

Constantinos Simserides CURRICULUM VITAE

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1. Personal data

Date and place of birth: 9 November 1967, Thessaloniki, Greece

Father, Mother: Demakos, Anna

Associate Professor of Theoretical Condensed Matter Physics, tenured, Section of Condensed Matter Physics, Department of Physics, School of Natural Sciences, National and Kapodistrian University of Athens (NKUA), (Appointment official paper (FEK) 2560, 20 October 2021). [FEK position proclamation 1149/2020, Election 30 June 2021].

I was Assistant Professor of Theoretical SolidState Physics at Section of Condensed Matter Physics, Department of Physics, NKUA), Greece. On 23 November 2009 I was elected tenure-track Assistant Professor. The appointment was finally financed on 2 January 2012. Appointment official paper (ΦΕΚ) 1061, 12 Dec 2011. Tenure obtained with official paper (ΦΕΚ) 755, 10 August 2016.

Web sites: <http://solid.phys.uoa.gr/> <http://www.phys.uoa.gr/> <http://www.uoa.gr/>

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Scopus ID [6603579491](https://orcid.org/0000-0003-1078-1974)

Web of Science ResearcherID [F-4307-2011](https://orcid.org/0000-0003-1078-1974)

Home Address: Fleming 81, GR-18344, Moschato, Athens. Home Tel : + 30 210 9408056

Alternative E-mail: simserides@gmail.com

2. Education – Military service

School Age: 3rd Elementary School, 1st Gymnasium, 1st Lyceum in Alexandroupolis, Greece.

7/9/1990: Bachelor degree in Physics: Department of Physics, NKUA, grade 8/10.

Diploma Thesis: Plasmon excitation in metallic films and spheres. Supervision: S. Martinos.

29/4/1996: PhD in Physics: Department of Physics, NKUA. PhD Thesis: Electronic properties and mobility of selectively doped heterostructures $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{As}$. Supervision: G. Triberis.

doi: [10.12681/eadd/7439](https://doi.org/10.12681/eadd/7439) url: <http://hdl.handle.net/10442/hedi/7439>

26/3/1996 - 26/9/1997 (18 months): Military Service.

3. Professional Activities

a. Research prior PhD

1996-1997 NKUA research program: Systematic study of electronic mobility of heterostructures. Theoretical Physics group (Scientific Director G. Triberis).

1993-1994 NKUA research program: Systematic theoretical and experimental study of electronic properties of heterostructures. Theoretical Physics group (Scientific Director G. Triberis), Semiconductor Characterization group (Scientific Director G. Papaioannou), X-ray Diffraction group (Scientific Director M. Kalamiotou).

7-8/1989 IAESTE (International Association for the Exchange of Students for Technical Experience) Scientific trainee, Semiconductor Optics Department, **Research Institute for Technical Physics of Hungarian Academy of Sciences, Budapest, Hungary**. Modelling LPE (Liquid Phase Epitaxy) growth of $\text{In}_{1-x}\text{Ga}_x\text{As}$ layers.

b. Research after PhD

1/10/2010-30/9/2011 Research collaborator, Department of Physics, NKUA, Greece. Research Program: Investigation of the temperature and electric field dependence of the electrical conductivity of disordered one-dimensional systems. Scientific director G. Triberis. Payment 1/8/2011 - 30/9/2011.

26/4/2007- Research fellowship with qualifications of a D level researcher, Institute of Materials Science,

- 25/4/2011 NCSR Demokritos, Athens, Greece. Scientific director: K. N. Trohidou.
- 1/1/2005-31/12/2006 **Research collaborator, Department of Physics, NKUA, Greece.** Research program of Hellenic Ministry of Education and EU "Pythagoras II". Systematic study of transport and optical properties of quantum wires. Scientific director G.P. Triberis. Payment: 16/8/2005-14/10/2005
- 1/1/2004-31/12/2005 **Research collaborator, Department of Physics, NKUA, Greece.** Research program of the Hellenic Ministry of Education "Heracleus". Transport properties of low-dimensional semiconductor systems. Scientific director G. P. Triberis. Payment: 1/1/2004-31/3/2004.
- 1/2/2005-31/3/2005 **Visiting scientist, Leibniz Institute for Neurobiology, Special Lab of Non-Invasive Brain Imaging, Magdeburg, Germany.** Non-Invasive Brain Imaging of the auditory cortex. Scientific director Henning Scheich.
- 1/8/2004-31/12/2004 **Research Fellowship, Leibniz Institute for Neurobiology, Special Lab of Non-Invasive Brain Imaging, Magdeburg, Germany.** Non-Invasive Brain Imaging of the auditory cortex. Scientific director Henning Scheich.
- 1/8/2002-31/7/2004 **Marie Curie Fellowship of EU at the Leibniz Institute for Neurobiology, Special Lab of Non-Invasive Brain Imaging, Magdeburg, Germany.** Non-Invasive Brain Imaging of the auditory cortex. Scientific director Henning Scheich.
- 1/7/2002-31/7/2002 **INFN Occasional Assignment, Dipartimento di Fisica, Università di Modena e Reggio Emilia, Modena, Italy.** Local optical properties of polymers. In the group of Elisa Molinari.
- 1/6/2001-30/11/2001 **INFN Assignment as Temporary collaborator, Dipartimento di Fisica, Università di Modena e Reggio Emilia, Modena, Italy.** Near field and ultrafast spectra of polymers and nanoaggregates. In the group of Elisa Molinari.
- 1/3/1999-28/2/2001 **INFN Research fellowship, within EU Training & Mobility of Researchers, Dipartimento di Fisica, Università di Modena e Reggio Emilia, Modena, Italy.** Optical properties and ultrafast dynamics of semiconductor quantum dots. In the group of Elisa Molinari.
- 1/6/1998-28/2/1999 **INFN (Istituto Nazionale per la Fisica della Materia) Research fellowship, Scuola Normale Superiore, Pisa, Italy.** Density of states and conductivity of two-dimensional electron gas subjected to an in-plane magnetic field. Hospitality of Mario Tosi.

c. Academic Teaching:

c1. Department of Physics, NKUA

Undergraduate courses:

Physics IV

Compulsory, 4th semester, 10YKO04, Academic Years 2021-

Particle relativistic energy and momentum. Four-momentum (momentum-energy four-vector). Covariant mass. Black body radiation. Photoelectric effect. Compton effect. Pair creation. Bremsstrahlung. De Broglie waves. Heisenberg uncertainty relations. Double-slit experiments. Wave function. Probability amplitude. Schrödinger equation. Simple one-dimensional problems: infinite and finite square wells, refraction and transmission in barriers, tunnel effect. Bohr atomic model. Quantum mechanical atomic model. Hydrogen atom. Angular momentum and spin. Fine structure. Polyelectronic atoms. Selected subjects from molecular, nuclear and particle physics. Teaching team: S. Gardelis, N. Saoulidou, C. Simserides, D. Fasouliotis.

States and Properties of Matter

Compulsory, 4th semester, Y0347, Academic Years 2012-2021 and

Free selection, 7th semester, 10EAE05, Academic Years 2021-

Chapter 1. Introduction to the states of matter. Chapter 2. Solids. Chapter 3. Chronological survey. Alloys. Synthesis - Structure - Properties - Performance. Chapter 4. Real Gases and Liquids. **Detailed syllabus at ACADEMIC DIDACTIC MEMORANDUM, and at http://users.uoa.gr/~csimseri/memo_teach.pdf**

For all Academic Years I have taught the course, evaluation by the students has been done. The results can be found in the relevant National and Kapodistrian University of Athens website. Video-lectures of this course (my part) exist for Academic Years 2015, 2019, 2020 on the National and Kapodistrian University of Athens website <https://delos.uoa.gr/opendelos/>

Quantum Optics & Lasers

Compulsory, solid state physics direction, Y3503, Academic Years 2012-2021 and

Compulsory, condensed matter physics direction, 10YK501, Academic Years 2021-

EM = electromagnetic 2LS = two-level system, 3LS = three-level system, PLS = poly-level system Chapter 1. Introduction to the quantum nature of light. Chapter 2. EM radiation - matter (2LS) interaction mechanisms. Chapter 3. Semiclassical approach of the EM radiation - matter (2LS, 3LS, PLS) interaction. EM field: classically. 2LS, 3LS, PLS: quantum mechanically. Chapter 4. Quantum-mechanical approach of the EM radiation - matter (2LS, 3LS, PLS) interaction. EM field quantization. Chapter 5. Lasers. Chapter 6. Density Matrix. Chapter 7. Several additional issues for laser properties and operation. **Detailed syllabus at ACADEMIC DIDACTIC MEMORANDUM, and at http://users.uoa.gr/~csimseri/memo_teach.pdf**

For all Academic Years I have taught the course, evaluation by the students has been done.

The results can be found in the relevant National and Kapodistrian University of Athens website.

Video-lectures of this course exist for Academic Years 2014, 2019, 2020 on the National and Kapodistrian University of Athens website <https://delos.uoa.gr/opendelos/> and from 2021 in youtube.

Core Lab Course II

Compulsory, 6th semester, Y0367. Academic Years 2013-2021

Lab exercises $\Sigma 1$ (Ge band gap) and $\Sigma 2$ (electron diffraction by graphite dust).

Basic Physics Lab III: Thermodynamics-Waves-Optics

Compulsory, 3rd semester, Y0333, Academic Years 2012-2021 and

Compulsory, 3rd semester, 10YKO07, Academic Years 2021-

Co-supervisor of this Lab for Academic Year 2018-2019 together with V. Likodimos and E. Syskakis.

Co-supervisor of this Lab for Academic Year 2019-2020 together with E. Syskakis.

Supervisor of this Lab for Academic Years 2020-2022 together with E. Skordas.

Contents of the whole Lab: 1. Prism and grating spectrometers. 2. Study of the isothermal process of a gas and of the Otto cycle. 3. Measurement of the speed of longitudinal waves and elastic constants in solids. 4. Measurement of convex lenses focal distance and relevant aberration errors. Dispersion. 5. Study of polarized light. Measurement of rotation capacity by polarimeter. 6. Measurements with Michelson interferometer. 7. Study of wave phenomena with microwaves (reflection, refraction, polarization, interference, diffraction, standing waves). 8. Study of Doppler effect in air.

Basic Physics Lab I: Introductory-Mechanics

Compulsory, 1st semester. I teach all these introductory exercises.

Academic Year 2020-2021 (Y0314), Academic Year 2021- (10YKO05)

Introduction to Solid State Physics Lab

Compulsory, 6th semester, Y063. Academic Years 2011-2015 Circle 2: 2 α . linear lattice oscillations 2 β . electron diffraction in graphite dust 2 γ . temperature dependence of color centers in glass.

Physics Lab IV: Waves - Optics

Compulsory, Δ' semester, Y043. Academic Year 2011-2012 Circle 2: 2.1 measurement of the speed of sound via the Quincke tube 2.2 study of light diffraction 2.3. spectrometer calibration and study of Hydrogen spectrum 2.4 measurements with the Michelson interferometer.

Postgraduate courses:

Materials Physics M.Sc Program, Department of Physics, National and Kapodistrian University of Athens. Special Topics in Condensed Matter Physics: **Nanostructures and Biomaterials. Academic Years 2015-**

1. Electronic structure of organic molecules including nucleic acids and DNA. 2. Tight-binding from molecules to polymers and solids. 3. Electronic states and transport in low-dimensional structures, 4. Quantum transport.

c2. Lecturer on contract (ΠΔ 407), University of Peloponnese, Greece.

3/2011- 8/2011 I taught autonomously, Department of Telecommunications Science & Technology, Tripolis. Physics II (compulsory B' semester, Acad. Years 2010-2011). Electromagnetism - Waves

c3. Assistant Professor on contract (ΠΔ 407), University of Patras, Greece.

3/2005 - 2/2008 I taught in 8 laboratory courses, at the **Materials Science** Department:

Physics I Labs (compulsory I semester, Acad. Years 2005-2006). Mechanics.

Physics II Labs (compulsory II semester, Acad. Years 2004-2006). Waves. Optics.

Physics III Labs (compulsory III semester, Acad. Years 2005-2007). Electromagnetism.

Materials Science I Labs (compulsory II semester, Acad. Years 2005-2007). Metallography, Crystallography.

Materials Science II Labs (compulsory I' semester, Acad. Year 2006-2007). Mechanical properties of materials, alloy phase diagrams.

Materials Science III Labs (compulsory IV semester, Acad. Year 2004-2005). Semiconductors.

Materials Science V Labs (compulsory VI semester, Acad. Years 2005-2007). Dielectric, magnetic, superconducting materials.

Materials Science VI Labs (compulsory VII semester, Acad. Years 2005-2008). Dielectric, magnetic, superconducting materials (Acad. Years 2005-2006). Optoelectronics (Acad. Years 2006-2008).

c4. Associate Professor on contract (IIΔ 407), Demokritos University of Thrace, Greece.

2/2000 - 8/2002 I taught autonomously 5 semester courses and all the corresponding labs. Specifically:

Molecular Biology and Genetics Department, Alexandroupolis

Physics (compulsory A' semester, Acad. Years 2000-2002). Optics. Lasers. Radioactivity-Dosimetry. Molecular Spectroscopy. Calorimetry.

Physical Chemistry (compulsory B' semester, Acad. Years 2000-2002). Thermodynamics. Photochemistry. Chemical Kinetics. Colloids.

Applied Mathematics (elective A' semester, Acad. Year 2001-2002). Topics of differential and integral calculus of one or more variables, useful in physics and physical chemistry.

Forestry & Management of Environment & Physical Resources Department, Orestias

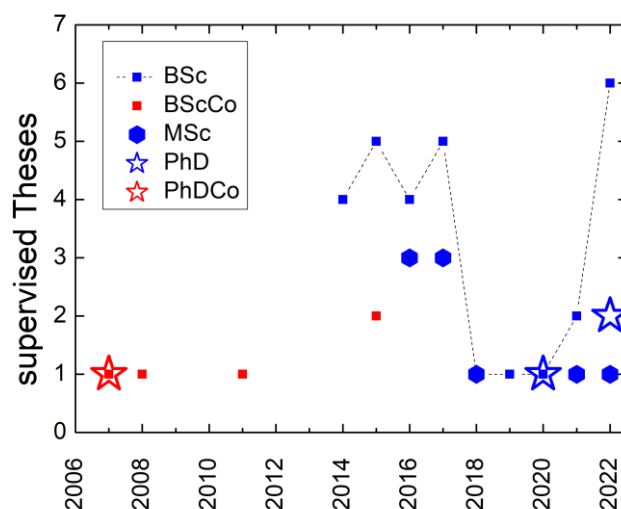
Physics (elective B' semester, Acad. Years 1999-2001). Soil physics elements. Optics elements. Hydrostatics. Hydrodynamics. Calorimetry. Radioactivity elements.

Agricultural Development Department, Orestias

Physics (compulsory A' semester, Acad. Years 2000-2002). Soil physics elements. Optics elements. Hydrostatics. Hydrodynamics. Calorimetry. Mechanics elements.

d. Supervision of PhD, MSc, BSc theses

| | Accomplished | | Current | |
|------------|--------------|----------------|-------------|----------------|
| | Supervision | Co-supervision | Supervision | Co-supervision |
| BSc | 27 | 7 | 2 | 0 |
| MSc | 8 | 0 | 1 | 0 |
| PhD | 1 | 1 | 2 | 0 |



| Also... | Accomplished | Current |
|--|--------------|---------|
| Member of 3-Member Advisory Committee (not supervisor) in PhD Theses | 3 | 1 |
| Member of 7-Member Examination Committee in PhD Theses | 7 | 0 |
| Member of 3-Member Examination Committee in MSc Theses | 16 | 0 |

d1. Supervision of PhD Theses

Current (2 supervisions, 1 participations in 3-member Advisory Committee) :

3. **I supervise** the PhD of [Marilena Mantela](#). From 6/11/2017 member of the 3-Member Advisory Committee: C. Simserides (supervisor), I. Lelidis, S. Gardelis. Subject: **Electronic structure of aperiodic and natural nucleic acid segments and influence of mutations in the charge transport and transfer properties.**

2. **I supervise** the PhD of [Andreas Morphis](#). From 18 February 2013 I am member of the 3-Member Advisory Committee: C. Simserides (co-supervisor on behalf of NKUA), K.N. Trohidou (supervisor, NCSR Demokritos), G.P. Triberis, with subject: Structure and magnetic properties of complex nanoparticles with core/shell morphology. 20 October 2014: Modification of the 3-Member Advisory Committee to C. Simserides (supervisor), G.P. Triberis, G. Papaioannou and of the Subject to **Electronic structure, magnetic and optical properties of organic molecules and nanomaterials.**

T4. From 04/02/2019, member of the 3-Member Advisory Committee for the supervision of the PhD of [Elli Georgopoulou - Kotsaki](#): Em. Syskakis (supervisor), V. Likodimos, C. Simserides. Subject: **Study of magnetothermal properties of monocrystalline and polycrystalline samples of the compounds $Mn_{5-x}Fe_xSi_3$ ($x=0-4$) in connection with modern applications (magnetic cooling, Medicine).**

Accomplished (1 supervision, 1 co-supervision, 3 participations in 3-member Advisory Committee) :

1. **I supervised** the PhD of **Konstantinos Lambropoulos**. From 11/04/2016 member of the 3-Member Advisory Committee: C. Simserides (supervisor), G.P. Triberis, V. Likodimos. Subject: **Energy structure and physical properties of periodic crystalline, quasi crystalline, fractal, amorphous, random and natural DNA segments.** Modified on 23/9/2019 to [Energy structure and charge transport-transfer in molecular wires: carbynes, and periodic, deterministic aperiodic and random DNA](#). Successfully examined Exam (excellent) on 12-2-2020.

T3. From 25/06/2018, member of the 3-Member Advisory Committee for the supervision of the PhD of [Christina Zacharaki](#): A. Dimoulas (supervisor, NCSR Demokritos, Institute of Nanoscience and Nanotechnology), V. Likodimos, C. Simserides. Subject: **Fabrication and study of $Zr_xHf_{1-x}O_2$ films with ferroelectric properties.** Successfully examined Exam (excellent) on 19-10-2022.

T2. From 11/04/2016, member of the 3-Member Advisory Committee for the supervision of the PhD of [Aristotelis Patsopoulos](#): G.P. Triberis (co-supervisor on behalf of NKUA), D. Kechrakos (supervisor, ASPETE), C. Simserides. Subject: [Dynamics of magnetization at finite temperature of composite nanostructured materials](#). Successful Exam (excellent) on 3 December 2019.

T1. From 25/06/2012, member of the 3-Member Advisory Committee for the supervision of the PhD of [Sigiava Aministragia Giamini](#): I. Grammatikakis (co-supervisor on behalf of NKUA), A. Dimoulas (supervisor, NCSR Demokritos, Institute of Nanoscience and Nanotechnology), C. Simserides. Subject **Physical Properties of Graphene and Topological Insulators for Applications in Nanoelectronics**. 30/5/2016: Subject modified to [Graphene and two-dimensional materials for nanoelectronic applications](#). Successful Exam (excellent) on 7 December 2017 with C. Simserides as co-supervisor on behalf of NKUA due to retirement of I. Grammatikakis.

C1. Together with G. P. Triberis, **I have co-supervised** the PhD Thesis of [Anna Zora](#) with subject [Optical properties of quantum dots](#). It is about magneto-absorption in the near field and photoluminescence of individual quantum dots. Successful Exam (excellent) on 7 December 2007.

d2. Supervision of MSc Theses

Accomplished 8 supervisions, all at Materials Physics MSc, Physics Department, NKUA. Current 1 supervisions.

| # | name | title | finished |
|---|-------------------------|---|------------------|
| 9 | Lazaros Chalkopiadis | Hole transfer in benzene, triazine and similar molecules with Tight Binding and RT-TDDFT | |
| 8 | Panagiota Bilia | Monte Carlo simulations of Heisenberg model with 1, 2, 3 and 4 neighbors for fcc lattice and with many neighbors for (Ga,Mn)N: dilute magnetic doping of fcc and hcp cation lattices. | 9 July 2021 |
| 7 | Marina Theodorakou | Charge transfer in aperiodic B-DNA segments, made of different base pairs: Tight Binding description at the base-pair level. | 4 July 2018 |
| 6 | Konstantinos Kaklamanis | Monte Carlo simulations of the classical Heisenberg ferromagnet in lattices of cubic symmetry. | 30 June 2017 |
| 5 | Marilena Mantela | Charge transfer in aperiodic B-DNA segments: Tight Binding description at the base-pair level. | 29 June 2017 |
| 4 | Christina Zacharaki | Theoretical study of the electronic structure of planar organic molecules (purines, pyrimidines and similar molecules) with linear combination of orbitals. | 22 February 2017 |

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|---|---------------------------|--|---------------|
| 3 | Georgios Georgiadis | Charge oscillations within one or two DNA base pairs: tight-binding description at the single base level. | 27 July 2016 |
| 2 | Charalambos Maroulis | Charge transfer in one-dimensional periodic DNA segments: tight binding description at the base-pair level. | 1 July 2016 |
| 1 | Konstantinos Lambropoulos | Charge transfer in one-dimensional periodic DNA segments: tight binding description at the base-pair level and at the single-base level. | 29 March 2016 |

d3. Supervision of BSc Theses

Accomplished: 27 supervisions, 7 co-supervisions

Current: 2 supervisions, 0 co-supervision.

All at Physics Dept. NKUA, except for C1-C2 (at Materials Science Dept., University of Patras, Greece).

| # | name | title | finished |
|----|-----------------------------|---|----------------|
| 29 | Adrianos Tsaros | Monte Carlo simulations of classical Heisenberg model with many neighbors in orthorhombic lattices. | |
| 28 | Ekaterini Orfanaki | Charge transfer in DNA polymers: fishbone wire description at the base-pair level. | |
| 27 | Polymnia Glabedaki | Charge transfer in cyclic carbynes via Tight Binding. | September 2022 |
| 26 | John Pispas | Charge transfer in dicyanopolyynes (NC...CC...CN) via Tight Binding and RT-TDDFT. | July 2022 |
| C5 | Demetrios Ntzioras | Electronic structure and charge transfer in benzene via DFT, TD-DFT and RT-TDDFT. Cosupervisor Konstantinos Lambropoulos. | October 2022 |
| 25 | Neokleia Margariti | Hole transfer in DNA dimers: fishbone - wire model description. | July 2022 |
| 24 | Stefania Kaklamani | Perception of consonant - dissonant diphonies by human auditory cortex. A paradigm of stimulations with the help of a computer. | October 2022 |
| 23 | Stamatina Georgiou | Monte Carlo simulations of classical Heisenberg model with many neighbors in tetragonal lattices. Pass it in tables and figures. | October 2021 |
| C4 | Iakovos Apostolou | Effect of vibrations on charge transfer in open carbynes. Cosupervisor Markos Antonios Alvertis. | July 2021 |
| 22 | Lazaros Chalcopiadis | Rabi oscillations in two-level and multi-level system with and without rotating wave approximation. | January 2021 |
| 21 | Maria Chliara | Monte Carlo simulations of the classical Heisenberg ferromagnet in fcc lattice. | January 2020 |
| 20 | Panagiota Bilia | Carrier transfer in periodic polymer B-DNA segments based on G-C & A-T monomers with purine on purine: Base-pair-level description within Tight-Binding Approach. | April 2019 |
| 19 | Theodoros Adamantopoulos | Charge transfer in carbynes: Tight-Binding Approach. | October 2018 |
| 18 | Phaedra Amargianou | Carrier transfer in polymer B-DNA segments between G and GGG (5'-3') via a bridge: Base-pair-level description within the Tight-Binding Approach. | October 2017 |
| 17 | Maria Bazini | Electronic structure of 1,3,5 triazine with linear combination of atomic and hybrid orbitals. | September 2017 |
| 16 | Demetrios Nioras | Electronic structure of planar hydrocarbons with linear combination of p_z atomic orbitals. | September 2017 |
| 15 | Evangelos Pappas | Study of nanoparticles of tetragonal crystal lattice. | September 2017 |
| 14 | Christina Vantaraki | Carrier transfer in periodic polymer B-DNA segments based on the G-C monomer: Base-pair-level description within the Tight-Binding Approach. | July 2017 |
| 13 | Adamantia Kosma | Charge transfer in DNA polymers: tight-binding description at the base-pair level. | September 2016 |
| 12 | Antonios-Demetrios Stefanou | Electronic structure of planar organic molecules with linear combination of atomic orbitals: emphasis on molecules with oxygen inside-outside molecular ring. | September 2016 |
| 11 | Stefanos - Basim Atata | Electronic structure of benzene with linear combination of atomic and hybrid orbitals. | September 2016 |
| 10 | Marina Theodorakou | Charge transfer in B-DNA homopolymers: description at the single-base level. | September 2016 |
| 9 | Konstantinos Kaklamanis | Charge transfer in small DNA segments: description at the single-base level. | September 2015 |
| 8 | Nicolaos Kamilaris | Linear combination of orbitals for the study of planar organic molecules with emphasis on benzene and carbazole. | September 2015 |
| T2 | Maria | Monte Carlo calculations of depth dose distributions of various qualities of | September |

| | | | |
|----|---------------------------|---|----------------|
| | Giotsaliti | Ionizing Radiation. Typical co-supervision for Physics Dept. NKUA. Supervised by Evangelos Pantelis, Medical School, NKUA. | 2015 |
| T1 | Dimitra Manousou | Compound electronic gates of MOS technology based on graphene: The possible role of grapheme quantum capacitance. Typical co-supervision for Physics Dept. NKUA. Supervised by Athanasios Dimoulas, NCSR. Demokritos. | September 2015 |
| 7 | Maria Chatzieleftheriou | Charge transfer in DNA polymers: description at the base-pair level. | May 2015 |
| 6 | Marilena Mantela | Study of the electronic structure of modified or not DNA bases and similar molecules with the linear combination of atomic orbitals method. | April 2015 |
| 5 | Spyridon Karydis | Study of nanoparticles of cubic crystal lattice. | April 2015 |
| 4 | Stylianos Vasilogamvros | 2-dimensional Bravais lattices. | November 2014 |
| 3 | Claudiana Grosler | Study of the electronic structure of nucleic acid bases and analogues with linear combination of atomic orbitals. | August 2014 |
| 2 | Konstantinos Lambropoulos | Charge transfer in small DNA segments: description at the base-pair level. | June 2014 |
| 1 | Athanasios Alevizos | Study of the electronic structure of planar organic molecules with linear combination of atomic orbitals. | January 2014 |
| C3 | Demetrios Bronowski | An introduction to quantum transport. Co-supervision together with Georgios Triberis. | September 2011 |
| C2 | Konstantinos Koumpouras | Spintronics in dilute magnetic semiconductor quantum wells. Co-supervision together with Iosif Galanakis. | October 2008 |
| C1 | Laurence Hawke | Calculation of tight-binding parameters for the modeling of charge transfer along DNA. Co-supervision together with George Kalosakas. | October 2007 |

d4. Examination of PhD Theses

(Member of 7-Member Exam Committee, * = supervisor, # = in 3-Member Advisory Committee)

Accomplished: All at Physics Department, NKUA.

| | name | title | finished |
|-----|-----------------------------|--|------------------|
| 7 # | Christina Zacharaki | Fabrication and study of $Zr_xHf_{1-x}O_2$ films with ferroelectric properties. | 19 October 2022 |
| 6 | Dimitrios Birbiliotis | Study of electrical properties of dielectric films for MEMS and microelectronic structures applications. | 13 July 2022 |
| 5 * | Konstantinos Lambropoulos | Energy structure and charge transport-transfer in molecular wires: carbynes, and periodic, deterministic aperiodic and random DNA. | 12 February 2020 |
| 4 # | Aristotelis Patsopoulos | Dynamics of magnetization at finite temperature of composite nanostructured materials. | 3 December 2019 |
| 3 # | Sigiava Aminalragia Giamini | Graphene and two-dimensional materials for nanoelectronic applications. | 7 December 2017 |
| 2 | Theodoros Papaconstantinou | Methods of Numerical Science and Statistical Physics for the study of Disordered Systems. | 1 June 2016 |
| 1 | Margarita Dimakogianni | Study of the electrical conductivity of one-dimensional disordered systems: Application to DNA and other similar structures. | 18 January 2012 |

d5. Examination of MSc Theses (Member of the 3-Member Exam Committee, * = supervisor)

All accomplished at Materials Physics MSc, Physics Department, NKUA.

| | name | title | finished |
|------|------------------------|---|--------------|
| 16 * | Panagiota Bilia | Monte Carlo simulations of Heisenberg model with 1, 2, 3 and 4 neighbors for fcc lattice and with many neighbors for (Ga,Mn)N: dilute magnetic doping of fcc and hcp cation lattices. | 9 July 2021 |
| 15 | Stefanos - Basim Atata | Preparation of VO_2 and V_2O_3 with Fe impurities in bulk and layer forms and study of their properties in the MIT regime. | 25 July 2020 |
| 14 | Anastasios Sourpis | Monte Carlo methods with mean field boundary conditions. | 6 June 2020 |
| 13 | Konstantinos Atzemis | Study of thermodynamical properties of (V,W/Fe)O₂ compounds in the Metal Insulator Transition (MIT) regime. | 12 July 2019 |
| 12 | Anastasia Vrettou | Synthesis and electrical properties of Sr-Pd-O compounds. | 8 July 2019 |
| 11 * | Marina Theodorakou | Charge transfer in aperiodic B-DNA segments, made of different base pairs: Tight Binding description at the base-pair level. | 4 July 2018 |
| 10 | Nina | Complete transfer of states in quantum wires with local symmetries. | 14 June |

| | | | |
|-----|---------------------------|---|------------------|
| | Georgoulea | | 2018 |
| 9 * | Konstantinos Kaklamanis | Monte Carlo simulations of the classical Heisenberg ferromagnet in lattices of cubic symmetry. | 30 June 2017 |
| 8 * | Marilena Mantela | Charge transfer in aperiodic B-DNA segments: Tight Binding description at the base-pair level. | 29 June 2017 |
| 7 | Michael Akritidis | Quantum Ising chain in inhomogeneous transverse magnetic field. | 11 May 2017 |
| 6 * | Christina Zacharaki | Theoretical study of electronic structure of planar organic molecules (purines, pyrimidines and similar molecules) with linear combination of orbitals. | 22 February 2017 |
| 5 * | Georgios Georgiadis | Charge oscillations within one or two DNA base pairs: tight-binding description at the single-base level. | 27 July 2016 |
| 4 * | Charalambos Maroulis | Charge transfer in one-dimensional periodic DNA segment: tight-binding description at the base-pair level. | 1 July 2016 |
| 3 * | Konstantinos Lambropoulos | Charge transfer in periodic DNA segments: tight-binding description at the base-pair level and at the single-base level. | 29 March 2016 |
| 2 | Aristoteles Patsopoulos | Study of the exchange polarization phenomenon in Bimagnetic Nanowires. | 22 March 2016 |
| 1 | Sofia Bousiadi | Calculation of the potential in an electrolytic cell with asymmetric electrodes. | 29 October 2015 |

e. Administrative duties at Physics Dept. NKUA

- * Member of the General Assembly, 2012-2017 .
- * Responsible for the Department's Communication - Activities promotion at the official NKUA website, in collaboration with NKUA Press Office, 2017-2019.
- * Member of Committee for brossure of Excellence - Innovation at the Department of Physics, NKUA, 2019.
- * Member of Committee for the Selection of Postgraduate Students, 2018-2024.
- * Member of Steering Commitee for Postgraduate Studies Program, 2018-2024.
- * Deputy Responsible for students' Practice, > 6/2016.
Αναπληρωτής Υπεύθυνος για την Πρακτική Άσκηση των φοιτητών-τριών > 6/2016 μαζί με Ε. Νισταζάκη.
Υπεύθυνος για την Πρακτική Άσκηση των φοιτητών-τριών > 1/2023 μαζί με Ε. Νισταζάκη.
- * 1/5 Representatives of Department of Physics, Special Interdepartmental Committee of the Postgraduate Studies Program "Microelectronics", 2016-2020.
- * Academic Officer of Department of Physics, NKUA, for organization of Open Days, 24 Nov 2017, 3 November 2018, 1 March 2019, 1 November 2019, 6 March 2020
- Deputy member of the Committee for Monitoring and Receipt of Supplies of Goods / Services with a net value up to 20000 euros, > 8/2019 -
- * «Ο Τομέας Φυσικής Συμποκνωμένης Ύλης έχει ορίσει τον Αναπληρωτή Καθηγητή κ. Κων/νο Σιμσερίδη ως μέλος της Επιτροπής Επικοινωνίας και Προβολής Δραστηριοτήτων Τμήματος ("Ανοικτές Πύλες", παρουσιάσεις Τομέων σε μαθητές, κ.λ.π.)»

f. Secondary Education (Gymnasium - Lyceum)

| | |
|------------|---|
| 1991-1994 | Olympia Caravouzi Preparatory School, Aghiou Therapontos 14, Zografos, Athens. Lyceum Physics and Chemistry. |
| 1993-1995 | "Military" Preparatory School, Emmanuel Benaki 41, Athens. Lyceum Physics, preparation for University exams. |
| 1997-1998 | "Domi" Preparatory School, 14th May 35, Alexandroupolis. Lyceum Geometry. |
| 1997-1998 | Institute of Professional Education, Catacouzinou 16, 68100 Alexandroupolis. Winter Semester. Semester Course for Decorators: "Technology of Materials". |
| 1997 -1998 | "Minors' Protection Society", Alexandroupolis. |

g. Educational programs to Lyceum teachers

- (1) C. Simserides - C. Kapetanides: "Physical Principles and Technological Applications of Semiconductor Nanostructures in electronics and optoelectronics. Digital Circuits. Computer Architecture and Networks. Laser Technology and applications". A 40h educational seminar to high school - lyceum teachers, Orestias, Greece, February - March 1998.
- (2) Th. Nalbandi - C. Simserides. "Computer Applications". A 40h educational seminar to high school - lyceum teachers, Alexandroupolis, Greece, May - June 1998.

h. Additional Data

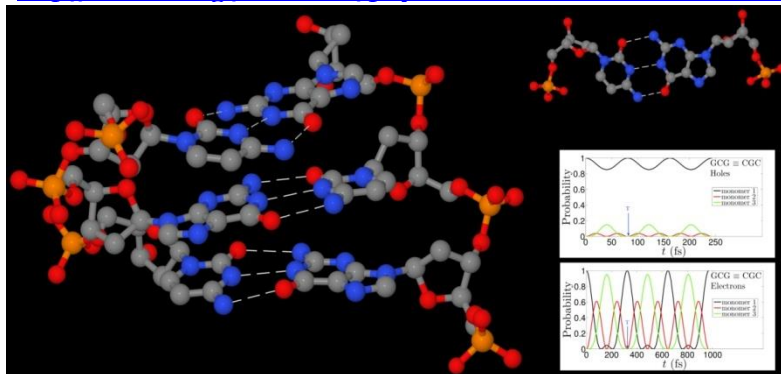
- * I have sporadically worked as a construction worker and for 1.5 month as a waiter (1989-1992).
- * Computing: I extensively use algorithms and programs to solve physical problems. MS-DOS, MS-Windows and Unix-Linux Operation Systems. Fortran, pascal, c, matlab, LaTeX, etc. Various commercial, scientific and office applications. Seminar by EU and Greek Science - Civilisation Ministry (1991).
- * Languages: Hellenic (Greek), English ["excellent": advanced proficiency (C2) level: Examination for the Certificate of Proficiency in English (ECPE), University of Michigan].
Italian (good), French (a little), German (a little).
- * Member of Institute of Physics (IOP)
- * Member of American Physical Society (APS)
- * Member of Scientific Society Micro & Nano (Greece).
- * Complimentary membership to IFFS (Institute of Fundamental and Frontier Sciences), until 31 Dec 2021.
- * Member of Hellenic Society for the Science and Technology of Condensed Matter (HSSTCM).

4. RESEARCH INTERESTS *Nanostructures and Biomaterials*

- **Spintronics.** Magnetic properties of diluted magnetic semiconductors and of their nanostructures.
- **Biophysics.** Charge transfer and transport in nucleic acids and other organic systems. Molecular structure.
- **Biomaterials.** Novel oligomers and polymers based on bioelements.
- **Quantum Optics.** Coherence. Optical properties of quantum dots, quantum wells, and so on, like absorption, emission, with or without magnetic field.
- **Semiconductor nanostructures** with or without magnetic impurities (thermodynamics, spintronics, transport).
- **Ab initio calculations and Tight Binding variants.** As a tool.

I have organized the Group **Physics of nanostructures and biomaterials**

Group webpage http://users.uoa.gr/~csimseri/physics_of_nanostructures_and_biomaterials.html



- Current composition (students, postdoctoral fellows, and technicians) of the laboratory

Constantinos Simserides (Associate Professor of Theoretical Condensed Matter Physics),

Konstantinos Lambropoulos (Post-Doctoral Researcher),

Andreas Morphis (PhD student),

Marilena Mantela (PhD student),

Lazaros Chalcopiadis (MSc student),

Adrianos Tsaros, Ekaterini Orfanaki, Polymnia Glabedaki, Demetrios Ntzioras, Stefania Kaklamani (BSc students), Raef Milies, Internat. Internship: RISE worldwide **DAAD** BSc student **Raef Milies** from Universität Leipzig, Germany, 23 Aug - 15 Oct 2022.

- Current International Collaborators:

- **Dr. Rosa Di Felice**, Associate Professor, Department of Physics and Astronomy & Department of Quantitative and Computational Biology, University of Southern California, Los Angeles, USA & CNR-NANO, Modena, Italy, difelice@usc.edu
- **Dr. Samira Fathizadeh**, Assistant Professor, Department of Physics, Urmia University of Technology, Urmia, Iran, s.fathizadeh@sci.uut.ac.ir
- **Dr. Antonios Alvertis**, Materials Sciences Division, Lawrence Berkeley National Laboratory & Department of Physics, University of California, Berkeley, California, USA, amalvertis@lbl.gov
- **Dr. Paolo Moretti**, Deputy Chair - Group Leader Biomaterials & Biosystems Modeling, Institute Materials Simulation, Department of Materials Science, Friedrich-Alexander University Erlangen-Nuremberg, paolo.moretti@fau.de
- **Dr. Sourav Kundu**, Assistant Professor, Department of Physics, Techno India University, India, phys.abcd@protonmail.com
- **Dr. Enrique Maciá**, Professor, Departamento de Física de Materiales, Facultad CC. Físicas, Universidad Complutense de Madrid, Spain, emaciaba@fis.ucm.es

- Number of trainees: Ph.D. students (2) and postdoctoral fellows (2) trained thus far.

- Scientific Supervisor of **PhD student Konstantinos Lambropoulos**. Energy structure & charge transport-transfer in molecular wires: carbynes, and periodic, deterministic aperiodic and random DNA. Successfully examined (excellent) 12 Feb 2020. **HFRI** PhD Scholarship, 21/8/2017-30/9/2019.
- Scientific *Co-Supervisor* (with G. P. Triberis) of **PhD student Anna Zora**. Optical properties of quantum dots. Successfully examined (excellent) 7 Dec 2007.
- Scientific Supervisor of **post-doctoral fellow Dr. Konstantinos Lambropoulos**. Charge transfer and transport in open and closed molecular wires made of carbon or carbon - nitrogen. Young Researchers - cycle B, **ESF**, 01/04/2020 - 30/06/2021.
- Scientific Supervisor of **post-doctoral fellow Dr. Maria Tassi**. Electronic structure, charge transfer, and charge oscillations and optical properties of nucleic acid bases and DNA

oligomers or polymers. Fellowship of Excellence for postdoctoral research in Greece, **IKY-Siemens**, 15/9/2014 - 14/9/2016. **[+]** • Supervisor of **8 MSc Theses** and **~30 BSc Theses**. • Supervisor of **2 International Internships**: **RISE worldwide DAAD** BSc student **Richard Lopp** from Georg-August-Universität Göttingen, Germany, 2 Jul - 6 Sep 2015, Evolution of electron or hole transfer along DNA & **Erasmus+** MSc student **Chloe Olacia**, from Materials Engineering, Université de Montpellier, France, 24 May - 30 Jul 2021, Charge transfer in carbynes & carbon-nitrogen polymers (like NCCCCN), via density functional theory & tight-binding.

Some details follow:

Supervisions of Post-doctoral Researchers, PhD, MSc, BSc students within the Group

Within the Group, I have supervised (x) and supervise (*) the Theses:

| | BSc | MSc | PhD |
|----------------------------------|-----|-----|-----|
| Andreas Morphis | | | * |
| Konstantinos Lambropoulos | x | x | x |
| Marilena Mantela | x | x | * |
| Marina Theodorakou | x | x | |
| Panagiota Bilia | x | x | |
| Lazaros Chalkopiadis | x | | |
| Stefania Kaklamani | * | | |

Former members: **Maria Tassi** (now post-doc at Institute of Nanoscience and Nanotechnology, NCSR Demokritos, Athens), **Konstantinos Kaklamanis** (now PhD student at Materials Science and Engineering Department, University of Ioannina), **Christina Zacharaki** (now PhD student at Institute of Nanoscience and Nanotechnology, NCSR Demokritos - Physics Department NKUA), **Maria Chatzieftheriou** (MSc at University of Copenhagen, Denmark, PhD student at ESPCI Paris, France), **Christina Vantaraki** (MSc and now PhD student at Uppsala University, Ångströmlaboratoriet), **Georgios Georgiadis** (now at private secondary education), **Charalambos Maroulis** (now at private secondary education), **Marina Theodorakou** (now at private secondary education).

Within the Group I have supervised **one (1) PhD Thesis** ([K. Lambropoulos](#)), I supervise **two (2) PhD Theses** (M. Mantela, A. Morphis). I have supervised **eight (8) MSc Diploma Theses** [[P. Bilia](#), [M. Theodorakou](#), [K. Kaklamanis](#), [M. Mantela](#), [Ch. Zacharaki](#), [G. Georgiadis](#), [Ch. Maroulis](#), [K. Lambropoulos](#)]. I have supervised **twenty three (23) BSc Diploma Theses** [[I. Apostolou](#), [L. Chalkopiadis](#), [M. Chliara](#), [P. Bilia](#), [T. Adamantopoulos](#), [M. Bazini](#), [D. Nioras](#), [Ev. Pappas](#), [F. Amargianou](#), [Ch. Vantaraki](#), [A.-D. Stefanou](#), [S.-B. Atata](#), [M. Theodorakou](#), [A. Kosma](#), [K. Kaklamanis](#), [N. Kamilaris](#), [M. Chatzieftheriou](#), [M. Mantela](#), [S. Karydis](#), [S. Vasilogamvros](#), [C. Grossler](#), [K. Lambropoulos](#), [A. Alevizos](#)], I supervise **four (4) BSc Diploma Theses** [[D. Ntzioras](#), [S. Kaklamani](#), [N. Margariti](#), [S. Georgiou](#)].

Internships

RISE worldwide, DAAD (Deutscher Akademischer Dienst). I supervised the Internship of BSc student **Richard Lopp** (Georg-August-Universität Göttingen, Germany) [2 Jul - 6 Sep 2015]. Project: **Temporal and spatial evolution of electron or hole transfer along DNA**. Now he is a PhD student at University of Waterloo & Institute for Quantum Computing, Canada.

Erasmus + (code F MONTPEL54). I supervise the Internship of **Chloe Olacia**, from Materials Engineering, Polytech School of Université de Montpellier, France. From 24/05/2021 to 30/07/2021. Title: Charge transfer in carbynes and carbon-nitrogen polymers (like NCCCCN), via density functional theory and tight-binding.

Our previous research, computing and academic projects received approximately 204 k€ and > 10 M core hours.

Scientific Supervisor of the following research projects (173 k€):

- Young Researchers - cycle B, **ESF**, 01/04/2020-30/06/2021, **37 k€**. Charge transfer and transport in open and closed molecular wires made of carbon or carbon-nitrogen, with Dr. K. Lambropoulos & A. Morphis.
- **IKY** PhD scholarship of Marilena Mantela, 24/04/2018-24/04/2021, **30 k€**. Electronic structure of aperiodic and natural nucleic acid segments and influence of mutations in the charge transport and transfer properties.
- **HFRI** PhD scholarship of Konstantinos Lambropoulos, 21/8/2017-30/9/2019, **23 k€**. Energy structure and physical properties of periodic, quasi-periodic, fractal,

amorphous, random and natural DNA segments. • **IKY** fellowship of excellence for postdoctoral studies in Greece - **Siemens** program, grant for Dr. Maria Tassi, 15/9/2014-14/9/2016, **32 k€**. Electronic structure, charge transfer and charge oscillations and optical properties of nucleic acid bases and DNA oligomers or polymers. • **IKY** fellowship of excellence for postgraduate studies in Greece - **Siemens** program, grant for PhD Student Andreas Morphis, 1/3/2013-31/8/2016, **51 k€**. Electronic structure, magnetic and optical properties of organic molecules and nanomaterials.

Scientific Supervisor of the following computing projects (10.5 Mch):

- CODNA (charge oscillations in DNA) at supercomputer ARIS **ΥΠΑΙΘ**, 6.6 M core hours (ch), • MONanoBio (charge movement in atom-thick nanowires based on bioelements) at supercomputer ARIS **ΥΠΑΙΘ**, 3.8 Mch, 2015-2022, + current **1.5 Mch 2022-2023**.
- Electronic structure of nucleic acid bases & analogues, 0.1 Mch, LinkSCEEM-2 Cyprus-Egypt, 2015. • We maintain a cluster of 13 machines for modest calculations.

Academic Supervisor and author of the following grants (31 k€):

- Academic textbooks (1) States of Matter, (2) Quantum Optics and Lasers, Kallipos **ESF** Oct 2014 - Sep 2015, **15 k€**. • Open Academic Courses at the University of Athens (1) States of Matter, (2) Quantum Optics and Lasers, **ESF** Mar 2014 - Sep 2015, **1 k€**. • Academic textbooks. Kallipos+ (1) Tight Binding in Molecules, Polymers, Solids, (2) Quantum Optics, **ΠΑΕ ΥΠΑΙΘ** July 2021 - August 2022, **15 k€**.

RESEARCH GRANTS

| Project Title | Funding source | Period | My role |
|---|----------------|-------------------------------|-----------------------|
| Fellowship of Excellence for postgraduate studies in Greece - Siemens Program, grant for PhD Student Andreas Morphis. [Electronic structure, magnetic and optical properties of organic molecules and nanomaterials.] | IKY | 1/3/2013 - 31/8/2016 | Scientific Supervisor |
| Fellowship of Excellence for postdoctoral research in Greece - Siemens Program, grant for Dr. Maria Tassi. [Electronic structure, charge transfer and charge oscillations and optical properties of nucleic acid bases and DNA oligomers or polymers.] | IKY | 15/9/2014 - 14/9/2016 | Scientific Supervisor |
| PhD Scholarship for PhD Student Konstantinos Lambropoulos. [Energy structure and charge transport-transfer in molecular wires: carbynes, and periodic, deterministic aperiodic and random DNA.] | HFRI | 21/8/2017 - 30/9/2019 | Scientific Supervisor |
| PhD scholarship for PhD Student Marilena Mantela. [Electronic structure of aperiodic & natural nucleic acid segments and influence of mutations in the charge transport & transfer properties.] | IKY | 24/04/2018 - 24/04/2021 | Scientific Supervisor |
| Young Researchers - cycle B, Operational Program Human Resources Development, Education and Lifelong Learning 2014-2020 [Charge transfer and transport in open and closed molecular wires made of carbon or carbon - nitrogen.] With Dr. K. Lambropoulos and PhD student A. Morphis. | ESF | 01/04/2020 - 30/06/2021 | Scientific Supervisor |

IKY = Hellenic State Scholarship Foundation. HFRI = Hellenic Foundation for Research and Innovation. ESF = European Social Fund. ΠΑΕ ΥΠΑΙΘ = Public Investments Program, Hellenic Ministry of Education.

ACADEMIC GRANTS

| Project Title | Funding | Period | Role of the PI |
|---------------|---------|--------|----------------|
|---------------|---------|--------|----------------|

| | source | | |
|---|---------------|-------------------------|--------|
| Academic textbooks (1) States of Matter , (2) Quantum Optics and Lasers , action "Kallipos" (http://www.kallipos.gr/) | ESF | Oct 2014 - Sep 2015 | Author |
| (1) States of Matter , (2) Quantum Optics and Lasers , action "Open Academic Courses at the University of Athens" (http://ocw-project.uoa.gr/) | ESF | Mar 2014 - Sep 2015 | Author |
| Academic textbooks. Action "Kallipos+" (http://www.kallipos.gr/) In Thematic category 2-II, Natural Sciences and Agricultural Sciences. (1) Tight Binding in Molecules, Polymers, Solids . In category Π2.4 Monographs, received the 1 st higher grade. (2) Quantum Optics . In category Π2.1, Undergraduate Textbooks, received the 2 nd higher grade. | ΠΔΕ ΥΠΙΑΙΘ | July 2021 - August 2022 | Author |

COMPUTING GRANTS

| Project Title | Funding source | Period | Role of the PI |
|---|--------------------------------|-----------|-----------------------|
| Project CODNA (Charge Oscillations in DNA) on supercomputer ARIS: pilot project 90.000 core hours (ch), preparatory project 500.000 ch, 4 production projects 4 × 1.500.000 = 6.000.000 ch. Project MONanoBio (Charge Movement in atom-thick Nanowires based on Bioelements), current 800000 ch + 1500000 ch. | Hellenic Ministry of Education | 2015-2022 | Scientific Supervisor |
| Project Electronic structure of nucleic acid bases and analogues, with ~ 100 000 hours at LinkSCEEM-2 project. | Cyprus - Egypt | 2015 | Scientific Supervisor |

We also use computer resources of the National and Kapodistrian University of Athens Computer Center and of a Group Computer Center constructed mainly via the grants that we host.

5. PUBLICATIONS

A. 54 publications in international journals with referees

B. 3 books and 1 invited chapter (monograph) in a book

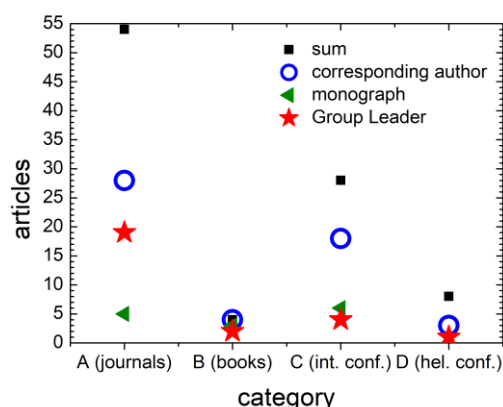
C. 28 publications in international conference proceedings, some of them in international journals with referees, 15 with referees #

D. 8 topical conference proceedings or international schools' proceedings

E. 2 popular science publications

F. 1 supervision of book translation

Highlights



| number of authors in publication | Type A | Type B | Type C | Type D | Type E |
|----------------------------------|----------|----------|----------|----------|----------|
| monograph | 5 | 3 | 6 | 0 | 1 |
| 2 authors | 12 | 0 | 1 | 2 | 1 |
| 3 authors | 15 | 1 | 13 | 3 | |
| 4 authors | 12 | 0 | 6 | 2 | |
| ≥ 5 authors | 10 | 0 | 2 | 1 | |

| | | | | | |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Group Leader in Athens | 19 | 2 | 4 | 1 | |
| <i>my position in author list</i> | <i>Type A</i> | <i>Type B</i> | <i>Type C</i> | <i>Type D</i> | <i>Type E</i> |
| 1st author | 18 | 4 | 14 | 3 | 2 |
| 2nd author | 16 | 0 | 8 | 2 | |
| 3rd author | 7 | 0 | 4 | 1 | |
| 4th author | 8 | 0 | 0 | 1 | |
| ≥ 5th author | 5 | 0 | 2 | 1 | |
| * corresponding author | 28 | 4 | 18 | 3 | 2 |
| Total number of publications | 54 | 4 | 28 | 8 | 2 |

A. 54 publications in international journals with referees

- a54) Energy Transport along α -Helix Protein Chains: External Drives and Multifractal Analysis
N. Sefidkar, S. Fathizadeh, F. Nemati and **C. Simserides**
Materials 15 (2022) 2779 doi: [10.3390/ma15082779](https://doi.org/10.3390/ma15082779)
- a53) Cyclo[18]carbon including Zero-Point Motion: Ground State, First Singlet and Triplet Excitations, and Hole Transfer
K. Lambropoulos, A. M. Alvertis, A. Morphis and **C. Simserides**
Physical Chemistry Chemical Physics 24 (2022) 7779-7787 doi: [10.1039/D2CP00343K](https://doi.org/10.1039/D2CP00343K)
[Heterocitations 2](#)
- a52) LCAO electronic structure of nucleic acid bases and other heterocycles and transfer integrals in B-DNA, including structural variability
M. Mantela, **C. Simserides***, and Rosa Di Felice*
Materials 14 (2021) 4930 (20 pages) doi: [10.3390/ma14174930](https://doi.org/10.3390/ma14174930)
[Heterocitations 1](#)
- a51) Averaging method and coherence applied to Rabi oscillations in a two-level system
L. Chalkopiadis and **C. Simserides***
Journal of Physics Communications 5 (2021) 095006 (16 pages) doi: [10.1088/2399-6528/ac1abf](https://doi.org/10.1088/2399-6528/ac1abf)
Related version at [arXiv:2105.12127](https://arxiv.org/abs/2105.12127)
- a50) Effects of structural dynamics on charge carrier transfer in B-DNA: a combined MD and RT-TDDFT study
M. Mantela, A. Morphis, K. Lambropoulos, **C. Simserides***, R. Di Felice*
The Journal of Physical Chemistry B 125 (2021) 3986-4003
doi: [10.1021/acs.jpcc.0c11489](https://doi.org/10.1021/acs.jpcc.0c11489)
[Heterocitations 2](#)
- a49) Hole transfer in open carbynes
C. Simserides*, A. Morphis, K. Lambropoulos
Materials 13 (2020) 3979 (24 pages)
doi: [10.3390/ma13183979](https://doi.org/10.3390/ma13183979)
Special Issue: Electronic Structure, Carrier Transfer and Transport in Polymers and Biopolymers
https://www.mdpi.com/journal/materials/special_issues/electronic_carrier_polymer_materials
- a48) Hole Transfer in Cumulenic and Polyynic Carbynes
C. Simserides*, A. Morphis, K. Lambropoulos
The Journal of Physical Chemistry C 124 (2020) 12834–12849
doi: [10.1021/acs.jpcc.0c03763](https://doi.org/10.1021/acs.jpcc.0c03763)
[Heterocitations 1](#)
- a47) Tight-Binding modeling of nucleic acid sequences: interplay between various types of order or disorder and charge transport
K. Lambropoulos* and **C. Simserides***
Symmetry 11 (2019) 968 (26 pages)
doi: [10.3390/sym11080968](https://doi.org/10.3390/sym11080968)
Invited Review to the special issue of Symmetry, [Symmetry and Asymmetry in Quasicrystals or Amorphous Materials](#), with guest Editor Enrique Macia.
[Heterocitations 16](#)
One of Symmetry 2021 Best Paper Awards (by Prize Awarding Committee & Editorial Board of Symmetry)
- a46) Quasi-periodic and fractal polymers: Energy structure and carrier transfer
M. Mantela, K. Lambropoulos, M. Theodorakou, and **C. Simserides***
Materials 12 (2019) 2177 (30 pages)
doi: [10.3390/ma12132177](https://doi.org/10.3390/ma12132177)
Also at [arXiv:1901.06273](https://arxiv.org/abs/1901.06273)

Heterocitations 5

a45) Periodic, quasiperiodic, fractal, Kolakoski, and random binary polymers:

Energy structure and carrier transport

K. Lambropoulos and C. Simserides*

Physical Review E **99** (2019) 032415 (17 pages)doi: [10.1103/PhysRevE.99.032415](https://doi.org/10.1103/PhysRevE.99.032415)Also at [arXiv:1808.04764](https://arxiv.org/abs/1808.04764)Heterocitations 16This article has been honored with the **Academy of Athens, Lycurgus Award, 2022**, for original research in Theoretical Physics.

a44) Periodic polymers with increasing repetition unit: Energy structure and carrier transfer

K. Lambropoulos, C. Vantaraki, P. Bilia, M. Mantela, and C. Simserides*

Physical Review E **98** (2018) 032412 (14 pages + 23 pages Supplemental Material)doi: [10.1103/PhysRevE.98.032412](https://doi.org/10.1103/PhysRevE.98.032412)Also at arXiv [arXiv:1808.05614](https://arxiv.org/abs/1808.05614)Heterocitations 3

a43) Spectral and transmission properties of periodic 1D Tight-Binding lattices with a generic unit cell: an analysis within the transfer matrix approach

K. Lambropoulos and C. Simserides

Journal of Physics Communications **2** (2018) 035013 (19 pages)doi: [10.1088/2399-6528/aab065](https://doi.org/10.1088/2399-6528/aab065)Heterocitations 9

a42) Electronic structure and charge transport properties of atomic carbon wires

K. Lambropoulos and C. Simserides*

Physical Chemistry Chemical Physics **19** (2017) 26890 - 26897doi: [10.1039/c7cp05134d](https://doi.org/10.1039/c7cp05134d)Heterocitations 17

a41) RT-TDDFT study of hole oscillations in B-DNA monomers and dimers

M. Tassi, A. Morphis, K. Lambropoulos, and C. Simserides

Cogent Physics **4** (2017) 1361077 (12 pages)doi: [10.1080/23311940.2017.1361077](https://doi.org/10.1080/23311940.2017.1361077)Related work at [arXiv:1704.07413](https://arxiv.org/abs/1704.07413)Heterocitations 8

a40) Electronic structure and carrier transfer in B-DNA monomer polymers and dimer polymers:

Stationary and time-dependent aspects of wire model vs. extended ladder model

K. Lambropoulos, M. Chatzieftheriou, A. Morphis, K. Kaklamanis, R. Lopp, M. Theodorakou, M. Tassi, and C. Simserides*

Physical Review E **94** (2016) 062403 (22 pages)doi: [10.1103/PhysRevE.94.062403](https://doi.org/10.1103/PhysRevE.94.062403)Related work at [arXiv:1609.00235v1](https://arxiv.org/abs/1609.00235v1)Heterocitations 11We have also published an Erratum. Publisher's Note: Electronic structure and carrier transfer in B-DNA monomer polymers and dimer polymers: Stationary and time-dependent aspects of a wire model versus an extended ladder model [Phys. Rev. E 94, 062403 (2016)] K. Lambropoulos, M. Chatzieftheriou, A. Morphis, K. Kaklamanis, R. Lopp, M. Theodorakou, M. Tassi, and C. Simserides, Phys. Rev. E 102, 019901 - Published 23 July 2020 doi: [10.1103/PhysRevE.102.019901](https://doi.org/10.1103/PhysRevE.102.019901)

a39) Wire and extended ladder model predict THz oscillations in DNA monomers, dimers and trimers

K. Lambropoulos, K. Kaklamanis, A. Morphis, M. Tassi, R. Lopp, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou, and C. Simserides*

Journal of Physics: Condensed Matter **28** (2016) 495101 (19 pages)doi: [10.1088/0953-8984/28/49/495101](https://doi.org/10.1088/0953-8984/28/49/495101)

Related work at [arXiv:1609.00180v1](https://arxiv.org/abs/1609.00180v1)
 Heterocitation 3

a38) Lowest ionization and excitation energies of biologically important heterocyclic planar molecules

M. Mantela, A. Morphis, M. Tassi, and C. **Simsides***
 Molecular Physics **114** (2016) 709-718
 doi: [10.1080/00268976.2015.1113313](https://doi.org/10.1080/00268976.2015.1113313)
 Heterocitations 4

a37) Unbiased charge oscillations in B-DNA: monomer polymers and dimer polymers

K. Lambropoulos, M. Chatzieftheriou, A. Morphis, K. Kaklamanis, M. Theodorakou, and C. **Simsides***

Physical Review E **92** (2015) 032725 (16 pages)

doi: [10.1103/PhysRevE.92.032725](https://doi.org/10.1103/PhysRevE.92.032725)

Related work at [arXiv:1504.02638](https://arxiv.org/abs/1504.02638)

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Monomer polymers and dimer polymers [Phys. Rev. E **92**, 032725 (2015)]

K. Lambropoulos, M. Chatzieftheriou, A. Morphis, K. Kaklamanis, M. Theodorakou, and C. **Simsides***

Physical Review E **93**, 069902(E) (2016)

doi: [10.1103/PhysRevE.93.069902](https://doi.org/10.1103/PhysRevE.93.069902)

Heterocitations 5

a36) THz and above THz electron or hole oscillations in DNA dimers and trimers

K. Lambropoulos, K. Kaklamanis, G. Georgiadis, and C. **Simsides***

Annalen der Physik (Berlin) **526** (2014) 249-258

doi: [10.1002/andp.201400067](https://doi.org/10.1002/andp.201400067)

Heterocitations 3

a35) A systematic study of electron or hole transfer along DNA dimers, trimers and polymers

C. **Simsides***

Chemical Physics **440** (2014) 31-41

doi: [10.1016/j.chemphys.2014.05.024](https://doi.org/10.1016/j.chemphys.2014.05.024)

Related work at [arXiv:1402.0654](https://arxiv.org/abs/1402.0654) [arXiv:1312.6842](https://arxiv.org/abs/1312.6842)

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a34) Phase diagram and critical behavior of the random ferromagnet $Ga_{1-x}Mn_xN$

S. Stefanowicz, G. Kunert, C. **Simsides**, J. A. Majewski, W. Stefanowicz, C. Kruse, S. Figge, Tian Li, R. Jakiela, K. N. Trohidou, A. Bonanni, D. Hommel, M. Sawicki, and T. Dietl

Physical Review B **88** (2013) 081201(R) (4 pages)

doi: [10.1103/PhysRevB.88.081201](https://doi.org/10.1103/PhysRevB.88.081201)

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Heterocitations 30 (+1), *From collaborators* 23 (+2)

a33) Density of states and extent of wave function: two crucial factors for small polaron hopping conductivity in 1D

M. Dimakogianni, C. **Simsides***, G. P. Triberis

Philosophical Magazine **93** (2013) 2729-2748

doi: [10.1080/14786435.2013.785639](https://doi.org/10.1080/14786435.2013.785639)

Related work at [arXiv:1209.1582v1](https://arxiv.org/abs/1209.1582v1)

From collaborators 1

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a32) Origin of low-temperature magnetic ordering in $Ga_{1-x}Mn_xN$

M. Sawicki, T. Devillers, S. Gałęski, C. **Simsides**, S. Dobkowska, B. Faina, A. Grois,

A. Navarro-Quezada, K. N. Trohidou, J. A. Majewski, T. Dietl, A. Bonanni

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a31) Near-Field Optical Properties of Quantum Dots, Applications and Perspectives

A. Zora, G. P. Triberis, C. **Simserides**
 Recent Patents on Nanotechnology **5** (2011) 188-224
 Bentham Science Publishers
 Invited Review Article
 doi: [10.2174/1872210511105030188](https://doi.org/10.2174/1872210511105030188)
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a30) Intrinsic optical bistability in a two-subband system in a semiconductor quantum well:

Analytical results
 S. G. Kosionis, A. F. Terzis, C. **Simserides**, E. Paspalakis
 Journal of Applied Physics **109** (2011) 063109 (5 pages)
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in a symmetric semiconductor quantum well
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a28) Electronic parameters for charge transfer along DNA

L. G. D. Hawke, G. Kalosakas, C. **Simserides**
 European Physical Journal E **32**, 291-305 (2010)
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a26) Multi-spin-subband structure of dilute magnetic semiconductor quantum wells:

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 C. **Simserides***, K. Koumpouras
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A. Lipińska, C. **Simserides**, K. N. Trohidou, M. Goryca, P. Kossacki, A. Majhofer, and T. Dietl
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- a24) Empirical LCAO parameters for π molecular orbitals in planar organic molecules
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C. Simserides*, A. Zora, G. Triberis

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a12) Properties of conduction-band dilute-magnetic-semiconductor quantum wells in an in-plane magnetic field: A density of states profile that is not step-like

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C. D. Simserides*, U. Hohenester, G. Goldoni and E. Molinari

Physica Status Solidi B **224** (2001) 745-749

doi: [10.1002/\(SICI\)1521-3951\(200104\)224:3<745::AID-PSSB745>3.0.CO;2-9](https://doi.org/10.1002/(SICI)1521-3951(200104)224:3<745::AID-PSSB745>3.0.CO;2-9)

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Physical Review B **62** (2000) 13657-13666

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a9) Local absorption spectra of single and coupled semiconductor quantum dots

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Materials Science and Engineering B **80** (2001) 266-269

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a8) Optical Spectra of Single Quantum Dots: Influence of Impurities and Few-Particle Effects

A. Hartmann, Y. Ducommun and E. Kapon, U. Hohenester, **C. Simserides** and E. Molinari

Physica Status Solidi A **178** (2000) 283-290

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- a7) The density of states and the electron concentration of a double-heterojunction system subjected to an in-plane magnetic field
C. D. Simserides*
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- a6) Electron scattering by optical phonons in $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{As}$ quantum wells
 X. Zianni, **C. D. Simserides** and G. P. Triberis
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C. D. Simserides and G. P. Triberis
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- a4) A study on the temperature dependence of the quasi-two-dimensional electron concentration and mobility in $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ selectively doped heterostructures
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- a3) On the temperature dependence of the electronic states and the mobility in $\text{AlGaAs}/\text{GaAs}$ heterostructures
C. D. Simserides and G. P. Triberis
 Superlattices and Microstructures **14** (1993) 277-282
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C. D. Simserides and G. P. Triberis
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- a1) A systematic study of electronic states in $n\text{-Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}/n\text{-Al}_x\text{Ga}_{1-x}\text{As}$ selectively-doped double-heterojunction structures
C. D. Simserides and G. P. Triberis,
 Journal of Physics: Condensed Matter **5** (1993) 6437-6446
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 Heterocitations [20](#), [From collaborators 4](#)

B. 3 books and 1 invited chapter (monograph) in a book

b4) **Book: Καταστάσεις της Ύλης, Κωνσταντίνος Σιμσερίδης, (States of Matter, Constantinos Simserides)**

ISBN 978-960-603-289-9, Αθήνα 2015 (Athens 2015), 271 pages
 Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών (Hellenic Academic Libraries Link),
 Εθνικό Μετσόβιο Πολυτεχνείο, Ηρώων Πολυτεχνείου 9, 15780 Ζωγράφου www.kallipos.gr
 Creative Commons Αναφορά δημιουργού - Μη εμπορική χρήση - Όχι παράγωγα έργα (CC BY-NC-ND) 3.0. <http://repository.kallipos.gr/handle/11419/2117> Eudoxus ID: 320167
 One of suggested textbooks of Course States and Properties of Matter, Physics Department, National and Kapodistrian University of Athens.

b3) **Book: Κβαντική Οπτική και Lasers, Κωνσταντίνος Σιμσερίδης, (Quantum Optics and Lasers, Constantinos Simserides)**

ISBN: 978-960-603-073-4 Αθήνα 2015 (Athens 2015), 324 pages
 Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών (Hellenic Academic Libraries Link),
 Εθνικό Μετσόβιο Πολυτεχνείο, Ηρώων Πολυτεχνείου 9, 15780 Ζωγράφου www.kallipos.gr
 Creative Commons Αναφορά δημιουργού - Μη εμπορική χρήση - Όχι παράγωγα έργα CC BY-NC-ND) 3.0. <http://repository.kallipos.gr/handle/11419/2108> Eudoxus ID: 320166
 One of suggested textbooks of Courses: **Quantum Optics and Lasers**, Physics Department, National and Kapodistrian University of Athens and **Special Topics on Physics**, Department of Mechanical Engineering, Technological Education Institute of Piraeus.

Heterocitations 1

b2) **Book: Low-Dimensional Carriers Under In-Plane Magnetic Field: Novel Phenomena, C. Simserides, A. Zora, G.P. Triberis**

Nova Science Publishers, New York (www.novapublishers.com)
 Series: Condensed Matter Research and Technology,
 Pub. Date: 2010, Pages: 7 x 10. COB, 165 pp. 8 chapters
 Binding: Hardcover ISBN: 978-1-61668-141-8
 Binding: ebook ISBN: 978-1-61470-196-5

b1) Invited chapter in the book:

Quantum Wells: Theory, Fabrication and Applications,

Nova Science Publishers, New York (www.novapublishers.com).
 Editors: Alfred Ruyter and Harper O'Mahoney, Pub. Date: 2009, Pages: pp.540
 Binding: Hardcover, ISBN: 978-1-60692-557-7
 Binding: ebook, ISBN: 978-1-61470-723-3

Chapter title: Quantum wells under in-plane magnetic field: Density of states and novel phenomena in thermodynamic properties, magnetization and spin-polarization.

C. Simserides. Pages 481-516.

[Heterocitations to the Book as a whole: 2](#)

C. 28 publications in international conference proceedings, some of them in international journals with referees, 15 with referees #

c28) Proceedings of ANBRE21 (Arch Eng, Nano, Bio, Robotics & Energy). The 2021 International Conference on Advances in Biomaterials and Biomechanics in Bioengineering (ICBME21), Seoul National University, Korea, August 23-26, 2021.

C. Simserides*, A. Morphis, K. Lambropoulos.

Hole Transfer in Open Cumuleninc and Polyynic Carbyne Chains.

c27#) Frequency Content of Carrier Oscillations along B-DNA Aperiodic and Periodic Polymers

M. Mantela, K. Lambropoulos, C. Vantaraki, P. Bilia, A. Morphis, and **C. Simserides***
 PIERS (Photonics and Electromagnetics Research Symposium, aka Progress In Electromagnetics Research Symposium), 17-20 June 2019, Rome, Italy.
 pp. 831-838, doi: [10.1109/PIERS-Spring46901.2019.9017899](https://doi.org/10.1109/PIERS-Spring46901.2019.9017899)

Καταστάσεις της Ύλης



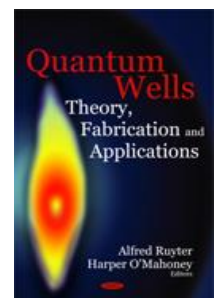
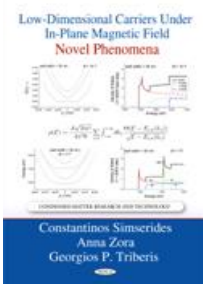
Κωνσταντίνος Σιμσερίδης
 ΑΘΗΝΑ 2015



Κβαντική Οπτική και Lasers



Κωνσταντίνος Σιμσερίδης
 ΑΘΗΝΑ 2015



URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9017899&isnumber=9017213>

Honorable Mention Student Paper (Antennas & Microwave Technologies) for the presenter **M. Mantela**

c26#) Frequency Content of Carrier Oscillations along B-DNA Polymers

K. Lambropoulos, M. Mantela, **C. Simserides***

PIERS (Progress in Electromagnetics Research Symposium) Proceedings,
19- 22 November 2017, Singapore.

Volume 2018-November, 2018, Pages 186-193.

doi: [10.1109/PIERS-FALL.2017.8293134](https://doi.org/10.1109/PIERS-FALL.2017.8293134)

c25#) THz oscillations in DNA monomers, dimers and trimers

K. Lambropoulos, K. Kaklamanis, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou,
M. Tassi, A. Morphis and **C. Simserides***

PIERS (Progress in Electromagnetics Research Symposium) Proceedings,
6-9 July 2015, Prague, pp 879-883

Best Student Paper Award (Optics & Photonics) for the presenter **K. Lambropoulos**

c24#) Theory of ferromagnetism driven by superexchange in dilute magnetic semiconductors

C. Simserides*, J.A. Majewski, K.N. Trohidou, T. Dietl

European Physical Journal Web of Conferences **75**, 01003 (2014)

doi: [10.1051/epjconf/20147501003](https://doi.org/10.1051/epjconf/20147501003)

On the occasion of JEMS 2013, Rhodes, Greece

Heterocitations 9 (+1), [From collaborators 2](#)

c23#) Temperature dependence of the emission spectra of individual self-assembled quantum dots

A. Zora, **C. Simserides** and G. P. Triberis

Journal of Physics: Conference Series **245** (2010) 012037

doi: [10.1088/1742-6596/245/1/012037](https://doi.org/10.1088/1742-6596/245/1/012037)

On the occasion of Quantum Dot 2010

Heterocitations 1

c22#) Reducing influence of antiferromagnetic interactions on ferromagnetic properties of p-(Cd,Mn)Te quantum wells

C. Simserides*, A. Lipińska, K.N. Trohidou, T. Dietl

Physica E: Low-dimensional Systems and Nanostructures **42** (2010) 2694-2697

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On the occasion of MSS-14

Related work at [arXiv:1308.4525v1](https://arxiv.org/abs/1308.4525v1)

c21) Effects of Detuning on Control of Intersubband Quantum Well Transitions with Chirped Electromagnetic Pulses

K. Blekos, **C. Simserides**, A. F. Terzis, E. Paspalakis

AIP Conference Proceedings **1288**, 137-141 (2010)

doi: [10.1063/1.3521346](https://doi.org/10.1063/1.3521346)

Heterocitations 1, [From collaborators 1](#)

c20#) The effect of the size of self-assembled individual quantum dots on their PL spectra

A. Zora, **C. Simserides** and G. P. Triberis

Physica Status Solidi C **5** (2008) 3806-3808

doi: [10.1002/pssc.200780185](https://doi.org/10.1002/pssc.200780185)

On the occasion of the 3rd MNN 2007

Heterocitations 7

c19#) Magneto-optics of quantum dots in the near field

C. Simserides*, A. Zora, G. Triberis

International Journal of Modern Physics B **21** (2007) 1649-1653

doi: [10.1142/S0217979207043361](https://doi.org/10.1142/S0217979207043361)

Proceedings of the 17th International Conference on High Magnetic Fields
in Semiconductor Physics
Heterocitations 2

c18) Controlled Intersubband Population Dynamics in a Semiconductor Quantum Well

E. Paspalakis, **C. Simserides**, A. F. Terzis
AIP Conference Proceedings **963** (2007) 533
doi: [10.1063/1.2827038](https://doi.org/10.1063/1.2827038)
ICCMSE 2007 Proceedings (International Conference in Computational Methods in Science and Engineering 2007)
Heterocitations 10

c17) Near-field magneto-optics of quantum dots

A. Zora, **C. Simserides***, G. Triberis
AIP Conference Proceedings **893** (2007) 893-894
doi: [10.1063/1.2730179](https://doi.org/10.1063/1.2730179)
28th International Conference on the Physics of Semiconductors,
Vienna, Austria, July 24-28 2006
Heterocitations 1

c16) The effect of a categorical discrimination task on the auditory M100 peak latency

R. König, C. Sielużycki, **C. Simserides**, H. Scheich,
International Congress Series **1300** (2007) 45-48
doi: [10.1016/j.ics.2007.01.062](https://doi.org/10.1016/j.ics.2007.01.062)
Proceedings of **BIOMAG 2006** (15th International Conference on Biomagnetism)
Heterocitations 1

c15#) High temperature electrical conductivity due to small polaron hopping motion in DNA molecules

G. P. Triberis, V. C. Karavolas and **C. D. Simserides**
Journal of Physics: Conference Series **10** (2005) 210-213
doi: [10.1088/1742-6596/10/1/052](https://doi.org/10.1088/1742-6596/10/1/052)
Proceedings of the 2nd Conf. on Microelectronics, Microsystems and Nanotechnology 2004
Heterocitations 2

c14#) Spin-polarization and magnetization of conduction-band dilute-magnetic-semiconductor quantum wells with non-step-like density of states

C. Simserides*
Journal of Physics: Conference Series **10** (2005) 143-146
doi: [10.1088/1742-6596/10/1/035](https://doi.org/10.1088/1742-6596/10/1/035)
Proceedings of the 2nd Conf. on Microelectronics, Microsystems and Nanotechnology 2004

c13) Temperature dependent magnetization and magnetic phases of conduction-band dilute-magnetic-semiconductor quantum wells with non-step-like density of states

C. Simserides*
AIP Conference Proceedings **772** (2005) 341-342
doi: [10.1063/1.1994128](https://doi.org/10.1063/1.1994128)
ICPS27 Proceedings (27th International Conference on the Physics of Semiconductors) published by AIP

c12) Do stimuli or tasks determine lateralized auditory cortex responses? An MEG study

C. Sielużycki, R. König, **C. Simserides**, H. Scheich
International Journal of Bioelectromagnetism, IJBEM **7** (2005) 185-188
[Proceedings of Joint Meeting: 5th International Conference on Bioelectromagnetism and 5th International Symposium on Noninvasive Functional Source Imaging within the Human Brain and Heart (BEM & NFSI),
University of Minnesota, Twin Cities campus in Minneapolis, Minnesota, USA, 12-15/5/2005].
<http://www.ijbem.org/volume7/number2/185-188.pdf>

c11#) Magnetic field effects on the near field spectra of quantum dots

A. Zora, **C. Simserides***, G. Triberis
 Physica Status Solidi A **202** (2005) 619–624
 doi: [10.1002/pssa.200460440](https://doi.org/10.1002/pssa.200460440)
 EXMATEC04 Proceedings (7th Expert Evaluation & Control of Compound Semiconductor
 Materials & Technologies)
[Heterocitations 1](#)

c10#) Near field spectroscopy of quantum dots under magnetic field

A. Zora, **C. Simserides*** and G. Triberis
 International Journal of Modern Physics B **18** (2004) 3717-3721
 doi: [10.1142/S0217979204027347](https://doi.org/10.1142/S0217979204027347)
 SEMIMAG16 Proceedings (16th International Conference on High Magnetic Fields
 in Semiconductor Physics)
[Heterocitations 1](#)

c9#) Magnetization and magnetic phases of conduction-band dilute-magnetic-semiconductor quantum wells with non-step-like density of states

C. Simserides*
 International Journal of Modern Physics B **18** (2004) 3745-3748
 doi: [10.1142/S0217979204027384](https://doi.org/10.1142/S0217979204027384)
 SEMIMAG16 Proceedings (16th International Conference on High Magnetic Fields
 in Semiconductor Physics)

c8) An MEG study of directional categorization of frequency-modulated tones

C. Simserides, R. König, and H. Scheich
 Proceedings of the 14th International Conference on Biomagnetism (BIOMAG 2004),
 E. Halgren, S. Ahlfors, M. Hämaläinen, and D. Cohen (eds.), pp. 543-544.
 Boston: Biomag 2004 Ltd.

c7) Task-dependent activation of the auditory cortex by frequency-modulated tones:
 an MEG study

C. Simserides*, R. König, and H. Scheich
 Biomedizinische Technik **48** (2004) 205-207 (with referee)
 NFSI-2003 Proceedings (4th Internat. Symposium on Noninvasive Functional Source Imaging)

c6#) Not-step-like Density of States and carrier distribution of conduction-band, narrow-to-wide Dilute Magnetic Semiconductor quantum wells under in-plane magnetic field

C. Simserides*
 Physica E: Low-Dimensional Systems & Nanostructures **21** (2004) 956-960
 doi: [10.1016/j.physe.2003.11.170](https://doi.org/10.1016/j.physe.2003.11.170)
 MSS11 Proceedings (11th International Conference on Modulated Semiconductor Structures)

c5#) The Density of States and the pertinent Electronic Properties of the quasi 2DEG in Simple and DMS structures subjected to an in-plane magnetic field

C. Simserides*
 Journal of Computational Electronics **2** (2003) 459-463
 doi: [10.1023/B:JCEL.0000011471.69323.17](https://doi.org/10.1023/B:JCEL.0000011471.69323.17)
[Heterocitations 1](#)
 Proceedings of IWCE-9 (9th International Workshop on Computational Electronics)

c4) Auditory Cortex Response to Frequency-Modulated Tones Investigated with MEG

R. König, **C. Simserides**, and H. Scheich
 Proceedings of the **International Conference on Auditory Cortex**,
 Shaker Verlag, Aachen, Germany (2003) p.30
 13-17 September 2003, Magdeburg, Germany

c3) Conduction band narrow to wide Diluted Magnetic Semiconductor layers
 under in-plane magnetic field: not step-like Density of States and consequences

C. Simserides*

Proceedings of **MSS11** (2003) p.299 (booklet version)
11th International Conference on Modulated Semiconductor Structures,
Nara, Japan, 14-18 July 2003

- c2) Local optical absorption by confined excitons in single and coupled quantum dots
C. Simserides*, U. Hohenester, G. Goldoni and E. Molinari
Proceedings of the **ICPS-25** edited by N. Miura and T. Ando, Springer Berlin (2001) p.1117
25th International Conference on the Physics of Semiconductors,
17-22 September 2000 Osaka, Japan.
Heterocitations 2
- c1) Electronic properties of n-Al_xGa_{1-x}As/GaAs/n-Al_xGa_{1-x}As double heterojunctions
C. D. Simserides and G. P. Triberis
Proceedings of the **4th-ICFSI**, World Scientific Publishing, London, England (1993)
4th International Conference on the Formation of Semiconductor Interfaces,
14-18/6/1993, Julich, Germany.

D. 8 topical conference proceedings or international schools proceedings

In the following list extended or simple abstracts are not included.

- d8) Charge oscillations in the mid-to-far infrared and charge transfer in DNA. K. Lambropoulos, K. Kaklamanis, G. Georgiadis, and **C. Simserides***. 9th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB14), Agricultural University of Athens in 10-12 October 2014
- d7) Tight-binding parameters for charge transport in DNA. L.G.D. Hawke, G. Kalosakas, **C. Simserides***. 5th Conference of the Hellenic Society for Computational Biology and Bioinformatics, 17-19 October 2010, Alexandroupolis, Greece
- d6) Few-particle effects in the optical spectra of single semiconductor quantum dots. A. Hartmann, Y. Ducommun and E. Kapon, U. Hohenester, **C. Simserides** and E. Molinari. 11th International Winterschool on New Developments in Solid State Physics: Low-Dimensional Systems: Fundamentals and Applications, 21-25 February 2000, Mauterndorf, Salzburg, Austria
- d5) Changing the density of states and the magnetoresistance of double heterojunctions by an in-plane magnetic field. V. Piazza, **C. D. Simserides***, W. Wegscheider and F. Beltram. Advanced Materials for Industrial Applications. International summer school organized by the Physics Dept. of the Aristotle University of Thessaloniki, Kavala (20-27/6/1999)
- d4) Study of the electron scattering by optical phonons in semiconductor heterostructures. X. Zianni, **C.D. Simserides** and G.P. Triberis. 11^o Panhellenic Conference of Solid State Physics, September 1995, Xanthi. Proceedings of the XI ΠΣΦΣΚ.
- d3) Systematic study of the electron mobility in selectively doped $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ double heterojunctions. **C.D. Simserides**, X. Zianni and G.P. Triberis. 11th Panhellenic Conference of Solid State Physics, September 1995, Xanthi. Proceedings of the XI ΠΣΦΣΚ.
- d2) Temperature dependence of the electronic states and the mobility in $\text{AlGaAs}/\text{GaAs}$ heterostructures. **C.D. Simserides** and G.P. Triberis. 10th Panhellenic Conference of Solid State Physics, September 1994, Delfi. Proceedings of X ΠΣΦΣΚ.
- d1) A systematic study of electronic states in $n\text{-Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}/n\text{-Al}_x\text{Ga}_{1-x}\text{As}$ selectively-doped double-heterojunction structures. **C.D. Simserides** and G.P. Triberis. 9th Panhellenic Conference of Solid State Physics (IX ΠΣΦΣΚ), September 1993, Rio, Patra. Proceedings of the IX ΠΣΦΣΚ.

E. 2 popular science publications

- e1) **C. Simserides***, K. Lambropoulos. The future of nanotechnology and nanoscience and their applications. Physics News magazine, of Hellenic Physicists Association, Issue **22**, April 2018, pp. 28-37.
- e2) **C. Simserides***. To become wise, start from names: Commutation and Anticommutation, InScience March 12, 2022 <https://www.inscience.gr/2022/03/12/>
Article link <https://www.inscience.gr/2022/03/12/%ce%b1%cf%81%cf%87%ce%ae-%cf%83%ce%bf%cf%86%ce%af%ce%b1%cf%82-%ce%bf%ce%bd%ce%bf%ce%bc%ce%ac%cf%84%cf%89%ce%bd%ce%b5%cf%80%ce%af%cf%83%ce%ba%ce%b5%cf%88%ce%b9%cf%82-%ce%bc%ce%b5%cf%84%ce%ac%ce%b8/>

F. 1 supervision of book translation

f1) Φυσικοχημεία [Kurt W. Kolasinski](#),

Επιμέλεια: Παναγιώτης Γιαννακουδάκης, **Κωνσταντίνος Σιμσερίδης**

Μετάφραση: Χριστίνα Βανταράκη, Φανή Πινακίδου,

Έτος έκδοσης εντύπου 2020. ISBN 9789605863463. Εκδόσεις Κριτική.

Original Textbook:

Physical Chemistry - How Chemistry Works, 2017, Wiley, 726 pages.



6. Evaluator of Research Projects (evaluations requested, evaluations accomplished)

- Participation in an Advisory Committee of the **General Secretariat for Research and Technology** (Greece) for the evaluation of a research program, 2014. (1,1)
- Evaluator **Hellenic State Scholarships Foundation- IKY**, within the action "reinforcement of Postdoctoral researchers - B' cycle", 2019, ΕΣΠΑ 2014-2020. (5,5)
- Expert for evaluation of Bilateral and Multilateral Cooperation, International S&T Cooperation Directorate, **General Secretariat for Research and Technology**, Ministry of Education & Religious Affairs, 2019. (1,1)
- Evaluator (Expert of Physical Object), 1st Call of Research Grants of the **Hellenic Foundation for Research and Innovation (HFRI)** and the **General Secretariat for Research and Technology (GSRT)**, for Postdoctoral Research, 2019-2022. (3,3)
- Evaluator for The **Cyprus Research Promotion Foundation (RPF)**, 2019. <https://iris.research.org.cy>. (1,1)
- Evaluator for the **Hellenic State Scholarships Foundation- IKY**, 2018, for doctoral scholarships. (2,2)
- Evaluator for the **Hellenic State Business Development Program - Development and Lifelong Learning** (Επιχειρησιακού Προγράμματος Ανάπτυξη Ανθρώπινου Δυναμικού - Εκπαίδευση και Διά Βίου Μάθηση, ΕΠ ΑΝΑΔ-ΕΔΒΜ), 2019". Action "Supporting researchers with an emphasis on young researchers" - cycle B ("Υποστήριξη ερευνητών με έμφαση στους νέους ερευνητές"- κύκλος Β'), ΕΣΠΑ 2014-2020. (3,3)
- Evaluator for **Fundación para el Conocimiento madri+d**, CONEX-Plus Programme, **Universidad Carlos 3 de Madrid** (2019- 2020). (5,5)
- Evaluator for **Czech Science Foundation**: 2020 (1,1) and 2022 (1,1).
- Evaluator for Senate Committee of Basic Research of **National Technical University of Athens**, 2020-21. (2,2)
- Evaluator for **IDEAL Fellowships Programme supported by Marie Skłodowska-Curie Actions (MSCA) COFUND**. [Fundación IMDEA Nanociencia](https://www.fundacionimdea.com) Madrid, Spain, 2021-2022 (7,7).

7. Editor - Referee in Scientific Journals and Conferences

- 1 **2019 - Member of the Peer Review Advisory Panel of Journal of Physics: Condensed Matter, Institute of Physics (IOP), (adjudications requested, adjudications accomplished) = (37,37)**
<https://iopscience.iop.org/journal/0953-8984/page/Peer-Review-Advisory-Panel>
- 2 In the **top 1% of reviewers in Physics** who performed the most verified pre-publication peer reviews on **Publons** for the **September 2019 global Peer Review Award**.
- 3 In the **top 1% of reviewers in Cross-Field** who performed the most verified pre-publication peer reviews on **Publons** for the **September 2019 global Peer Review Award**.
- 4 In the **top 1% of reviewers in Physics** who performed the most verified pre-publication peer reviews on **Publons** for the **September 2018 global Peer Review Award**.
- 5 **Guest Editor** of the journal **Materials** for the Special Issue:
Electronic Structure, Carrier Transfer and Transport in Polymers and Biopolymers.
Deadline: 31 March 2023.
- 6 During its starting period, a few months in 2021-2022, I was Member of the Editorial Board of the internet magazine for science and technology InScience. <https://inscience.gr/>
- 7 **From June 2022, Associate Editor in Frontiers in Physics – speciality section Condensed Matter Physics**.

I have refereed for the following journals (reviews requested, reviews accomplished):

- 1 From 2005, **Physical Review B** (34,23)
- 2 From 2006, **European Physical Journal B** (12,12)
- 3 From 2007, **Synthetic Metals** (1,1)

- 4 From 2007, **Physical Review Letters** (16,15)
- 5 From 2007, **Journal of Physics and Chemistry of Solids** (1,1)
- 6 From 2007, **Journal of Applied Physics** (13,13)
- 7 From 2007, **Journal of Physics: Condensed Matter** (36,30)
- 8 From 2007, **Physical Review E** (20,14)
- 9 From 2007, **Nanotechnology** (12, 9)
- 10 From 2008, **Physica E** (5,5)
- 11 From 2008, **Semiconductors Science and Technology** (10,9)
- 12 From 2008, **Journal of Physics D: Applied Physics** (8,6)
- 13 From 2009, **Superlattices and Microstructures** (7,7)
- 14 From 2009, **Journal of Physics A: Mathematical and Theoretical** (1,1)
- 15 From 2009, **Chemical Physics** (4,4)
- 16 From 2009, **Physica Scripta** (4,2)
- 17 From 2010, **Progress in Electromagnetic Research** (22,6)
- 18 From 2010, **Applied Surface Science** (1,1)
- 19 From 2010, **Applied Physics Letters** (26,22)
- 20 From 2011, **Journal of Luminescence** (3,3)
- 21 From 2011, **Journal of Materials Science** (2,2)
- 22 From 2011, **Optics Communications** (5,5)
- 23 From 2011, **Physica B** (1,1)
- 24 From 2011, **Journal of Quantum Electronics** (2,1)
- 25 From 2012, **Modern Physics Letters B** (32,16)
- 26 From 2014, **International Journal of Modern Physics B** (17,10)
- 27 From 2014, **Nature Protocols** (2,2)
- 28 From 2014, **Optics and Laser Technology** (3,3)
- 29 From 2015, **Materials Science and Engineering C** (5,5) Outstanding reviewer, Achieved: October 2016
- 30 From 2015, **Solid State Communications** (2,2)
- 31 From 2015, **Physical Biology** (3,3)
- 32 From 2016, **Frontiers in Physics** (Condensed Matter Physics) (14,5)
- 33 From 2017, **Materials** (27,19)
- 34 From 2017, **Recent Patents on Nanotechnology** (2,1)
- 35 From 2017, **RSC Advances** (3,2)
- 36 From 2017, **Nanomaterials** (44,28)
- 37 From 2017, **The Journal of Physical Chemistry** (6,6)
- 38 From 2019, **Physical Review Applied** (3,2)
- 39 From 2019, **Applied Bio Materials** (2,2)
- 40 From 2019, **Biopolymers (Wiley)** (2,2)
- 41 From 2019, **Crystals** (4,4)
- 42 From 2020, **Physical Review Materials** (1,1)
- 43 From 2020, **Symmetry** (3,1)
- 44 From 2020, **Journal of Chemical Information and Modeling** (2,2)
- 45 From 2020, **ChemistrySelect** (2,2)
- 46 From 2020, **Molecules** (3,1)
- 47 From 2020, **Brazilian Journal of Physics** (3,3)
- 48 From 2020, **Physical Review A** (2,2)
- 49 From 2020, **European Biophysics Journal** (2,2)
- 50 From 2021, **Applied Nano Materials** (1,1)
- 51 From 2021, **Review of Scientific Instruments** (2,2)
- 52 From 2021, **Polymers** (1,0)
- 53 From 2021, **Analytical Chemistry** (2,2)
- 54 From 2021, **Energies** (1,0)
- 55 From 2021, **The Journal of Chemical Physics** (1,0)
- 56 From 2021, **Coatings** (2,0)
- 57 From 2021, **Philosophical Magazine** (2,2)
- 58 From 2022, **Condensed Matter** (2,2)
- 59 From 2022, **Transactions on Cloud Computing** (2,0)
- 60 From 2022, **International Journal of Communication Systems** (3,0)
- 61 From 2022, **Chemosensors** (1,0)
- 62 From 2022, **Lubricants** (1,0)

63 From 2022, **Nonlinear Engineering. Modeling and Application.** (1,0)

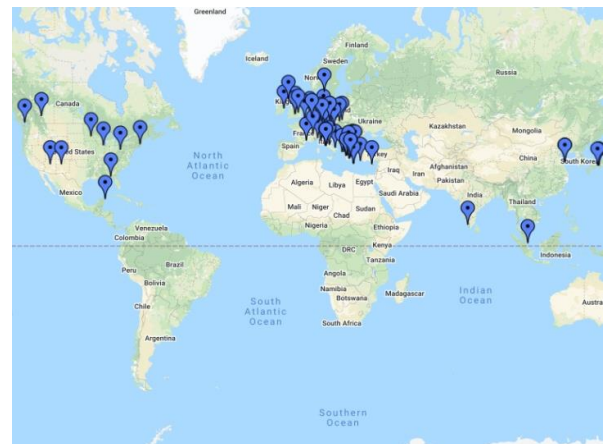
Plus, relative to Proceedings of International Conferences and other events, I have refereed for:

- 1 EXMATEC 2000, 21-24 May 2000, Crete, Greece, proceedings in **Materials Science and Engineering B** (1,1)
- 2 IWCE-9, Monte Porzio Catone, Rome, Italy, 25-28 May 2003, proceedings in **Journal of Computational Electronics** (1,1)
- 3 EXMATEC04, Montpellier, France, June 1-4, 2004, proceedings in **Physica Status Solidi** (1,1)
- 4 SEMIMAG16, Tallahassee, Florida, USA, August 2-6, 2004, proceedings in **International Journal of Modern Physics B** (1,1)
- 5 EP2DS-17/MSS-13, Genova, Italy, 15-20 July 2007, proceedings in **Physica E** (2,2)
- 6 NN09, Thessaloniki, Greece, 13-15 July 2009, proceedings in **Materials Science and Engineering B** (1,1)
- 7 The Second International Conference on Physics, Mathematics and Statistics, May 22-24, 2019 in Hangzhou, China, <http://www.pmsconf.org/> (2,2)
- 8 Proposed by Nanyang Technological University, Singapore, to participate in 2019 QS University Rankings Academic Survey (1,1)
- 9 The Third International Workshop on Materials Science and Mechanical Engineering (IWMSME2020), Hangzhou, China during April 18-20, 2020. <http://www.iwmsme.org/> (1,1)

Sum (505,376)

8. Presence in Conferences, Seminars, Workshops, etc (111 events, 77 International, 34 Hellenic)

<https://www.google.com/maps/d/viewer?mid=18V9OawSPevjF2VSVGjTQjt1Gjgg&msa=0&spn=134.79283%2C316.054688&ll=22.568611800595306%2C51.164289250000024&z=1>



| | International | Hellenic | Total |
|---|----------------------|-----------------|--------------|
| Member of Organizing Committee | 1 | 4 | 5 |
| Session Organizer | 2 | 0 | 2 |
| Session Chair | 2 | 1 | 3 |
| Session Referee | 1 | 0 | 1 |
| Invited Talks | 12 | 9 | 21 |
| Invited Talks presented by my PhD students | 1 | 0 | 1 |
| Keynote Lecture | 1 | 0 | 1 |
| Talks (not invited) presented by me | 17 | 7 | 24 |
| Talks (not invited) presented by collaborators | 16 * # | 8 | 24 |
| Posters presented by me | 27 ^ | 4 | 31 |
| Posters presented by collaborators | 23 & | 8 | 31 |
| Researchers Night - Open Doors Days | 0 | 7 | 7 |
| Observer | 3 | 0 | 3 |

* two (2) best talk awards, # one (1) honorable mention, & one (1) best poster award
^ in 3 posters > 1 presenters

The name of the presenter is underlined.

I = International, H = Hellenic,

P = Poster, T = Talk, Me = presented by me, Co = presented by collaborators, O = Observer,
 IT = Invited Talk, K = Keynote Lecture, SO = Session Organizer, CH = Session Chair, RE = Session Referee

| N | I/H | Event. Authors. Title. | Type | me/co |
|----|-----|---|------|--------|
| 1 | I1 | 4 th International Conference on the Formation of Semiconductor Interfaces, 14-18 June 1993, Julich, Germany. <u>C. D. Simserides</u> and G.P. Triberis. Electronic properties of n-Al _x Ga _{1-x} As/GaAs/n-Al _x Ga _{1-x} As double heterojunctions. | P | Me |
| 2 | H1 | 9 th Panhellenic Conference of Solid State Physics, September 1993, Patras. <u>C. D. Simserides</u> and G. P. Triberis. A systematic study of electronic states in n-Al _x Ga _{1-x} As/GaAs/n-Al _x Ga _{1-x} As selectively-doped double-heterojunction structures. | T | Me |
| 3 | I2 | ICSMM-7 (7 th International Conference on Superlattices, Microstructures and Microdevices), Banff, Alberta, Canada, August 22-26, 1994. <u>C. D. Simserides</u> and G. P. Triberis. On the temperature dependence of the electronic states and the mobility in AlGaAs/GaAs heterostructures. | P | Me |
| 4 | H2 | 10 th Panhellenic Conference of Solid State Physics, September 1994, Delfi. <u>C. D. Simserides</u> and G. P. Triberis. Temperature dependence of the electronic states and the mobility in AlGaAs/GaAs heterostructures. | T | Me |
| 5 | H3 | 11 th Panhellenic Conference of Solid State Physics, September 1995, Xanthi. | | |
| | | <u>C. D. Simserides</u> , X. Zianni and G. P. Triberis. Systematic study of the electron mobility in selectively doped Al _x Ga _{1-x} As/GaAs double heterojunctions. | T | Me |
| | | <u>X. Zianni</u> , <u>C. D. Simserides</u> and G. P. Triberis. Study of the electron scattering by optical phonons in semiconductor heterostructures. | T | Co |
| 6 | I3 | Computational Physics for Nanotechnology, Castelvechio Pascoli, Italy (19-24/9/1998). <u>Observer</u> . | O | Me |
| 7 | I4 | Internal Invited Seminar. <u>C. Simserides</u> . Changing the electronic states and the conductance of AlGaAs/GaAs/AlGaAs double hetero-junctions with a parallel magnetic field, 22/1/1999, Scuola Normale Superiore, Pisa, Italy. | IT | Me |
| 8 | H4 | Advanced Materials for Industrial Applications. Summer school organized by Physics Dept., Aristotle University of Thessaloniki, Kavala, 20-27/6/1999. <u>C. Simserides</u> . Changing the density of states and the magnetoresistance of double heterojunctions by an in-plane magnetic field. | P | Me |
| 9 | I5 | The 1 st Stig Lundqvist Research Conference on the Advancing Frontiers in Condensed Matter Physics: Quantum Phases in Electron Systems of Low Dimensions, 26-29/7/1999, ICTP, Trieste, Italy. <u>Observer</u> . | O | Me |
| 10 | I6 | Ultrafast Processes in Semiconductors, Oxford University, 24-27/9/1999. European Commission Euroconference, in association with the Network «Ultrafast». <u>Observer</u> . | O | Me |
| 11 | I7 | EXMATEC 2000 (5 th International Workshop on Expert Evaluation & Control of Compound Semiconductor Materials & Technologies), May 21-24, 2000, Crete, Greece. <u>C. D. Simserides</u> , U. Hohenester, G. Goldoni and E. Molinari. Local absorption spectra of single and coupled semiconductor quantum dots. | P | Me |
| 12 | I8 | Ultrafast Processes in Semiconductors, Modena, 16-19/7/2000. <u>C. Simserides</u> . Network "Ultrafast" meeting. | T | Me |
| 13 | I9 | QD2000 (International Conference on Semiconductor Quantum Dots), Munich, Germany, 31/7/-3/8/2000. <u>C. D. Simserides</u> , U. Hohenester, G. Goldoni & E. Molinari. Local optical absorption by confined excitons in single and coupled quantum dots. | P | Me |
| 14 | I10 | ICPS25 (25 th International Conference on the Physics of Semiconductors), 17-22 September 2000 Osaka, Japan. <u>C. Simserides</u> , U. Hohenester, G. Goldoni and E. Molinari. Local optical absorption by confined excitons in single and coupled quantum dots. | T | Me |
| 15 | I11 | MSS10 (10 th Internat. Conference on Modulated Semiconductor Structures), 23-27/7/2001, Linz, Austria. <u>A. Ruini</u> , M. J. Caldas, G. Bussi, <u>C. Simserides</u> , U. Hohenester, G. Goldoni, F. Rossi, and E. Molinari. Excitonic states in polymer crystals: ab-initio calculation of far and near-field optical spectra. | P | Co |
| 16 | I12 | EP2DS-14 (14 th International Conference on the Electronic Properties of Two-Dimensional Systems), 30/7-3/8/2001, Prague, Czech Republic. <u>C. Simserides</u> , <u>G. Goldoni</u> , U. Hohenester, <u>A. Ruini</u> , M. J. Caldas, F. Rossi, E. Molinari. Local optical spectroscopy of nanostructures. | P | Me, Co |
| 17 | I13 | EXCITING Network Meeting, 4-6/4/2002, Graz, Austria. G. Bussi, A. Ferretti, G. Goldoni, U. Hohenester, E. Molinari, <u>A. Ruini</u> , <u>C. Simserides</u> , M. J. Caldas. Excitonic states in conjugated polymers and oligomers. | T | Co |
| 18 | I14 | INFMeeting, 24-28/6/2002, Bari. <u>C. Simserides</u> , G. Goldoni, <u>A. Ruini</u> , G. Bussi, M. J. Caldas, and E. Molinari. Near-Field spectroscopy of organic macromolecules. | P | Co |
| 19 | I15 | Internal Invited Encyclopaedic Seminars at the Non-Invasive Brain Imaging Group, Leibniz Institute for Neurobiology, Magdeburg. <u>C. Simserides</u> | | |
| | | 1. Sound Properties: part 1 (an encyclopaedic narration) 16/10/2002. Decibel, Audible Sound, Sound Intensity - Standard Threshold of Hearing, Just Noticeable Difference, Actual | IT | Me |

| | | | | |
|----|-----|--|------|--------|
| | | Threshold of Hearing - Threshold of Pain, Amplification structure, Auditory Canal Resonance, Frequencies of maximum sensitivity of human hearing, Protective mechanism. | | |
| | | 2. Sound properties: part 2 (an encyclopaedic narration) 28/11/2002. Sound Pressure, Sound Pressure Levels (SPLs). The three basic characteristics of sound: (I) Pitch or the ear's response to the Frequency, (II) Sound Loudness versus Sound Intensity. Phons, Sones. (III) Quality or Timbre or Chroma i.e. harmonic content, vibrato/tremolo, attack-decay. | IT | Me |
| | | 3. Resonant Frequencies or Eigenfrequencies: in general, of the auditory canal, and of specific musical instruments. Fourier Series. 27/2/2003. Didactic examples of objects with a single resonant frequency e.g. simple pendulum and rod pendulum and with many resonant frequencies e.g. chords, tubes, rectangular and circular membranes. Auditory Canal resonant frequencies. Resonant Frequencies of specific musical instruments. Harmonics and Overtones. Fourier Series i.e. approximation of a periodic function as a sum of harmonics. Fourier Theorem, Fourier components and Fourier coefficients, terminology of harmonics. Dirichlet conditions, didactic examples of Fourier Series e.g. simple or of a periodic pulse. Other forms of the Fourier theorem. Allusion to Fourier Transform. | IT | Me |
| 20 | I16 | OP2003 (5th international topical conference on optical probes of conjugated polymers and organic & inorganic nanostructures), 9-14 February 2003, Venice, Italy. <u>G. Bussi</u> , <u>C. Simserides</u> , A. Ruini, G. Goldoni, U. Hohenester, E. Molinari and M. J. Caldas. Near-field spectroscopy of organic macromolecules. | P | Co |
| 21 | I17 | IWCE-9 (9th International Workshop on Computational Electronics, Monte Porzio Catone, Rome, Italy, 25-28/5/2003. <u>C. Simserides</u> . The Density of States and the pertinent Electronic Properties of the quasi 2DEG in Simple and DMS structures subjected to an in-plane magnetic field. | P | Me |
| 22 | I18 | MSS-11 (11th Internat. Conference on Modulated Semiconductor Structures, Nara, Japan, 14-18/7/2003. <u>C. Simserides</u> . The not-step-like Density of States and the pertinent properties of conduction-band narrow to wide diluted magnetic semiconductor quantum wells under in-plane magnetic field". | P | Me |
| 23 | I19 | NFSI-2003 (4th Internat. Symposium on Noninvasive Functional Source Imaging), Chieti, Italy, 10-13/9/2003. <u>C. Simserides</u> , R. König, and H. Scheich. Task-dependent activation of the auditory cortex by frequency-modulated tones: an MEG study. | T, P | Me |
| 24 | I20 | International Conference on Auditory Cortex, 13-17 September 2003, Magdeburg, Germany. <u>R. König</u> , <u>C. Simserides</u> , and H. Scheich. Auditory Cortex Response to Frequency-Modulated Tones Investigated with MEG. | P | Me, Co |
| 25 | I21 | EXMATEC04 (7th Expert Evaluation & Control of Compound Semiconductor Materials & Technologies), Montpellier, France, June 1-4, 2004. | | |
| | | Magnetization of conduction-band dilute-magnetic-semiconductor quantum wells with non-step-like density of states. <u>C. Simserides</u> . | P | Me |
| | | Magnetic field effects on the near field spectra of quantum dots. <u>A. Zora</u> , <u>C. Simserides</u> and <u>G. Triberis</u> . | P | Me, Co |
| 26 | I22 | Invited Talk (candidate for a position). <u>C. Simserides</u> . Magnetization of conduction-band dilute-magnetic-semiconductor quantum wells with non-step-like density of states. 7/6/2004, IEMN (Institut d'Electronique et de Microélectronique du Nord), Lille, France. | IT | Me |
| 27 | I23 | ICPS27 (27th Internat. Conference on the Physics of Semiconductors), 26-30/7/2004, Flagstaff, Arizona, USA. <u>C. Simserides</u> . Temperature dependent magnetization and magnetic phases of conduction -band dilute-magnetic-semiconductor quantum wells with non-step-like density of states. | P | Me |
| 28 | I24 | SEMIMAG16 (16th International Conference on High Magnetic Fields in Semiconductor Physics), Tallahassee, Florida, USA, 2-6/8/2004. | | |
| | | <u>C. Simserides</u> . Magnetization and magnetic phases of conduction-band dilute-magnetic-semiconductor quantum wells with non-step-like density of states. | P | Me |
| | | A. Zora, <u>C. Simserides</u> and G. Triberis. Near field spectra of quantum dots under magnetic field. | P | Me |
| 29 | I25 | BIOMAG 2004 (14 th International Conference on Biomagnetism), 8-12/8/2004, Boston Massachusetts, USA. <u>C. Simserides</u> , <u>R. König</u> , H. Scheich. Directional discrimination of frequency-modulated tones investigated by MEG. | P | Co |
| 30 | I26 | HETECH'04 (13 th European Workshop on Heterostructure Technology) 3-6/10/2004, Heraklion, Greece. A. Zora, <u>C. Simserides</u> , G. Triberis. Near field spectroscopy of quantum dots under magnetic field. | T | Me |
| 31 | I27 | Microelectronics Microsystems & Nanotechnology Conference, Demokritos, Athens, Greece, 14-17/11/2004. | | |
| | | <u>C. Simserides</u> . Spin-polarization and magnetization of conduction-band dilute-magnetic-semiconductor quantum wells with non-step-like density of states. | T | Me |
| | | <u>A. Zora</u> , <u>C. Simserides</u> and G. P. Triberis. Near field absorption spectra of single and coupled semiconductor quantum dots under magnetic field of variable orientation. | T | Co |

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| | | G. P. Triberis, V.C. Karavolas and C.D. Simserides . High temperature electrical conductivity due to small polaron hopping motion in DNA molecules. | P | Co |
| 32 | I28 | LDSO 2004 (5th International Conference on Low Dimensional Structures and Devices), Cancun - Mayan Rivera, Mexico, 12-17/12/2004. A. Zora , C. Simserides , G. Triberis . Near field absorption spectra of single and coupled semiconductor quantum dots under magnetic field of variable orientation. | P | Co |
| 33 | I29 | BEM & NFSI 2005 (Joint Meeting of 5th International Conference on Bioelectromagnetism and 5th International Symposium on Noninvasive Functional Source Imaging within the Human Brain and Heart), University of Minnesota, Twin Cities campus in Minneapolis, Minnesota, USA, 12-15/5/2005. C. Sielużycki , R. König, C. Simserides , H. Scheich. Do stimuli or tasks determine lateralized auditory cortex responses? An MEG study. | T | Co |
| 34 | I30 | MSS-12 (12th International Conference on Modulated Semiconductor Structures), Hyatt Regency, Albuquerque, New Mexico, 10-15/7/2005. G. P. Triberis, C. Simserides and V. C. Karavolas. A small polaron hopping model for the multiphonon-assisted transport along DNA molecules, in the presence of disorder. | T | Me |
| 35 | I31 | 2 nd Workshop on Functional Materials, FMA'2005, Athens, Greece, 26-29/9/2005. G. P. Triberis , C. Simserides and V. C. Karavolas. Charge transport along DNA molecules. | T | Co |
| 36 | I32 | QD2006 (4th International Conference on Quantum Dots), May 1 - 5, 2006, Chamonix-Mont Blanc, France. C. Simserides , A. Zora , and G. Triberis. Magnetoabsorption of quantum dots in the near field. | P | Me |
| 37 | I33 | ICPS 2006 (28 th International Conference on the Physics of Semiconductors), 24-28/7/2006, Vienna, Austria. A. Zora , C. Simserides , G. Triberis. Near-field magneto-optics of quantum dots. | P | Co |
| 38 | I34 | 17th International Conference on High Magnetic Fields in Semiconductor Physics (HMF), Würzburg, Germany, 30/7/-4/8/2006. C. Simserides , A. Zora , and G. Triberis. Magneto-optics of quantum dots in the near field. | P | Me |
| 39 | I35 | BIOMAG 2006 (15th International Conference on Biomagnetism) Vancouver, British Columbia, Canada, 20-26/8/2006. R. König , C. Sielużycki , C. Simserides , H. Scheich. Task-induced lateralization of the auditory M100 during categorical discrimination. Poster abstracts published in <i>Hearing Research</i> 229 (2007) 237-272. | P | Co |
| 40 | I36 | ICCMSE 2007 (International Conference in Computational Methods in Science and Engineering 2007), Hotel Marbella, Corfu, Greece, 25-30 September 2007. Conference Editors: G. Maroulis and T.E. Simos. Symposium 8, "Quantum Control and Light-Matter Interactions: Recent Computational and Theoretical Results". E. Paspalakis , C. Simserides and A. F. Terzis. Controlled Intersubband Population Dynamics in a Semiconductor Quantum Well". | T | Co |
| 41 | I37 | EP2DS-17 (17th International Conference on Electronic Properties of Two-Dimensional Systems) and MSS-13 (13th International Conference on Modulated Semiconductor structures), jointly held at Magazzini del Cotone in Genova, Italy, July 15 - 20, 2007. | | |
| | | (EP2DS-17) A. Zora , C. Simserides , G. P. Triberis. Room temperature photoluminescence of self-assembled single quantum dots. | P | Co |
| | | (EP2DS-17) E. Paspalakis , C. Simserides , S. Baskoutas , and A. F. Terzis. Electromagnetically-induced population transfer between two quantum well subbands. | P | Co |
| | | (EP2DS-17) C. Simserides , I. Galanakis. Spin-subband populations and spin polarization of quasi two-dimensional carriers in dilute-magnetic-semiconductor quantum wells under in-plane magnetic field. | P | Me |
| | | (MSS-13) L. Hawke , G. Kalosakas , C. Simserides . Tight-binding parameters for charge transfer along DNA. | P | Me |
| 42 | H5 | XXIII Panhellenic Conference of Solid State Physics & Materials Science, NCSR Demokritos, Athens, 23 - 26/9/2007. L. Hawke , G. Kalosakas , C. Simserides . Tight-binding parameters for modelling charge transfer along DNA. | P | Co |
| 43 | I38 | 3rd International Conference on Micro-Nanoelectronics, Nanotechnology & MEMs, NCSR Demokritos, Athens, 18-21/11/2007. | | |
| | | E. Paspalakis , C. Simserides , A. Fountoulakis and A. F. Terzis. Controlled Population Dynamics in Semiconductor Quantum Well and Quantum Dot Structures. | T | Co |
| | | A. Zora , C. Simserides and G. P. Triberis Best poster award! Photoluminescence of self-assembled single quantum dots in the linear regime. | P | Co |
| 44 | I39 | XXXVII International School on the Physics of Semiconducting Compounds "Jaszowiec 2008", Ustron-Jaszowiec, Poland, 7-13/6/2008. A. Lipińska , C. Simserides , A. Majhofer, K. Trohidou, T. Dietl. Magnetic Structure of <i>p</i> -(Cd,Mn)Te Quantum Well. Monte Carlo Approach. | T | Co |
| 45 | I40 | NN08 (5th International Conf. on Nanosciences & Nanotechnologies), Thessaloniki, Greece, 14-16 July 2008. | | |
| | | A. Zora , C. Simserides , G. P. Triberis. Photoluminescence of self-assembled individual quantum dots in the high temperature regime. | P | Co |
| | | L. Hawke , G. Kalosakas , C. Simserides . Electronic parameters for charge transfer along DNA. | P | Me |

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| | | <u>C. Simserides</u> , A. Lipinska, T. Dietl, K. Trohidou. Looking for ferromagnetism in II-VI dilute-magnetic-semiconductor quantum wells via Monte Carlo – total energy calculations. | P | Me |
| 46 | H6 | Summer School (7-18 July 2008) of NCSR Demokritos. 17/7/2008. Invited talk: C. Simserides . Semiconductor quantum wells doped with magnetic impurities. | IT | Me |
| 47 | I41 | JEMS-08 (Joint European Magnetic Symposia 2008), Dublin, Ireland, 14-19 September 2008. C. Simserides , A. Lipinska, T. Dietl, <u>K. Trohidou</u> . Monte Carlo studies of II-VI dilute-magnetic-semiconductor quantum wells: role of carrier localization. | P | Co |
| 48 | H7 | XXIV Panhellenic Conference of Solid State Physics & Materials Science, Heraclion, Crete, 21-24 Sep 2008. L. Hawke, <u>G. Kalosakas</u> , and C. Simserides . Electronic Parameters for Charge Transport along DNA. | P | Co |
| 49 | I42 | 2009 APS March Meeting, March 16–20, 2009, Pittsburgh, Pennsylvania, Focus Session: Magnetism in II-VI and IV Semiconductors. <u>T. Dietl</u> , A. Lipińska, C. Simserides , K. N. Trohidou, A. Majhofer. Influence of antiferromagnetic interactions on ferromagnetic properties of p-(Cd,Mn)Te quantum wells. Abstract in: Bulletin of the American Physical Society, 2009 APS March Meeting, Volume 54, Number 1. | T | Co |
| 50 | H8 | Invited Talk (candidate for a position) “Low-dimensional carriers under magnetic field: novel phenomena and some biophysical applications of LCAO (flavin, DNA)”, 18/3/2009. <u>C. Simserides</u> . Department of Physics, National and Kapodistrian University of Athens. | IT | Me |
| 51 | I43 | 5th Internat. School & Conference on Spintronics and Quantum Information Technology (Spintech 5), 7-11/7/2009, Cracow, Poland. C. Simserides , A. Lipińska, A. Majhofer, K. N. Trohidou, T. Dietl. Influence of competing antiferromagnetic interactions and disorder on ferromagnetic properties of p-(Cd,Mn)Te quantum wells. | P | Me |
| 52 | I44 | NN09 (6th International Conf. on Nanosciences & Nanotechnologies), Thessaloniki, Greece, 13-15 July 2009. | | |
| | | <u>A. Zora</u> , C. Simserides , G. P. Triberis. Best Talk Award! Emission spectra of single quantum dots in the temperature range 0-300 K | T | Co |
| | | C. Simserides . Two-dimensional carriers under magnetic field: novel phenomena. | T | Me |
| | | L. G. D. Hawke, G. Kalosakas, C. Simserides . Empirical parameters for a LCAO description of π molecular orbitals in planar organic molecules. | P | Me |
| 53 | I45 | 14th International Conference on Modulated Semiconductor structures (MSS-14), Kobe, Japan, 19-24 July 2009. C. Simserides , A. Lipińska, A. Majhofer, K. N. Trohidou and <u>T. Dietl</u> . Influence of antiferromagnetic interactions and of alloy disorder on the ferromagnetic properties of p-(Cd,Mn)Te quantum wells. | P | Co |
| 54 | I46 | 7th BPU (Balkan Physical Union) General Conference, 9-13/9/2009, Alexandroupolis, Greece. | | |
| | | C. Simserides , A. Zora, G.P. Triberis. Low-dimensional carriers under magnetic field: novel phenomena. | T | Me |
| | | L. G. D. Hawke, G. Kalosakas, C. Simserides . Tight binding parameters for charge transport in DNA. | T | Me |
| 55 | H9 | 25th Panhellenic Conf. on Solid State Physics & Materials Science, 20-23 Sep 2009, Thessaloniki, Greece. | | |
| | | <u>G. Kalosakas</u> , L. G. D. Hawke, and C. Simserides . Tight Binding Parameters for Charge Transport in DNA. | T | Co |
| | | C. Simserides , A. Lipińska, A. Majhofer, K. N. Trohidou and T. Dietl. Influence of Antiferromagnetic Interactions and of Alloy Disorder on the Ferromagnetic Properties of p-type (Cd,Mn)Te Quantum Wells. | P | Me |
| | | A. Zora, C. Simserides , G. P. Triberis. Temperature Dependence of Photoluminescence in Individual Self-Assembled Quantum Dots. | P | Me |
| 56 | I47 | 2nd Mediterranean Conference on Nano-Photonics (Medinano 2), 26-27/10/2009, National Hellenic Research Foundation, Athens, Greece. E. Paspalakis, C. Simserides and <u>A. F. Terzis</u> . Control of population transfer between two subbands in semiconductor quantum wells by electromagnetic fields. | T | Co |
| 57 | I48 | Quantum Dot 2010, 26–30/10/2010, East Midlands Conference Centre, Nottingham, UK. <u>A. Zora</u> , C. Simserides and G. P. Triberis. Temperature dependence of the emission spectra of individual self-assembled quantum dots. | P | Co |
| 58 | H10 | XXVI PanHellenic Conf. on Solid State Physics & Materials Science, Ioannina, 26-29/9/2010. | | |
| | | C. Simserides , K. N. Trohidou and T. Dietl. p-doped (Cd,Mn)Te and (Ga,Mn)N Diluted Magnetic Semiconductor Quantum Wells. Extended abstract published in the Proceedings. | T | Me |
| | | C. Simserides . Quasi Two-Dimensional Carriers under In-Plane Magnetic Field: Phenomena Related to the Non-Step-Like Density of States. Extended abstract published in the Proceedings. | P | Me |
| 59 | H11 | 5th Conference of the Hellenic Society for Computational Biology and Bioinformatics, 17-19/10/2010, Alexandroupolis, Greece. L. G. D. Hawke, G. Kalosakas, C. Simserides . Tight-binding parameters for charge transport in DNA”. | T | Me |
| 60 | H12 | Univeristy of Patras Intrauniversity Meeting: Nanophotonics-Advanced Materials “50 Years | P | Co |

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| | | Laser", 6/12/2010, University of Patras Congress Center. <u>S. G. Kosionis</u> , A. F. Terzis, C. Simserides and E. Paspalakis. Analysis of mirrorless optical bistability in intersubband transitions of a semiconductor quantum well. | | |
| 61 | I49 | 4 th Internat. Conf. "Micro&Nano2010" on Micro-Nanoelectronics, Nanotechnologies and MEMs, NCSR Demokritos, Athens, 12-15/12/2010. <u>S. G. Kosionis</u> , A. F. Terzis, C. Simserides, E. Paspalakis. Analysis of mirrorless optical bistability in intersubband transitions of a semiconductor quantum well. | P | Co |
| 62 | I50 | Mediterranean Institute of Fundamental Physics (MIFP), March Meeting 2011, 16-20 March 2011, Castelli Romani, Rome, Hotel Helio Cabala. <u>Invited talk</u> : L. G. D. Hawke, G. Kalosakas, C. Simserides. Tight binding parameters for charge transport along DNA. | IT | Me |
| 63 | I51 | European Science Foundation Conference: Charge transfer in biosystems, Universitaetszentrum Obergurgl, Austria, 17-22/7/2011. <u>M. Dimakogianni</u> , G. P. Triberis, C. Simserides. On the conductivity behaviour of the DNA double helix. | T | Co |
| 64 | I52 | 7 th International Conference on Physics and Applications of Spin-related Phenomena in Semiconductors (PASPS VII), Eindhoven University of Technology, the Netherlands, 5-9/8/2012. <u>A. Navarro-Quezada</u> , T. Devillers, M. Sawicki, A. Grois, S. Dobkowska, W. Stefanowicz, M. Rovezzi, Tian Li, B. Faina, C. Simserides, K. N. Trohidou, J. A. Majewski, T. Dietl, and A. Bonanni. Low temperature magnetic ordering in Ga _{1-x} Mn _x N: experiment vs. theory. | P | Co |
| 65 | H13 | XXVIII Panhellenic Conference on Solid State Physics and Materials Science, 23-26/9/2012, Patras. <u>M. Dimakogianni</u> , C. Simserides and G.P. Triberis. A Study of Small Polaron Hopping Conductivity in 1D Disordered Systems. | T | Me |
| 66 | I53 | BIT's 2nd Annual World Congress of Nano-Sciences & Technologies 2012, 26-28 Oct 2012, Qingdao, China. <u>Invited talk</u> : C. Simserides. Aspects of charge transport along DNA. 27/10/2012. | IT | Me |
| 67 | I54 | 10 th Internat. Conference on Nanosciences & Nanotechnologies (NN13) 9-12/7/2013, Thessaloniki, Greece. <u>M. Dimakogianni</u> , C. Simserides, G. P. Triberis. Influence of the density of states and of the extent of the electronic wave function on the small polaron hopping conductivity in 1D. | T | Me |
| 68 | I55 | 7 th Internat. School & Conference on Spintronics and Quantum Information Technology (Spintech 7), 29/7/-2/8/2013, InterContinental Chicago, 505 North Michigan Avenue Chicago, IL 60611, USA. <u>M. Sawicki</u> , G. Kunert, S. Stefanowicz, J.A. Majewski, C. Simserides, R. Adhikari, A. Grois, T. Devillers, C. Kruse, T. Li, W. Stefanowicz, R. Jakiela, K. N. Trohidou, D. Homel, T. Dietl, A. Bonanni. Ferromagnetism and spin filters of (Ga,Mn)N. | P | Co |
| 69 | I56 | JEMS (Joint European Magnetic Symposia) 2013, 25-30 August 2013, Rodos Palace Convention Center, Rhodes, Greece. C. Simserides, J.A. Majewski, K.N. Trohidou, T. Dietl. Theory of ferromagnetism driven by superexchange in dilute magnetic semiconductors. | T | Me |
| 70 | I57 | Joint Conferences on Advanced Materials: FNMA'13 - The 10 th Conference on Functional and Nanostructured Materials IMIM'13 - The 12 th Conference on Intermolecular and Magnetic Interactions in Matter 8-12 September 2013, Poros Island, Greece. <u>Invited talk</u> : C. Simserides Evolution of charge along DNA. | IT | Me |
| 71 | I58 | 11 th International Conference on Nanosciences & Nanotechnologies (NN14) 8-11/7/2014, Thessaloniki, Greece. | | |
| | | <u>K. Lambropoulos</u> , K. Kaklamanis, G. Georgiadis, C. Simserides. THz and above THz electron or hole oscillations in DNA dimers and trimers.- | T | Co |
| | | C. Grosler, M. Mantela, <u>K. Lambropoulos</u> , K. Kaklamanis, G. Georgiadis, C. Simserides. Electronic structure of nucleic acid bases and analogues with linear combination of atomic orbitals. | P | Co |
| 72 | I59 | Physics Meets Biology, 3-5/9/2014, University of Oxford, Oxford, UK. <u>K. Lambropoulos</u> , K. Kaklamanis, G. Georgiadis, C. Simserides. THz charge oscillations and charge transfer in DNA dimers, trimers and polymers. | P | Me |
| 73 | I60 | Energy, Materials and Nanotechnology (EMN) Open Access Week meeting, 22-25 Sep 2014, Chengdu, China, http://www.emnopen.org/2014/ <u>Invited talk</u> : C. Simserides. Systematic study of carrier transfer in DNA polymers"at EMN Workshop on Biomaterials. http://www.emnopen.org/2014/biomaterials/ | IT | Me |
| 74 | H14 | 30 th Pan-hellenic conference on Solid-State Physics and Materials Science, 21-24/9/2014, FORTH, Heraklion, Crete, Greece. | | |
| | | <u>K. Lambropoulos</u> , K. Kaklamanis, G. Georgiadis, C. Simserides. THz charge oscillations and charge transfer in DNA. | T | Co |
| | | <u>M. Mantela</u> , C. Simserides. Nucleic acid bases and analogues: electronic structure with LCAO. | P | Co |
| 75 | H15 | 9 th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB14), Agricultural University of Athens in 10-12 October 2014. <u>K. Lambropoulos</u> , K. Kaklamanis, G. Georgiadis, and C. Simserides. Charge oscillations in the mid-to-far infrared | T | Co |

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| | | and charge transfer in DNA. | | |
| 76 | I61 | 36 th PIERS (Progress In Electromagnetics Research Symposium), 6-9 July 2015, Prague. <u>K. Lambropoulos</u> , K. Kaklamanis, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou, M. Tassi, A. Morphis and C. Simserides . THz oscillations in DNA monomers, dimers and trimers. Best Student Paper Award (Optics and Photonics) . | T | Co |
| 77 | I62 | 12th International Conference on Nanosciences & Nanotechnologies (NN15), 7-10/7/2015, Thessaloniki, Greece. | | |
| | | A. Morphis, M. Mantela, <u>M. Tassi</u> , and C. Simserides . Ab initio calculations of the first π -ionization and π - π^* excitation energy of biologically important heterocyclic planar molecules. | T | Co |
| | | K. Lambropoulos, K. Kaklamanis, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou, M. Tassi, A. Morphis, and <u>C. Simserides</u> . THz oscillations in small DNA segments. | P | Me |
| | | M. Mantela and <u>C. Simserides</u> . Electronic structure of modified or not DNA bases with the linear combination of atomic orbitals method. | P | Me |
| 78 | H16 | 31th Pan-hellenic conference on Solid-State Physics and Materials Science, 20-23/9/2015, Thessaloniki, Greece. | | |
| | | <u>K. Lambropoulos</u> , K. Kaklamanis, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou, M. Tassi, A. Morphis, and C. Simserides . THz oscillations in small B-DNA segments. | T | Co |
| | | A. Morphis, M. Mantela, <u>M. Tassi</u> , and C. Simserides . Ab initio calculations of ionization and excitation energies of biologically important heterocyclic planar molecules. | P | Co |
| 79 | H17 | Participation of the Group <i>Physics of Nanostructures and Biomaterials</i> at Researchers Night at National Technical University of Athens (NTUA), 25/9/2015, Averof Building, NTUA. K. Kaklamanis, K. Lambropoulos, A. Morphis, M. Tassi, M. Theodorakou, C. Simserides Simulations, presentations, video, computers, games with simple materials and posters. | | Science to public |
| 80 | I63 | The Physics of Soft and Biological Matter 2016, 6-8 April 2016, Homerton College, Cambridge, UK. K. Kaklamanis, K. Lambropoulos, A. Morphis, M. Tassi, R. Lopp, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou, and <u>C. Simserides</u> . Three methods predict THz oscillations in DNA monomers, dimers, and trimers. | P | Me |
| 81 | I64 | Biosensors 2016, 26th Anniversary World Congress on Biosensors, Gothenburg, Sweden, 25-27 May 2016. A. Morphis, K. Lambropoulos, M. Tassi, K. Kaklamanis, R. Lopp, G. Georgiadis, M. Theodorakou, <u>M. Chatzieftheriou</u> , and C. Simserides . Three methods predict THz oscillations in DNA monomers, dimers, and trimers. | P | Co |
| 82 | I65 | Second International Conference on Materials Science and Technology (ICMST 2016), 5-8 June 2016, St. Thomas College, Pala, Kerala, India. Keynote Lecture: C. Simserides . THz oscillations in DNA monomers, dimers, and trimers. | K | Me |
| 83 | I66 | 13th Internat. Conference on Nanosciences & Nanotechnologies (NN16), 5-8/7/2016, Thessaloniki, Greece. <u>M. Tassi</u> , A. Morphis, K. Kaklamanis, K. Lambropoulos, R. Lopp, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou and C. Simserides . Charge oscillations in DNA monomers and dimers. | P | Co |
| 84 | I67 | Joint European Magnetic Symposia (JEMS) 2016, Glasgow, 21-26/8/2016. <u>A. Patsopoulos</u> , D. Kechrakos, O. Chubykalo-Fesenko, C. Simserides and G. P. Triberis. Atomistic modeling of exchange bias effect in magnetic nanowires. | P | Co |
| 85 | I68 | Second Marie Curie School on Domain Walls and Spintronics, 12-16/9/2016, Spetses, Greece. A. Patsopoulos, D. Kechrakos, O. Chubykalo-Fesenko, C. Simserides & G.P. Triberis. Monte Carlo study of domain wall propagation in ferromagnetic-antiferromagnetic nanowires. | P | Co |
| 86 | H18 | XXXII Panhellenic Conference on Solid State Physics & Materials Science, Ioannina, 18-21 /9/2016. | | |
| | | <u>Ch. Zacharaki</u> , M. Mantela, A. Morphis, M. Tassi, and C. Simserides . Electronic structure of purines, pyrimidines and similar molecules with LCAO | P | Co |
| | | M. Tassi, A. Morphis, K. Lambropoulos, K. Kaklamanis, R. Lopp, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou, and <u>C. Simserides</u> . Extra Carrier Transfer Oscillations in DNA Monomers, Dimers and Trimers. | T | Me |
| | | A. Patsopoulos, <u>D. Kechrakos</u> , O. Chubykalo-Fesenko, C. Simserides and G. P. Triberis. Modeling domain wall velocity in bi-magnetic nanowires. | T | Co |
| 87 | H19 | Participation of the Group <i>Physics of Nanostructures and Biomaterials</i> at Researchers Night at National Technical University of Athens (NTUA), 30 September 2016, Averof Building, NTUA. Ch. Zacharaki, M. Mantela, K. Lambropoulos, A. Kosma, M. Tassi, A. Morphis, C. Simserides . Simulations, presentations, video, computers, games with simple materials and posters. Participation in the treasure hunt. | | Science to public |
| 88 | I69 | Mediterranean Institute of Fundamental Physics (MIFP), March Meeting 2017, 8-11 March 2017, Castelli Romani, Rome, Hotel Helio Cabala. C. Simserides . Invited Talk : Charge transfer - THz oscillations in DNA segments. 9/3/2017. | IT | Me |
| 89 | H20 | Participation of the Group <i>Physics of Nanostructures and Biomaterials</i> at Researchers Night at National Technical University of Athens (NTUA), 29 September 2017, Averof Building, NTUA. Ch. Zacharaki, K. Kaklamanis, K. Lambropoulos, M. Mantela, A. Morphis, C. | | Science to public |

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|----|-----|--|-----------------------------------|--------------------------------|
| | | Simserides. Simulations, presentations, video, computers, games with simple materials and posters. Participation in the treasure hunt. | | |
| 90 | I70 | Progress in Electromagnetics Research Symposium (PIERS 2017), 19- 22 November 2017, http://piers.org/piers2017Singapore/ Nanyang Technological University, Singapore. Session: "THz and Biosystems". Organizer, Chair and Referee of articles and abstracts submitted to the Session: C.Simserides | SO CH RE | Me |
| | | Talks: | | |
| | | 1. Wireless Communication through Microtubule Analogue Device: Noise Driven Machines in the Biosystems. Komal Saxena, Karthik Kadaba Karthik, Suryakant Kumar, Krishnananda Soami Daya, Anirban Bandyopadhyay . | | |
| | | 2. Complete Dielectric Resonator Model of Human Brain from MRI Data; A Journey from Connectome Neural Branching to Single Protein. Pushpendra Singh, Kanad Ray, Anirban Bandyopadhyay . | | |
| | | 3. Two TB Approaches (a Wire Model and an Extended Ladder Model) as Well as RT-TDDFT, Predict THz Oscillations in DNA Monomers, Dimers and Trimers. K. Lambropoulos, K. Kaklamanis, A. Morphis, M. Tassi, G. Georgiadis, Constantinos Simserides . | T | Me |
| | | 4. Frequency Content of Carrier Oscillations along B-DNA Polymers. K. Lambropoulos, M. Mantela, Constantinos Simserides . | T | Me |
| | | 5. Analysis of Anisotropic B-factors in Bovine Trypsin Crystals upon Terahertz Irradiation. Viktor Ahlberg Gagner, Ida Lundholm, Maria-Jose Garcia-Bonete, Helena Rodilla, Gleb Bourenkov, Thomas Schneider, Jan Stake, Gergely Katona . | | |
| | | 6. Terahertz Reflectance Phase Spectroscopy for Biological Analysis and Diagnosis. Hiroaki Fukuda , Kodo Kawase. | | |
| | | 7. Investigating the Impact of Fibroblast Cell Density on Optical Properties of Dermal Equivalents Using Terahertz Time Domain Spectroscopy. Rui Zhang, Ke Yang, Qammer Hussain Abbasi , Khalid A. Qaraqe, Akram Alomainy. | | |
| | | 8. Terahertz Electromagnetic Communication for In-vivo Wireless Nanosensor Networks. Hadeel Elayan, Raed M. Shubair , Josep M. Jornet, Pedram Johari, Raj Mittra. | | |
| | | 9. Design of Implantable Monopole Inset-feed C-shaped Slot Patch Antenna for Bio-medical Applications. Ketavath Kumar Naik , Pasumarthi Amala Vijaya Sri, J. Srilakshmi. | | |
| | | Also, poster (in another poster Session): M. Tassi, A. Morphis, K. Lambropoulos, and C. Simserides . RT-TDDFT study of charge oscillations in B-DNA monomers and dimers. | P | Me |
| 91 | H21 | Participation of the Group <i>Physics of Nanostructures and Biomaterials</i> in the National and Kapodistrian University of Athens Open Day, 24 November 2017. C. Simserides (Academic Officer of the Department of Physics for the organization of the Open Day).K. Kaklamanis, K.Lambropoulos (presenters). | | Science to public CO |
| 92 | H22 | National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, Athens, 25 January 2018. Invited Talk: C. Simserides. Carrier Oscillations along B-DNA Monomers, Dimers, Trimers and Polymers. | IT | Me |
| 93 | I71 | Mediterranean Institute of Fundamental Physics (MIFP), March Meeting 2018, 28 February - 3 March 2018, Castelli Romani, Grand Hotel Helio Cabala (Marino), Rome. Invited Talk given by PhD student: K. Lambropoulos and C. Simserides. Electronic structure and charge transport properties of atomic carbon wires (carbynes). | IT | Co |
| 94 | H23 | Developments and trends in natural sciences today II, six Tuesdays, 17.00-20.30, 13/2/2018 - 20/3/2018, 30 hours seminar at Pasteur Institute, 127 Vas. Sofias, Athens. Organization: School Counselors of Natural Science Education in Athens, under the auspices of the Attica region. At each meeting two seminars (17: 00-18:30 & 19:00-20:30). Invited Seminar: C. Simserides. Introduction to DNA structure and carrier transfer and transport along DNA, 20/2, | IT | Me |
| 95 | I72 | Member of the Organizing Committee of Energy, Materials and Nanotechnology (EMN), Greece Meeting, 14-18 May 2018, Heraklion-Crete, Greece. Chairman of the Sessions "Keynote" and "Biophysics" . Also: Invited Talk: Carrier transfer and transport along nucleic acid wires. C. Simserides | CO, SO, CH, IT | Me |
| 96 | H24 | XXXIII Panhellenic Conference on Solid State Physics and Materials Science, University of Cyprus, 17-19/9/2018, Nicosia, Cyprus. M. Mantela , K. Lambropoulos, M. Theodorakou, and C. Simserides. Quasi-periodic and fractal polymers: energy structure and carrier transfer. | T | Co |
| 97 | H25 | Participation of the Group <i>Physics of Nanostructures and Biomaterials</i> in the National and Kapodistrian University of Athens Open Day, 2 November 2018. C. Simserides (Academic Officer of the Department of Physics for the organization of the Open Day)K.Lambropoulos, M. Mantela (presenters). | | Science to public CO |
| 98 | H26 | Participation of the Group <i>Physics of Nanostructures and Biomaterials</i> in the National and Kapodistrian University of Athens Open Day, 1 March 2019. C. Simserides (Academic Officer of the Department of Physics for the organization of the Open Day). K. Lambropoulos, M. Mantela, C. Simserides (presenters). | | Science to public CO |

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|-----|-----|---|-------------------------|----|
| 99 | I73 | 41st Photonics and Electromagnetics Research Symposium, aka Progress In Electromagnetics Research Symposium (PIERS 2019), 17-20 June 2019, Rome, Italy. <u>M. Mantela</u> , K. Lambropoulos, C. Vantaraki, P. Bilia, A. Morphis, and C. Simserides . Frequency content of carrier oscillations along B-DNA aperiodic and periodic polymers. Honorable Mention Student Paper (Antennas & Microwave Technologies) for the presenter M. Mantela. | T | Co |
| 100 | H27 | XXXIV Panhellenic Conference on Solid State Physics & Materials Science, Patras, 11-14/9/2019. Invited Talk: C. Simserides. Charge transfer and transport in carbon polymers and biopolymers. | IT | Me |
| 101 | I74 | Institute of Materials Simulation, Department of Materials Science, Friedrich-Alexander-University Erlangen-Nürnberg, Dr.-Mack-Str. 77, 90762 Fürth, Germany, 4/2/2020. Invited Talk: C. Simserides. Charge transfer and transport in carbon polymers (cumulenic and polyynic) and biopolymers (periodic, quasiperiodic, fractal and random). | IT | Me |
| 102 | H28 | Day of PhD Candidate Research Activity, Condensed Matter Physics Section, Department of Physics, NKUA, Wednesday, February 19, 2020, Department of Physics Meeting Room, Hours 10:00 - 14:00. <u>C. Simserides</u> , chairman at one of the two sessions. | CH | |
| 103 | H29 | Invited Talk. C. Simserides. Workshop for professional orientation at Lycée Léonin, Nea Smyrni, 27-2-2020. | IT | Me |
| 104 | H30 | 104) Participation of the Group <i>Physics of Nanostructures and Biomaterials</i> in the National and Kapodistrian University of Athens Open Day, 6 March 2020. C. Simserides (Academic Officer of the Department of Physics for the organization of the Open Day). K. Lambropoulos, M. Mantela, C. Simserides (presenters). | Science to public CO | |
| 105 | I75 | 17 th International Conference on Nanosciences & Nanotechnologies (NN20), 7-10 July 2020, Thessaloniki, Greece. Workshop 2: Nanomaterials, Nanofabrication, Nanoengineering and Nanoconstruction. C. Simserides , A. Morphis, K. Lambropoulos. Hole transfer in cumulenic and polyynic carbynes. | T | Me |
| 106 | H31 | Invited Talk. C. Simserides. Workshop for professional orientation at Lycée Léonin, Nea Smyrni, 25-2-2021. | IT | Me |
| 107 | I77 | 18th International Conference on Nanosciences & Nanotechnologies (NN21) 6-9 July 2021, Thessaloniki, Greece. | | |
| | | <u>M. Mantela</u> , A. Morphis, K. Lambropoulos, C. Simserides , R. Di Felice. How structural dynamics affect hole transfer in B-DNA: A Combination of MD, RT-TDDFT and TB. Oral, Live via Internet. | T | Co |
| | | C. Simserides , A. Morphis, K. Lambropoulos. Hole Transfer in Open Carbyne Chains. Oral, Live via Internet. | T | Me |
| 108 | I76 | ANBRE21 (Arch Eng, Nano, Bio, Robotics & Energy). The 2021 International Conference on Advances in Biomaterials and Biomechanics in Bioengineering (ICBME21), Seoul National University, Korea, August 23-26, 2021. | | |
| | | C. Simserides , A. Morphis, K. Lambropoulos. Hole Transfer in Open Cumulenic and Polyynic Carbyne Chains. Oral, Live via Internet. We also published a proceedings paper. | T | Me |
| | | M. Mantela, A. Morphis, K. Lambropoulos, C. Simserides , R. Di Felice. Structural dynamics and hole transfer in B-DNA: combining MD, RT-TDDFT and TB. Oral, Live via Internet. | T | Me |
| 109 | H32 | XXXV Panhellenic Conference on Solid State Physics and Materials Science Congress Center, NCSR Demokritos, 26-29 September 2021, Athens, Greece | | |
| | | Averaging method and coherence applied to Rabi oscillations in a two-level system <u>L. Chalkopiadis</u> , C. Simserides (poster) | P | Co |
| | | Monte Carlo simulations of Heisenberg model with 1, 2, 3 and 4 neighbors for fcc lattice and with many neighbors for (Ga,Mn)N: dilute magnetic doping of fcc and hcp cation lattices <u>P. Bilia</u> and C. Simserides (poster) | P | Co |
| | | How structural variability affects hole transfer in B-DNA: A Combination of MD, RT-TDDFT and TB <u>M. Mantela</u> , A. Morphis, K. Lambropoulos, C. Simserides , R. Di Felice (talk) | T | Co |
| 110 | H33 | Charge transfer and transport in bioelement atomic wires and biopolymers. C. Simserides , Invited Talk, 18 December 2021. Organized by Materials Science Department, School of Natural Sciences, University of Patras and Hellenic Society of Condensed Matter Science and Technology. Online workshop on Computational Materials Science. www.matersci.upatras.gr/cms21/ | IT | Me |
| 111 | H34 | Periodic, quasiperiodic, fractal, and random DNA sequences: carrier transfer and transport. C. Simserides . Invited talk at COSA-Net (network of Complex Systems and Applications) Seminars (http://cosa.inn.demokritos.gr/). 02 June 2022. | IT | Me |

Current

9. Citations (lists of red and green items are not complete):

612 Heterocitations (black)

14 Heterocitations in technical reports, abstracts, talks, collection, open-ebooks (red)

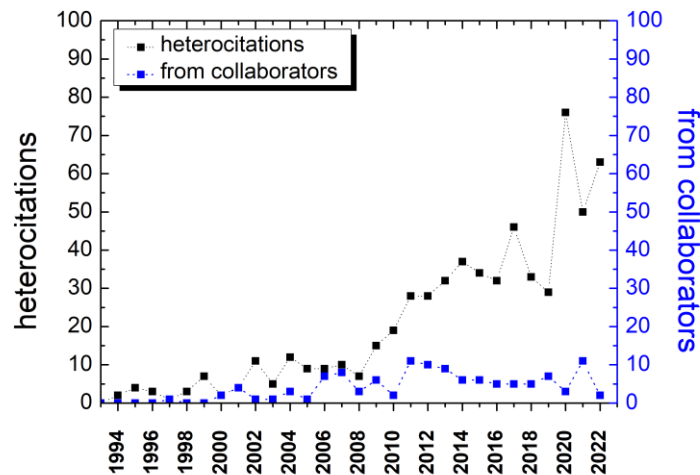
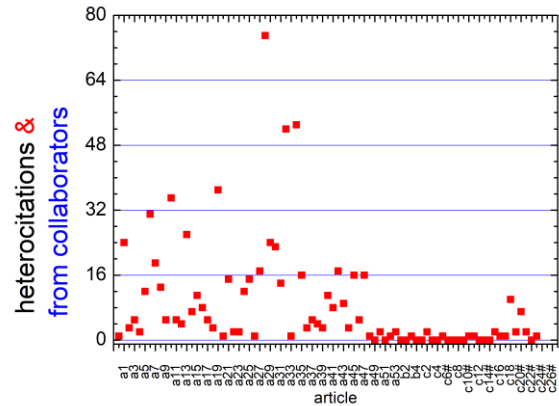
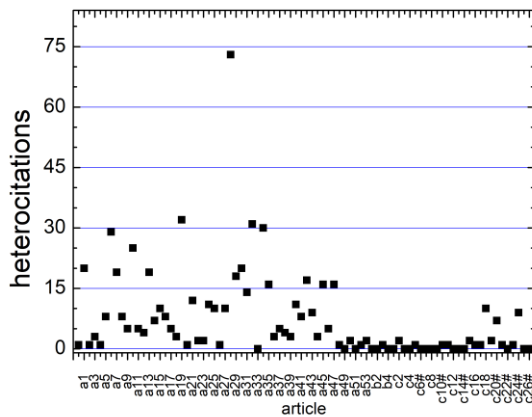
119 Citations from collaborators (blue)

9 Citations from collaborators in technical reports and abstracts (green)


According to the data shown below,

my h-index (heterocitations only) is **15**

my h-index (heterocitations and citations from collaborators, excluding self-citations) is **16**



To my PhD thesis: 1996, Department of Physics, National and Kapodistrian University of Athens. PhD Thesis: "Electronic properties and mobility of selectively doped heterostructures $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{As}$ ".

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To article (a1): A systematic study of electronic states in $n\text{-Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}/n\text{-Al}_x\text{Ga}_{1-x}\text{As}$ selectively-doped double-heterojunction structures, **C. D. Simserides** and G. P. Triberis, Journal of Physics: Condensed Matter **5** (1993) 6437-6446, doi: [10.1088/0953-8984/5/35/009](https://doi.org/10.1088/0953-8984/5/35/009)

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ФУНКЦИОНАЛЬНАЯ МЕЖПОЛУШАРНАЯ АСИММЕТРИЯ МОЗГА ЧЕЛОВЕКА И СЛУХОВАЯ ФУНКЦИЯ ВАЙТУЛЕВИЧ С.Ф.1, ПЕТРОПАВЛОВСКАЯ Е.А.*1, ШЕСТОПАЛОВА Л.Б.1, НИКИТИН Н.И.1

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Functional Hemispheric Asymmetry of the Human Brain in Audition

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