

Nikos (Nick) Lazarides - Curriculum Vitae - October 20, 2018

I. Personal information



Date & place of birth: July 27, 1966, Thessaloniki, Greece

Nationality: Greek

Marital status: Married, two children

Home address: P. Kelaidi 30, 71306, Heraklion, Greece

Tlf.: (+30) 2810 32 70 16

Mob.: (+30) 6974 87 57 07

Current address: Physics Department, University of Crete
P.O. Box 2208, 71003, Heraklion, Greece

Tlf.: (+30) 2810 39 42 60

Fax: (+30) 2810 39 43 01

e-mail: nl@physics.uoc.gr

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II. Education

- *Ph.D. Degree* in Applied Mathematical Physics at the Department of Informatics and Mathematical Modeling (taken over by the Department of Applied Mathematics and Computer Science, 31/12/2012), The Technical University of Denmark (DTU), Denmark, March 9, 1995.
- *Master of Science* (M.Sc.) in Physics at the Department of Physics, University of Crete, Greece, October 7, 1991.
- *Bachelor of Science* (B.Sc.) in Physics at the Department of Physics, University of Crete, Greece, July 13, 1989.

III. Previous Employment (mm/yyyy - mm/yyyy)

09/2004 - present	<i>Research Assistant Professor</i> at the University of Crete, Department of Physics.
03/2013 - 07/2013	<i>Adjunct Assistant Professor</i> at the University of Crete, Department of Materials Science and Technology.
10/2012 -02/2013	<i>Scientific Collaborator</i> for teaching of Lecture and Laboratory courses at the Technological Educational Institute (TEI) of Crete, School of Applied Technology, General Applied Sciences Department & Department of Electrical Engineering.
10/2010 - 06/2011	<i>Scientific Collaborator</i> for teaching and research at the Technological Educational Institute (TEI) of Crete, School of Applied Technology, Department of Electrical Engineering.
02/2009 - 08/2013	<i>Collaborating Researcher</i> at the Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology-Hellas (FORTH).
09/2005 - 06/2010	<i>Scientific Collaborator</i> for teaching and research at the Technological Educational Institute (TEI) of Crete, School of Applied Technology, Department of Electrical Engineering.
09/2002 - 08/2004	<i>Adjunct Assistant Professor</i> at the University of Crete, Department of Materials Science and Technology.
09/2001 - 06/2007	<i>Scientific Collaborator</i> for teaching Lecture and Laboratory courses at the Technological Educational Institute (TEI) of Crete, School of Applied Technology, General Applied Sciences Department.
09/2001 - 08/2002	<i>Adjunct Lecturer</i> at the University of Crete, Department of Physics.
02/1997 - 08/2001	<i>Post-doctoral Researcher</i> at the University of Crete, Department of Physics.
08/1995 - 01/1997	military service (mandatory) required by Greek law.
04/1995 - 07/1995	<i>Research Associate</i> at the Department of Informatics and Mathematical Modeling, The Technical University of Denmark (DTU).

IV. Teaching Experience - Courses Taught

He has taught seven (7) undergraduate courses at the University of Crete, School of Sciences and Engineering, and four (4) undergraduate courses at the Technological Educational Institute of Crete, School of Applied Technology, during the academic years 2001 – 2011 and 2012 – 2013. A list of those courses along with a brief description for each of them is provided below (course code is given in parentheses). The two courses he taught most frequently were "*Dynamical Systems*" at the Department of Physics, University of Crete (three times: Fall 2001 – 2002, Spring 2009 – 2010, Spring 2010 – 2011) and "*Electrotechnique Lecture + Laboratory*" at the Department of Mechanical Engineering, Technological Educational Institute of Crete, School of Applied Technology (eight times, Fall and Spring semesters of the academic years 2007 – 2011).

A. at the University of Crete, School of Sciences and Engineering:

- **"Dynamical Systems"** at the Department of Physics (Φ -408 Γ).
Fourth year elective course (4 hours per week, 6 ECTS). An introduction to nonlinear dynamics and chaos. Concrete examples from physics, biology, chemistry, and engineering are used to develop analytical methods and geometric intuition. Topics covered include phase plane analysis, perturbation methods, iterated maps, and strange attractors.
- **"Physics II"** at the Department of Applied Mathematics (Φ -102A).
First year compulsory course (6 hours per week, 7 ECTS). A calculus-based course emphasizing basic electromagnetic theory and electromagnetic waves. Topics covered include electric field, Coulomb's law, Gauss's law, electric potential, magnetic field, the Biot-Savart law, Ampere's law, Faraday's law, Maxwell's equations, and electromagnetic waves.
- **"Computers II"** at the Department of Materials Science and Technology (ETY-213).
Second year elective course (2 hours lecture + 3 hours laboratory per week, 5 ECTS). An introduction to numerical methods; numerical integration, solution of ordinary differential equations, nonlinear equations, Gaussian elimination, LU decomposition, least squares fitting and polynomial interpolation. Students write programs in Fortran or C++ using methods presented in class.
- **"Applied Mathematics"** at the Department of Materials Science and Technology (ETY-116).
First year compulsory course (5 hours per week, 6 ECTS). An introductory course to linear algebra, probability theory, and complex numbers. Topics covered include vector spaces, Gram-Schmidt orthonormalization, matrix algebra, linear systems, eigenvalue problems, complex numbers and complex functions, Taylor and Laurent series, the residue theorem, basic concepts of probability, random variables, conditional probability, and introduction to statistics.
- **"Physics I Laboratory: Mechanics and Thermodynamics"** at the Department of Physics (Φ -108A).
First year compulsory laboratory course (3 hours per week, 7 ECTS). An introduction for students who already have a background in mechanics and thermodynamics into the process of experimental measurements, and the basic methods of analysis of experimental data. Through the lab exercises the students have the opportunity to verify physical laws that they have been taught, and make measurements of basic physical quantities. Lab exercises include the study of the free fall, oscillations on the air-track, rotation of solid bodies, the determination of the

electrical equivalent of heat, measurement of specific heat of solids, and measurement of the viscosity of fluids.

- **”Physics II Laboratory: Electricity and Optics”** at the Department of Materials Science and Technology (ETY-204).

Second year compulsory laboratory course (3 hours per week, 6 ECTS). Introductory physics laboratory, with experiments in electricity and optics. Lab exercises include RC, RL and RLC circuits, filters and parallel RL resonance, measurement of the force between the plates of a capacitor, geometrical optics, thin lenses, Fraunhofer diffraction, and refraction through a prism.

- **”Condensed Matter Physics (Complex Metamaterials)”** at the Department of Physics (Φ-442B).

Fourth year elective course (4 hours per week, 6 ECTS). Topics covered include a review of electromagnetism, metamaterial elements, electrical circuit equivalents, metamaterial modeling, microwave and optical metamaterials, nonlinear and superconducting metamaterials, SQUID metamaterials, and their dynamical aspects.

B. at the Technological Educational Institute of Crete, School of Applied Technology:

- **”Physics Laboratory: Mechanics and Thermodynamics”** at the Department of Mechanical Engineering and the Department of Civil and Structural Engineering (TΔ110B).

First year compulsory Laboratory course (2 hours per section per week) corequisite with the corresponding Lecture course, with lab exercises designed to develop a greater conceptual understanding of mechanics and thermodynamics. It develops skills in measuring and analyzing physical data, and provides some experience with measurement equipment. Lab exercises include error analysis, pendulum, velocity and acceleration, friction, momentum conservation, Newton’s 2nd law, thermal expansion, specific heat capacity, and thermocouples.

- **”Physics Laboratory: Electromagnetism and Optics”** at the Department of Electrical Engineering and the Department of Informatics Engineering (TP10K1).

First year compulsory laboratory course (2 hours per section per week) corequisite with the corresponding Lecture course, with experiments in electricity, magnetism, and optics that include oscilloscope basics, error analysis, Ohm’s law, direct and alternating current circuits, electromagnetic oscillations, the photoelectric effect, and diffraction grating.

- **”Electrotechnique, Lecture + Laboratory”** at the Department of Mechanical Engineering (TM138).

Second year compulsory course (3 hours lecture + 2 hours laboratory per week, 6 ECTS). The aim of this course is the theoretical understanding and the analysis of basic direct and alternating current electrical circuits. The theories and laws are applied and verified in lab experiments. *Lecture:* Charge and current, voltage, power and energy, circuit elements, Ohm’s law, nodes, branches and loops, capacitors, inductors, series and parallel capacitors/inductors, Kirchhoff’s laws, voltage and current division, source transformation, RL, RC, and RLC circuits, Thevenin’s and Norton’s theorems, and maximum power transfer.

Laboratory: Basic lab equipment and measurements, periodic signals and oscilloscope measurement techniques, simple circuit measurements and Ohm’s law, RL and RC circuits, series and parallel RLC circuits, Thevenin and Norton equivalent circuits.

- **”Electronics I Laboratory”** at the *Department of Electrical Engineering (310B)*.
Second year compulsory course (2 hours per week), the Laboratory Section of the course *”Electronics I”*. It introduces the students to the design and measurement of simple electronic circuits using diodes and transistors. Lab exercises include characteristics of semiconductor diodes and Zener diodes, rectification, voltage multiplication, characteristics of a transistor under common emitter, common collector, and common base configurations, transistor small-signal amplifier, and transistor switch.

V. Research work

A. Current research interests

- Superconductivity, superconducting devices and circuits, arrays of long and small Josephson junctions, SQUIDs and superconducting transmission lines.
- Wave propagation and power transmission both in discrete and continuous system, nonlinear wave propagation with/without disorder, extreme events.
- Fundamentals and applications of localization and transfer of nonlinear excitations both in continuous and discrete systems, intrinsic localized modes (discrete breathers) and solitons.
- Physics and applications of condensed matter systems with spontaneous tendencies toward complex electronic pattern formation, heterostructures.
- Metamaterials, nonlinear, superconducting, and active. Systems with parity-time (\mathcal{PT}) symmetry that relies on gain and loss, flat-band systems.
- Superconducting qubits and superconducting quantum metamaterials for applications in quantum technologies.

B. Major scientific achievements

Nick Lazarides and his collaborators have

- identified the bifurcations in the components of the gap function with varying temperature in BCS-type superconductors, by solving the corresponding nonlinear gap equations. Those bifurcations are interpreted as internal transitions from a superconducting state to another. The various superconducting states differ in the symmetry of their gap functions (1992).
- verified the dependence of the critical transition temperature on the number of layers in layered superconductors using phenomenological BCS-type models, and they have proposed an experiment to conclude on the sign of the interlayer interaction (1993).
- confirmed the scenario for the existence of a peculiar ”bunched” multisoliton state which may be generated in annular Josephson junctions performing extensive numerical simulations with the perturbed sine-Gordon equation (1995, 1996).
- predicted the radiation of moving solitons of the fluxon type due to the Cherenkov effect in superlattices of Josephson junctions described by effectively nonlocal sine-Gordon type equations, and they have determined the frequency of that radiation (2002).

- calculated a general expression for the Josephson current in double-barrier superconductor-ferromagnet junctions by solving analytically the corresponding Bogoliubov - de Gennes equations. The obtained expression produces the observed temperature-dependence and the $0 - \pi$ transition with varying temperature (2003).
- demonstrated numerically the existence of compound solitons (2005) and dissipative discrete breathers (2006, 2008) in nonlinear metallic metamaterials and superconducting (SQUID) metamaterials, respectively, both comprising resonant elements.
- suggested a novel magnetic metamaterial comprising rf SQUIDs as its elementary units, which may exhibit effectively negative magnetic permeability. Those results have initiated intense experimental activity in the field (2007).
- provided a plausible explanation for the concentration of electronic charge close to a transition-metal-oxide interface by applying the Ginzburg-Landau theory of phase transitions to nonlinear elasticity models (2011).
- demonstrated theoretically a novel, nonlinear, parity-time symmetric metamaterial in which balanced gain and loss allows for the generation of very long-lived, breather-like localized modes that are driven solely by the gain (2013).
- predicted the dynamic multistability effect in SQUID metamaterials that provides fast switching capabilities (2013), as well as the existence of counter-intuitive dynamic states referred to in literature as *chimera states*, both in the nonlocal (2015) and the local coupling regime (2016).
- reported the existence of very long-lived intrinsic localized modes (discrete breathers) in free-standing graphene; the lifetimes were determined using extensive atomistic simulations (2016).
- demonstrated that quantum coherence is induced in a superconducting quantum metamaterial comprising a charge qubit chain by propagating self-induced transparent electromagnetic pulses (2016).
- investigated localization effects in nonlinear Hamiltonian SQUID metamaterials on a Lieb lattice which exhibit a frequency spectrum with a flat-band; particular emphasis was given to the transition from flat-band to nonlinear localization as a function of the amplitude of single-site initial excitations (2017).
- discovered multistable dissipative breather families and spatially-ordered temporally-chaotic states in SQUID metamaterials on two-dimensional Lieb lattices (2018).

C. Participation in *Research Projects* (in reverse chronological order)

13. **"SQUID metamaterials: chimera states and spatio-temporal dynamics (SQUIRREL)"** (No. 203), 2018-2020;

Coordinator: Dr. Johanne Hizanidis, Department of Physics, University of Crete, Greece;

Funding: General Secretariat for Research and Technology (GSRT) and Hellenic Foundation for Research and Innovation (HFRI);

Call: 1st Call for the support through research projects for Postdoctoral Researchers working in the Greek Universities and Research Centers;

- Budget:* 200,000 euro;
Role: Researcher.
12. **”Superconducting and Quantum Metamaterials”**, (Contract No. 339/76-2015);
Coordinator: Ass. Prof. A. Mandilara, Nazarbayev University, Republic of Kazakhstan;
Funding: The Ministry of Education and Science of the Republic of Kazakhstan;
Role: Researcher, from June 01 to August 31, 2017.
11. **”Nonlinear Dynamics, Complexity and Self-Organization in Physics and Technology”**
(Grant No. K2-2015-007 & K2-2017-006), 2015-2018.
Coordinator: Prof. G. P. Tsironis, University of Crete, Greece, and NUST ”MISiS”, Russia;
Funding: The Ministry of Education and Science of the Russian Federation;
Call: Increase Competitiveness Program of National University of Science and Technology ”MISiS”;
Role: Member of the Research Team - Senior Researcher.
- 10 **”Crete Center for Quantum Complexity and Nanotechnology (CCQCN)”**, 2013-2016;
Coordinator: Prof. G. P. Tsironis, University of Crete, Greece;
Funding: European Union Seventh Framework Programme (FP7), under grant agreement no 316165;
Call: REGPOT-2012-2013-1;
Budget: 4,811,000 euro;
Role: Member of the Research Team - Senior Researcher.
9. **”Mathematical modeling of complex systems with applications to bio-medicine, physics and the technology of materials”** (MACOMSYS), 2012-2013;
Coordinator: Prof. T. Bountis, Nazarbayev University, Republic of Kazakhstan;
Funding: Greek Ministry of Education and E.U./European Social Fund, Operational Program ”Education and Life-Long Learning (EDULLL)”
Call: ”Thales”;
Budget: 600,000 euro;
Role: External Research Team Member.
8. **”Analytical and Numerical Electromagnetism with Applications in Photonics and Nanodevices (ANEMOS)”**, 2012 – 2013;
Coordinator: Prof. K. Hitzanidis, Department of Electrical and Computer Engineering, National Technical University of Athens (NTUA);
Funding: Greek Ministry of Education and E.U./European Social Fund, Operational Program ”Education and Life-Long Learning (EDULLL)”
Call: ”Thales”;
Budget: 600,000 euro;
Role: Collaborator of the Research Team.
7. **”Strong THz radiation and cross-disciplinary applications”** (FTERA), 2013 – 2016;
Coordinator: Prof. S. Tzortzakis, Institute of Electronic Structure and Lasers, FORTH & University of Crete, Greece;
Funding: co-funded by the European Social Fund (ESF) and National Resources;

- Call:* ARISTEIA Action of the Operational Programme "Education and Life-long Learning (EDULLL)";
Role: Researcher, from February 01, 2013, to August 31, 2013.
6. **"Emergent complexity in electronically frustrated correlated electron systems"**, 2007 – 2012;
Coordinator: Prof. C. Panagopoulos, Nanyang Technological University, Singapore;
Funding: European Commissions Framework Programme 6, European Science Foundation;
Call: "EURYI 3rd CALL AWARD";
Budget: 1,190,000 euro;
Role: Researcher, from February 1, 2009 to January 31, 2013.
 5. **"Archimedes - Strengthening the research groups of TEI of Crete"**,
Funding: Hellenic Ministry of National Education and Religious Affairs through operational Programme for Education and Primary Vocational Training (EPEAEK): "*Optical radiation and polymeric materials*" (Code number MIS 86384).
Role: Researcher, from June 1, 2007 to August 31, 2007.
 4. **"PYTHAGORAS II"**, 2005-2007;
Coordinator: Prof. G. P. Tsironis, University of Crete, Greece;
Funding: co-funded by the European Commission and the Hellenic Ministry of National Education and Religious Affairs through Operational Programme for Education and Primary Vocational Training (EPEAEK II): "*Experimental and theoretical study of intrinsic localized oscillations in Si cantilever arrays*" (Code Number 2102);
Budget: 49,479 euro;
Role: Researcher, from July 1, 2005 to June 30, 2006.
 3. *Operational Programme:* **"Education and Primary Vocational Training"** (EPEAEK II),
Coordinator: Prof. G. Tziritas, University of Crete, Greece;
Funding: co-funded by the European Union and the Hellenic Ministry of National Education and Religious Affairs: "*EPEAEK - Undergraduate studies programmes - Development of teaching material*" (Code Number 1062);
Budget: 472,085 euro;
Role: Researcher, from August 1, 1998 to February 28, 1999.
 2. **"Program for the Reinforcement of the Research Staff"** (PENED),
Coordinator: Prof. M. Vavalis, University of Thessaly, Greece;
Funding: Hellenic Ministry of Development, General Secretariat for Research and Technology (GSRT): "*Software development for the numerical integration of partial differential equations in parallel distributed systems*" (Code Number 722).
Budget: 29,347 euro;
Role: Researcher, from October 1, 1997 to May 31, 1998.
 1. **"Program for the Reinforcement of the Research Staff"** (PENED),
Coordinator: Prof. Emeritus N. Flytzanis, University of Crete, Greece;
Funding: Hellenic Ministry of Development, General Secretariat for Research and Technology (GSRT): "*Coupling of superconducting junctions on dielectric substrates*" (Code Number

719).

Budget: 23,478 euro;

Role: Researcher, from June 24, 1996 to June 23, 1998.

0. **”Program for the Reinforcement of the Research Staff”** (PENED),

Coordinator: Prof. Emeritus N. Flytzanis, University of Crete, Greece;

Funding: Hellenic Ministry of Development, General Secretariat for Research and Technology (GSRT): *”Superconducting (Josephson) junctions”* (Code Number 459).

Budget: xx,yyy euro;

Role: Researcher, from October 1, 1993 to September 30, 1995.

D. Research Visits (in reverse chronological order)

- Six (6) Research Visits at the National University of Research & Technology ”MISiS”, The Lab of Superconducting Metamaterials, Moscow, Russia, June 01 - June 30, 2018; February 17 - March 19, 2018; June 01 - June 30, 2017; March 05 - May 02, 2017; November 19 - December 18, 2016; March 26 - April 08, 2016;
hosted by Prof. Dr. Alexey V. Ustinov.
- Research Visit at the School of Science & Technology (SST), Department of Physics, Nazarbayev University (NU), Astana, Republic of Kazakhstan, December 05 - 12, 2015;
hosted by Assist. Prof. Aikaterini Mandilara.
- Research Visit at the Centre for Theoretical Physics, New Zealand Institute for Advanced Studies, Massey University, Auckland, New Zealand, December 10 - 21, 2014;
hosted by Prof. Sergej Flach.
- Two (2) Research Visits at the Physikalisches Institut, Karlsruher Institut für Technologie (KIT), Karlsruhe, Germany, February 03-15, 2014; April 18-26, 2013;
hosted by Prof. Dr. Alexey V. Ustinov.
- *Visiting Fellow* at the Nonlinear Physics Centre, Australian National University, Canberra, Australia, January 10 - February 10, 2012;
hosted by Prof. Dr. Yuri S. Kivshar.
- Research Visit at the Atomic Physics Laboratory, University of Belgrade, Vinča Institute of Nuclear Sciences, Belgrade, Serbia, September 25 - October 01, 2007;
hosted by Dr. Ljupčo Hadžievski.

E. Publications

He has co-authored/authored fifty five (55) research articles (+1 submitted) and one (1) review article (in Physics Reports) which have been published in refereed international journals. Of these, he is the first author of twenty six (26) articles including five (5) in which he is the only author. He has also co-authored three (3) invited book chapters, of which he is first author in one (1), and twelve (12) articles in Conference Proceedings Volumes.

(a). Publications in Refereed International Journals (in reverse chronological order)

57. **N. Lazarides** and G. P. Tsironis,
"Flat-band engineering with \mathcal{PT} metamaterials: Compact localized flat-band states",
submitted to Scientific Reports (2018); arXiv:1806.11412.
56. **N. Lazarides** and G. P. Tsironis,
"Superconducting metamaterials",
Physics Reports **752**, 1-67 (2018); doi: 10.1016/j.physrep.2018.06.005.
55. **N. Lazarides** and G. P. Tsironis,
"Multistable dissipative breathers and collective states in SQUID Lieb metamaterials",
Physical Review E **98**, 012207 (2018).
54. J. Hizanidis, **N. Lazarides**, G.P. Tsironis,
"Flux bias-controlled chaos and extreme multistability in SQUID oscillators",
Chaos **28**, 063117 (2018); doi: 10.1063/1.5020949
53. **N. Lazarides** and G. P. Tsironis,
"SQUID Metamaterials on a Lieb lattice: From flat-band to nonlinear localization",
Physical Review B **96**, 054305 (2017).
52. O. V. Shramkova, **N. Lazarides**, A. V. Ustinov, and G. P. Tsironis,
"Electrically and magnetically resonant dc SQUID metamaterials",
Applied Physics A **123**, art. no. 58 (2017).
51. J. Hizanidis, **N. Lazarides**, and G. P. Tsironis,
"Robust chimera states in SQUID metamaterials with local interactions",
Physical Review E **94**, art. no. 032219 (2016).
50. J. Hizanidis, **N. Lazarides**, G. Neofotistos, and G. P. Tsironis,
"Chimera states and synchronization in magnetically driven SQUID metamaterials",
Eur. Phys. J. Special Topics **225**, pp. 1231-1243 (2016).
49. Z. Ivić, **N. Lazarides**, and G. P. Tsironis,
"Qubit lattice coherence induced by electromagnetic pulses in superconducting metamaterials",
Scientific Reports **6**, art. no. 29374 (2016).
48. A. Fraile, E. N. Koukaras, K. Papagelis, **N. Lazarides**, and G. P. Tsironis,
"Long-lived breathers in free-standing graphene",
Chaos, Solitons, & Fractals **87**, pp. 262-267 (2016).
47. **N. Lazarides**, G. Neofotistos, and G. P. Tsironis,
"Chimeras in SQUID metamaterials",
Physical Review B **91**, art. no. 054303 (2015).
46. Th. Oikonomou, A. Nergis, **N. Lazarides**, and G. P. Tsironis,
"Stochastic metastability by spontaneous localization",
Chaos, Solitons & Fractals **69**, pp. 228-232 (2014).

45. D. Psiachos, **N. Lazarides**, and G. P. Tsironis,
 " \mathcal{PT} –Symmetric Dimers with Time-Periodic Gain/Loss Function",
 Applied Physics A **117**, pp. 663-672 (2014).
44. G. P. Tsironis, **N. Lazarides**, and I. Margaritis,
 "Wide-band tuneability, nonlinear transmission, and dynamic multistability in SQUID meta-
 materials",
 Applied Physics A **117**, pp. 579-588 (2014).
43. G. P. Tsironis and **N. Lazarides**,
 " \mathcal{PT} –symmetric nonlinear metamaterials and zero-dimensional systems",
 Applied Physics A **115**, pp. 449-458 (2014).
42. **N. Lazarides** and G. P. Tsironis,
 "Multistability and self-organization in disordered SQUID metamaterials",
 Superconductor Science and Technology **26**, art. no. 084006 (12pp) (2013).
41. A. Maluckov, **N. Lazarides**, G. P. Tsironis, and Lj. Hadzievski,
 "Extreme events in two-dimensional nonlinear lattices",
 Physica D **252**, pp. 59-64 (2013).
40. **N. Lazarides** and G. P. Tsironis,
 "Gain-driven discrete breathers in \mathcal{PT} –symmetric nonlinear metamaterials",
 Physical Review Letters **110**, art. no. 053901 (2013).
39. **N. Lazarides** and G. P. Tsironis,
 "Intrinsic localization in nonlinear and superconducting metamaterials",
 Proceedings of SPIE - The International Society for Optical Engineering **Vol. 8423**, art. no.
 84231K (2012).
38. M. I. Molina, **N. Lazarides**, and G. P. Tsironis,
 "Optical surface modes in the presence of nonlinearity and Disorder",
 Physical Review E **85**, art. no. 017601 (2012).
37. **N. Lazarides**, V. Paltoglou, P. Maniadis, G. P. Tsironis, and C. Panagopoulos,
 "Strain-induced interface reconstruction in epitaxial heterostructures",
 Physical Review B **84**, art. no. 245428 [8 pages] (2011).
36. **N. Lazarides**, V. Paltoglou, and G. P. Tsironis,
 "Nonlinear magnetoinductive transmission lines",
 International Journal of Bifurcation and Chaos **21 (8)**, pp. 2147-2159 (2011).
35. **N. Lazarides**, M. I. Molina, G. P. Tsironis, and Yu. S. Kivshar,
 "Multistability and localization in coupled nonlinear split-ring resonators",
 Physics Letters A **374**, pp. 2095-2097 (2010).
34. **N. Lazarides** and G. P. Tsironis,
 "Driven linear modes: Analytical solutions for finite discrete systems",
 Physics Letters A **374**, pp. 2179-2182 (2010).

33. T. E. Dialynas and **N. Lazarides**,
"Radiation Damping Force - an Alternative Proposal",
 Chinese Journal of Physics **48 (2)**, 157-168 (2010).
32. **N. Lazarides**, M. I. Molina, and G. P. Tsironis,
"Breathers in one-dimensional binary metamaterial models",
 Physica B **405 (14)**, pp. 3007-3012 (2010).
31. **N. Lazarides**, M. I. Molina, and G. P. Tsironis,
"Breather induction by modulational instability in binary metamaterials",
 Acta Physica Polonica A **116 (4)**, pp. 635-637 (2009).
30. M. I. Molina, **N. Lazarides**, and G. P. Tsironis,
"Bulk and surface magnetoinductive breathers in binary metamaterials",
 Physical Review E **80 (4)**, art. no. 046605 (2009).
29. M. Eleftheriou, **N. Lazarides**, G. P. Tsironis, and Yu, S. Kivshar,
"Surface magnetoinductive breathers in two dimensional magnetic metamaterials",
 Physical Review E **80 (17)**, art. no. 017601 (2009).
28. Z. Radovic, V. Paltoglou, **N. Lazarides**, and N. Flytzanis,
"Resonant effects in ballistic Josephson Junctions",
 European Physical Journal B **69 (2)**, pp. 229-236 (2009).
27. G. P. Tsironis, **N. Lazarides**, and M. Eleftheriou,
"Dissipative breathers in rf SQUID metamaterials",
 PIERS Online **5 (1)**, pp. 26-30 (2009).
26. A. Maluckov, Lj. Hadzievski, **N. Lazarides**, and G. P. Tsironis,
"Extreme events in discrete nonlinear lattices",
 Physical Review E **79 (2)**, art. no. 025601(R) (2009).
25. **N. Lazarides**, G. P. Tsironis, and M. Eleftheriou,
"Dissipative discrete breathers in rf SQUID metamaterials",
 Nonlinear Phenomena in Complex Systems **11 (2)**, pp. 250-258 (2008).
24. **N. Lazarides**, G. P. Tsironis, and Yu. S. Kivshar,
"Surface breathers in discrete magnetic metamaterials",
 Physical Review E **77 (6)**, art. no. 065601(R) (2008).
23. A. Maluckov, Lj. Hadzievski, **N. Lazarides**, and G. P. Tsironis,
"Left-handed metamaterials with saturable nonlinearity",
 Physical Review E **77 (4)**, art. no. 046607 (2008).
22. E. Georgiou, **N. Lazarides**, O. Musset, and J. P. Boquillon,
"Effects of pulse timing parameters on bulk Erbium laser operation in the eye-safe region",
 Proceedings of SPIE - The International Society for Optical Engineering **Vol. 6998**, art. no. 69980S (2008).
21. M. Eleftheriou, **N. Lazarides**, and G. P. Tsironis,
"Magnetoinductive breathers in metamaterials",
 Physical Review E **77 (3)**, art. no. 036608 (2008).

20. **N. Lazarides**,
"Mobile π -kinks and half-integer zero-field-like steps in alternating $0 - \pi$ Josephson junction discrete arrays",
 Superconductor Science and Technology **21** (4), art. no. 045003 (2008).
19. I. Kourakis, **N. Lazarides**, and G. P. Tsironis,
"Self-focusing and envelope pulse generation in nonlinear magnetic metamaterials",
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 Selected for the July 2007 issue of the Virtual Journal of Ultrafast Science
 (<http://www.vjulfrafast.org>, Vol. 6, Issue 7).
18. **N. Lazarides** and G. P. Tsironis,
"rf superconducting quantum interference device metamaterials",
 Applied Physics Letters **90** (16), art. no. 163501 (2007).
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 conductivity (<http://www.vjsuper.org>, Vol. 12, Issue 9).
17. **N. Lazarides**, M. Eleftheriou, and G. P. Tsironis,
"Discrete breathers in nonlinear magnetic metamaterials",
 Physical Review Letters **97** (15), art. no. 157406 (2006).
16. **N. Lazarides** and G. P. Tsironis,
*"Coupled nonlinear Schrodinger field equations for electromagnetic wave propagation in non-
 linear left-handed materials"*,
 Physical Review E **71** (3), art. no. 036614 (2005).
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15. **N. Lazarides**,
"Propagation of electromagnetic waves in spatially modulated Josephson junctions",
 Superconductor Science and Technology **18** (1), pp. 73-81 (2005).
14. **N. Lazarides**,
"Critical current and fluxon dynamics in overdamped $0 - \pi$ Josephson junctions",
 Physical Review B **69** (21), art. no. 212501 (2004).
 Selected for the June 15, 2004 issue of the Virtual Journal of Applications of
 Superconductivity (<http://www.vjsuper.org>, Vol. 6, Issue 12).
13. **N. Lazarides**,
*"Numerical versus analytical $I_c(H)$ patterns in Josephson junctions with periodically alternat-
 ing critical current density"*,
 Superconductor Science and Technology **17** (4), pp. 585-591 (2004).
12. **N. Lazarides** and N. Flytzanis,
"Cherenkov steps and strongly deformed fluxons in finite length window junctions",
 Superconductor Science and Technology **17** (1), pp. 202-210 (2004).
11. **N. Lazarides**,
"Josephson junctions with periodic defects: $I_c(H)$ characteristics",
 Physical Review B **68** (9), art. no. 092506 (2003).
 Selected for the September 15, 2003 issue of the Virtual Journal of Applications
 of Superconductivity (<http://www.vjsuper.org>, Vol. 5, Issue 6).

10. Z. Radović, **N. Lazarides**, and N. Flytzanis,
"Josephson effect in double-barrier superconductor-ferromagnet junctions",
 Physical Review B **68 (1)**, art. no. 014501 (2003).
 Selected for the July 15, 2003 issue of the Virtual Journal of Applications of
 Superconductivity (<http://www.vjsuper.org>, Vol. 5, Issue 2).
9. Y. Gaididei, **N. Lazarides**, and N. Flytzanis,
"Fluxons in a superlattice of Josephson junctions: Dynamics and radiation",
 Journal of Physics A: Mathematical and General **36 (10)**, pp. 2423-2441 (2003).
8. Y. Gaididei, **N. Lazarides**, and N. Flytzanis,
"Static fluxons in a superlattice of Josephson junctions",
 Journal of Physics A: Mathematical and General **35 (48)**, pp. 10409-10427 (2002).
7. N. Flytzanis, **N. Lazarides**, A. Chiginev, V. Kurin, and J. G. Caputo,
"Dynamics of fluxons in narrow window junctions",
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6. J. G. Caputo, N. Efraimidis, N. Flytzanis, Y. Gaididei, **N. Lazarides**, I. Moulitsa, and E. Vavalis,
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5. J. G. Caputo, N. Flytzanis, V. Kurin, **N. Lazarides**, and E. Vavalis,
"Effective sine-Gordon model for the static properties of narrow window junctions",
 Journal of Applied Physics **85 (10)**, pp. 7291-7301 (1999).
4. **N. Lazarides** and M. P. Sørensen,
"Gap anisotropy and tunneling currents",
 Mathematics and Computers in Simulation **40 (3-4)**, pp. 271-280 (1996).
3. I. V. Vernik, **N. Lazarides**, M. P. Sørensen, A. V. Ustinov, N. F. Pedersen, and V. A. Oboznov,
"Soliton bunching in annular Josephson junctions",
 Journal of Applied Physics **79 (10)**, pp. 7854-7859 (1996).
2. **N. Lazarides**, T. Schneider, and M. P. Sørensen,
"Multilayer high-temperature superconductors",
 Physica C **210 (1-2)**, pp. 228-234 (1993).
1. P. N. Spathis, M. P. Sørensen, and **N. Lazarides**,
"Perturbed bifurcations in the BCS gap equation",
 Physical Review B **45 (13)**, pp. 7360-7367 (1992).

(b) Dissertation

- **Ph.D. Thesis: "Nonlinearity in Superconductivity and Josephson Junctions"**,
 Department of Informatics and Mathematical Modelling, The Technical University of Denmark,
 IMM-PHD-1995-11, Lyngby, Denmark, 1995.
Advisors: Prof. M.P. Sørensen, Prof. Dr. P.L. Christiansen, Prof. Emeritus N. Flytzanis.

(c) Chapters in Collective Volumes

3. G. P. Tsironis, **N. Lazarides**, A. Maluckov, and Lj. Hadzievski,
"Extreme Events in Nonlinear Lattices",
 Invited Book Chapter, in "Chaos, Information Processing and Paradoxical Games: The Legacy of John S. Nicolis", by Gregoire Nicolis and Vasileios Basios (Eds.) Chapter 3, pp. 43-62 (2015). World Scientific, Singapore, ISBN: 978-981-4602-12-9 , DOI: 10.1142/9789814602136-0003
2. **N. Lazarides** and G. P. Tsironis,
"Nonlinear Localization in Metamaterials",
 Invited Book Chapter, in "Nonlinear, Tunable and Active Metamaterials", by I. V. Shadrivov, M. Lapine, and Yu. S. Kivshar (Eds.), Springer Series in Materials Science **Vol. 200**, pp. 281-301 (2015). Springer International Publishing Switzerland, DOI 10.1007/978-3-319-08386-5 , ISBN: 978-3-319-08385-8
1. G. P. Tsironis, **N. Lazarides**, and M. Eleftheriou,
"Discrete breathers and solitons in metamaterials",
 Invited Book Chapter, in "Nonlinearities in Periodic Structures and Metamaterials", by C. Denz, S. Flach, Yu. S. Kivshar (Eds.) Springer Series in Optical Sciences, **Vol. 150**, pp. 275-289, (2009). Springer-Verlag Berlin Heidelberg, ISBN: 978-3-642-02065-0

(d) Publications in Conference Proceedings Volumes

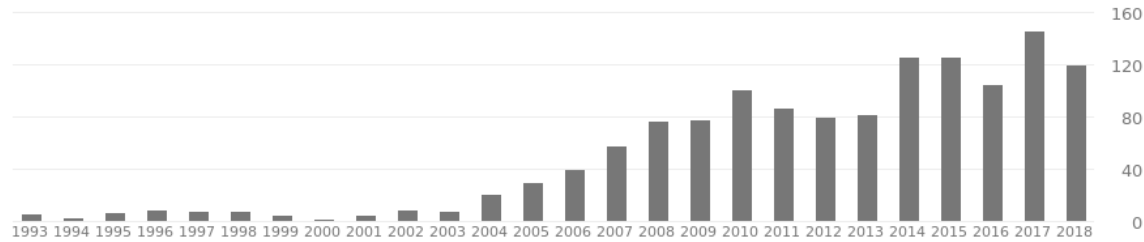
12. **N. Lazarides**, Z. Ivić, and G. P. Tsironis,
"Quantum coherence in a qubit chain induced by electromagnetic pulses",
 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2016, Crete, Greece, 17-22 September 2016. IEEE Xplore-20160304-030740, pp.686-688 (2016); ISBN 978-88-941141-1-9
11. Z. Ivić, **N. Lazarides**, and G. P. Tsironis,
"Light manipulation by quantum metamaterials",
 International Scientific Conference Contemporary Materials, Banja Luka, Republika Srpska, July 3-5, 2014. Contemporary Materials, **V2** (2014), pp. 186-189;
 doi: 10.7251/COMEN1402186I
10. E. Georgiou, **N. Lazarides**, O. Musset, and J. P. Boquillon,
"Pulse timing effects in bulk Er/Yb co-doped diode-pumped eye-safe lasers",
 Lasers and Electro-Optics, 2007 and the International Quantum Electronics Conference. CLEOE-IQEC 2007. European Conference on, Munich, 2007, pp. 1-1. doi: 10.1109/CLEOE-IQEC.2007.4385844
9. Y. Gaididei, N. Flytzanis, and **N. Lazarides**,
"Josephson junction superstructures" (in Greek),
 Ed. K. Paraskevopoulos, Proceedings of the 13th Greek Conference on Solid State Physics, Thessaloniki, Greece, September 21 - 24, 1997, pp. 335-338.
8. J. G. Caputo, N. Flytzanis, V. Kurin, **N. Lazarides**, and E. Vavalis,
"Nonlocality in narrow window Josephson junctions" (in Greek),
 Ed. K. Paraskevopoulos, Proceedings of the 13th Greek Conference on Solid State Physics, Thessaloniki, Greece, September 21 - 24, 1997, pp. 651-654.

7. J. G. Caputo, N. Flytzanis, V. Kurin, **N. Lazarides**, and E. Vavalis,
"Non-local effects in window-type Josephson junctions",
 (Electronic) Proceedings of the International Conference on Solitons and Co-herent Structures in Physics and Biology (SOLPHYS), Lyngby, Denmark, May 30 - June 3, 1997.
<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.47.7602>
6. I. V. Vernik, **N. Lazarides**, M. P. Sørensen, A. V. Ustinov, and N. F. Pedersen,
"Experimental verification of soliton bunching in annular Josephson junctions",
 Institute of Physics Conference Series **148**, pp. 753-756 (1995).
5. **N. Lazarides** and M. P. Sørensen,
"Josephson tunneling in SIS junctions made of anisotropic superconductors",
 Proceedings of the International Conference on Nonlinear Superconducting Devices and High- T_c Materials, Eds. R. D. Parmentier and N. F. Pedersen, Capri, Italy, October 8-13, 1994. World Scientific, Singapore, 1995, pp. 91-99. ISBN 981-02-2091-X
4. M. P. Sørensen and **N. Lazarides**,
"Josephson tunneling and gap anisotropy",
 Proceedings of the 7th International Symposium on Weak Superconductivity (Invited paper). Eds. S. Benacka, P. Seidel and V. Strbik, Smolenice Castle/Bratislava, Slovak Republic, June 6-10, 1994. Dept. of Cryoelectronics, the Institute of Electrical Engineering, Slovak Academy of Sciences, 842 39 Bratislava, Dubravska cesta 9, Slovak Republic, pp. 37-47. ISBN: 80-900506-3-8
3. **N. Lazarides** and M. P. Sørensen,
"Effect of gap anisotropy on the Josephson currents",
 Proceedings of the 3rd IMACS International Conf. on Computational Physics: Nonlinear Dynamical Phenomena in Physical, Chemical and Biological Systems, Eds. P. L. Christiansen and E. Mosekilde, Lyngby, Denmark, August 1-4, 1994. IMACS, Rutgers University, Piscataway, NJ 08855, U.S.A. pp. 160-165.
2. T. Pavlopoulos, **N. Lazarides**, P. L. Christiansen, M. P. Sørensen and P. N. Spathis,
"Nonlinearity in BCS models of high- T_c superconductors",
 Proceedings of the NATO-MIDIT ASI Conference on Future Directions of Non-linear Dynamics in Physical and Biological Systems, Eds. P. L. Christiansen, J. C. Eilbeck, and R. D. Parmentier, Lyngby, Denmark, July 23 - August 1, 1992. Plenum Publishing Corporation, pp. 359-362, 1993. ISBN: 978-1-4899-1609-9
1. T. Pavlopoulos, P. L. Christiansen, M. P. Sørensen, **N. Lazarides**, and P. N. Spathis,
"Numerical study of bifurcations in the BCS gap equation",
 Proceedings of the NATO ASI Conference on Chaotic Dynamics: Theory and Practice, Ed. T. Bountis, Patras, Greece, July 11-20, 1991. Plenum Publishing Corporation, pp. 233-242, 1992. ISBN: 0306442477, 9780306442476

VI. Citations of Published Work (as in October 20, 2018) & Various IDs

Google Scholar Profile at: <http://scholar.google.gr/citations?user=WmQosyYAAAAJ&hl=el&oi=ao>

Citation chart by Google Scholar:



Total Sum of Citations in **Scopus** / **ISI WoS** / **Google Scholar**: 999 / 53 / 1337.

h-Index in **Scopus** / **ISI WoS** / **Google Scholar**: 17 / 17 / 19.

	All	Since 2013
Citations	1337	699
h-index	19	15
i10-index	29	21

This information was obtained from Scopus & ISI Web of Science (All Databases) databases, with search key: lazarides, n & Lazarides N . A citation record could be provided upon request.

Various **IDs**:

ResearcherID: O-4626-2016

ORCID iD: orcid.org/0000-0002-6077-6068

Scopus Author ID: 6701852373

Most Highly Cited Articles (5) in **Scopus** / **ISI WoS** / **Google Scholar**:

- [173 / 171 / 212] **N. Lazarides** and G. P. Tsironis, "Coupled nonlinear Schrödinger field equations for electromagnetic wave propagation in nonlinear left-handed materials", *Physical Review E* **71**, art. no. 036614 (2005).
- [100 / 96 / 122] **N. Lazarides** and G. P. Tsironis, "Gain-driven discrete breathers in \mathcal{PT} symmetric nonlinear metamaterials", *Physical Review Letters* **110**, art. no. 053901 (2013).
- [92 / 92 / 121] Z. Radović, **N. Lazarides**, and N. Flytzanis, "Josephson effect in double-barrier superconductor-ferromagnet junctions", *Physical Review B* **68**, art. no. 014501 (2003).
- [82 / 79 / 108] **N. Lazarides**, M. Eleftheriou, and G. P. Tsironis, "Discrete breathers in nonlinear magnetic metamaterials", *Physical Review Letters* **97**, art. no. 157406 (2006).
- [55 / 49 / 64] **N. Lazarides** and G. P. Tsironis, "rf superconducting quantum interference device metamaterials", *Applied Physics Letters* **90** (16), art. no. 163501 (2007).

VII. Professional Activities

- Active Reviewer for Physical Review A, B, E, & X, Physical Review Letters, Applied Physics Letters, Nature Communications, Scientific Reports, Journal of Applied Physics, Physica Scripta, Journal of the Optical Society of America B, Physica Status Solidi, Journal of Modern Optics, Optics Express, New Journal of Physics, J. Phys.: Condens. Matter, Chaos, Solitons & Fractals.
- Member of the Editorial Board of the Universal Journal of Physics and Application (UJPA, 2013-2016, Horizon Research Publishing).
- Session Chair at "*SPIE Photonics Europe 2012 - Metamaterials Conference*", Brussels, Belgium, 16-19 April, 2012. Session 12: "Magnetic Metamaterials".
- Session Chair at "*META'14 The 5th International Conference on Metamaterials, Photonic Crystals, and Plasmonics*", Singapore, 20-23 May, 2014. Special Session 15: Superconducting and Quantum Metamaterials.
- Organizer of the Special Session SP15: "Superconducting and Quantum Metamaterials" at "*META '14 - The 5th International Conference on Metamaterials, Photonic Crystals, and Plasmonics*", Singapore, 20-23 May, 2014.

VIII. Participation in Conferences - Presentations & Invited Talks

He has delivered twenty five (25) talks in Conferences / Workshops / Meetings / Symposiums, of which **ten (10) were invited**. He has also presented ten (10) research posters.

A. Participation in International Conferences / Workshops / Symposiums

27. *Metamaterials'2016: The 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics*, September 19-22 2016, Platania, Chania, Greece.
Poster: "Quantum coherence in a qubit chain induced by electromagnetic pulses".
26. *Non-Hermitian Photonics in Complex Media: \mathcal{PT} -symmetry and beyond*, June 16-18 2016, Heraklion, Greece.
Invited Talk: "Parity-time symmetric metamaterials".
25. *XXXVI Dynamics Days Europe*, June 06-10 2016, Corfu, Greece.
Invited Talk: "Coherence and decoherence in superconducting metamaterials", in the Minisymposium: "*Nonlinear Waves: Modeling, Methods and Applications*" (MS.12), organized by Y. Kominis, V. Rothos, and T. Bountis.
24. *Quantum Metamaterials 2015 Workshop*, 1-5 June 2015, Spetses, Greece.
Talk: "Multi-chimera states & synchronization - desynchronization transitions in SQUID metamaterials".
23. NZIAS Xmas Symposium on *Complexity in Physics and Chemistry*, 18 December 2014, Auckland, New Zealand; organized by Sergej Flach and Peter Schwerdtfeger.
Invited Talk: "SQUID metamaterials".

22. *CCQCN Conference on: Quantum Field Theory, String Theory and Condensed Matter Physics*, 1-7 September 2014, Kolymbari, Crete, Greece.
21. *SIAM Conference on Nonlinear Waves and Coherent Structures*, August 11-14, 2014, Churchill College, University of Cambridge, United Kingdom.
Invited Talk: "Chimera states in SQUID metamaterials",
in the Minisymposium: "*Nonlinear Waves in Metamaterials: Theory and Applications*", organized by V. Rothos and H. Susanto.
20. *Fourth International Workshop on Statistical Mechanics and Dynamical Systems*, Athens, Greece, July 17-19, 2014.
Invited Talk: "Chimera-like states in SQUID metamaterials".
19. *META'14 The 5th International Conference on Metamaterials, Photonic Crystals, and Plasmonics*, Singapore, 20-23 May, 2014.
Invited Talk: " \mathcal{PT} -symmetric dimers with time-periodic gain/loss function".
18. 3rd European PhD Summer School and Workshop on *Mathematical Modeling of Complex Systems*, Heraklion, Crete, Greece, 15-26 July, 2013.
Invited Tutorial Lecture (2 h duration): "Superconducting metamaterials".
Talk (20'): "Superconducting metamaterials".
17. *SPIE Photonics Europe 2012 - Metamaterials Conference*, Brussels, Belgium, 16-19 April, 2012.
Invited Talk: "Intrinsic localization in nonlinear and superconducting metamaterials".
16. *Photonica 11, III International School and Conference on Photonics*, Belgrade, Serbia, 29 August - 2 September, 2011.
Invited Talk: "Nonlinear superconducting metamaterials".
15. *2nd Greek-Turkish Conference on Statistical Mechanics and Dynamical Systems* "Turunc/Marmaris Rhodos/Symi, 5-12 September, 2010.
Invited Talk: "Spontaneous breather generation in model binary metamaterials".
14. *Photonica 09, II International School and Conference on Photonics*, Belgrade, Serbia, 24-28 August, 2009.
Poster: "Breather induction by modulational instability in binary metamaterials".
13. *ETOPIM 8*, Rethymnon, Crete, 7-12 June, 2009.
Talk: "Bulk and surface breathers in binary metamaterials".
12. *Turkish-Greek Conference on Statistical Mechanics and Dynamical Systems*, Rhodos - Marmaris, 11-17 September, 2008.
Invited Talk: "Dissipative discrete breathers in rf SQUID metamaterials".
11. Workshop on *Nonlinear Physics in Periodic Structures and Metamaterials* (NPPSM07), Dresden, Germany, March 26-30, 2007.
Poster: "Compound envelope solitons in nonlinear left-handed metamaterials".
10. *Dynamic Days Europe 2006*, Heraklion, Greece, September 25-29, 2006.
Talk: "Discrete breathers in nonlinear magnetic metamaterials".

9. *3rd Workshop on Nanosciences and Nanotechnologies (NN06)*, Thessaloniki, Greece, July 10-12, 2006.
Talk: "Discrete breathers in nonlinear magnetic metamaterials".
8. *FPU+50: Nonlinear Waves 50 Years after Fermi-Pasta-Ulam*, Rouen, France, June 20-25, 2005.
Talk: "Compound solitons in nonlinear left-handed materials".
7. *Nonlinearity '99*, Heraklion, Crete, Greece, May 10-15, 1999.
Talk: "Fluxons in a window junction superlattice".
6. *Conference on Complexity and Chaotic Dynamics of Nonlinear Systems*, Thessaloniki, Greece, July 14-25, 1997.
Poster: "Nonlocality in narrow window Josephson junctions".
5. *International Conference on Solitons and Coherent Structures in Physics and Biology (SOL-PHYS)*, Lyngby, Denmark, May 30 - June 3, 1997.
Poster: "Non-Local effects in window type Josephson junctions".
4. *International Conference on Nonlinear Superconducting Devices and High- T_c Materials*, Capri, Italy, October 8-13, 1994.
Talk: Josephson tunneling in SIS junctions made of anisotropic superconductors.
3. *3rd IMACS International Conference on Computational Physics: Nonlinear Dynamical Phenomena in Physical, Chemical and Biological Systems*, Lyngby, Denmark, August 1-4, 1994.
Poster: "Effect of gap anisotropy on the Josephson tunnel currents".
2. *Fourth Nordic Symposium on Superconductivity (4th NSSC)*, Varberg, Sweden, May 25-28, 1994.
Talk: "Effect of gap anisotropy on the Josephson currents".
1. *NATO-MIDIT ASI Conference on Future Directions of Nonlinear Dynamics in Physical and Biological Systems*, Lyngby, Denmark, July 23-August 1, 1992.
Poster: "Nonlinearity in BCS models of high- T_c superconductors".

B. Participation in National Conferences/Meetings

7. *XXIX Panhellenic Conference on Solid-State Physics and Materials Science*, 22-25 September 2013, Athens, Greece.
Talk: "Breathers driven by gain in \mathcal{PT} -symmetric metamaterials.
6. *XXVII Panhellenic Conference on Solid State Physics and Materials Science*, Limassol, Cyprus, September 18 - 21, 2011.
Talk: "Strain-induced interface reconstruction in transition metal oxide heterostructures".
5. *XXIV Panhellenic Conference on Solid State Physics and Materials Science*, Heraklion, Crete, Greece, September 21-24, 2008.
Talk: "Dissipative breathers in rf SQUID arrays".

4. *XVIII Greek Conference on Solid State Physics - Materials Science*, Heraklion, Greece, September 15-18, 2002.
Talk: "Fluxons in a planar array of Josephson junctions: Dynamics and Cherenkov radiation".
3. *13th Greek Conference on Solid State Physics*, Thessaloniki, Greece, September 21-24, 1997.
Talk: "Non-local model of window-type Josephson junctions".
Poster: "Josephson junctions superstructures".
2. *Annual Meeting of the Danish Physical Society*, Odense, Denmark, May 31-June 2, 1995.
Poster: "Two-Band BCS Models for Anisotropic Superconductors".
1. *Annual Meeting of the Danish Physical Society*, Odense, Denmark, June 2-3, 1994.
Poster: "Josephson tunneling currents and anisotropic superconductors".

C. Invited Colloquia and Seminars

4. **Invited talk:** "*SQUID metamaterials: An overview of dynamic properties*" in the seminar "**Taming Complexity in Modern Metamaterials**", organized by Superconducting Metamaterials Laboratory in National University of Science and Technology "MISIS", Moscow, Russia (lecture hall -636 (6th floor)).
Date: Thursday, June 28, 2018.
3. **Seminar talk:** "*Collective States in SQUID Lieb Metamaterials*" at National University of Science and Technology "MISIS", Moscow, Russia. Organized by Superconducting Metamaterials Laboratory/Dr. Andrei Malishevskii.
Date: March 01, 2018, lecture hall -706 (7th floor).
2. **Schmidt seminar on superconductivity (No 18):** "*Quantum coherence in a qubit chain induced by self-induced transparent electromagnetic pulses*", at the Laboratory for Superconducting Metamaterials, National University of Science and Technology "MISIS". The organizers of the seminar, students of V.V. Schmidt: A. A. Golubov, V. V. Ryazanov, A. V. Ustinov.
Date: April 07, 2016
1. **Physics Colloquium talk:** "*Nonlinear excitations in discrete model metamaterials*", at Physics Department, University of Crete, Greece.
Date: Thursday, November 18, 2010 (17:00-18:00, 3rd floor seminar room).