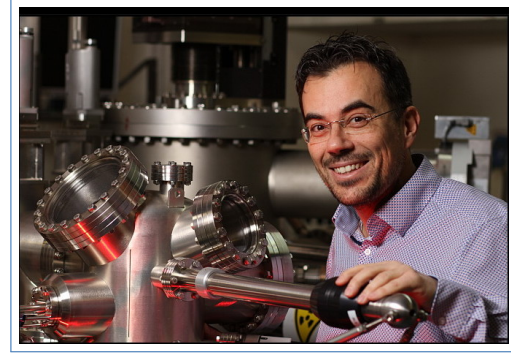


Evangelos Papaioannou

Curriculum Vitae



Personal Data

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Web address: <https://people.auth.gr/epapaioa/>

Web address: <https://www.physics.auth.gr/staff/evangelos-papaioannou/>

Web address: <http://amdelab.physics.auth.gr/members.htm>

Web of Science ResearcherID (Researcher unique identifier): N-7518-2013

Scopus Author ID: 6602129088

ORCID: <https://orcid.org/0000-0002-9822-2343>

Current Position

2023 - now **Assistant Professor**, School of Physics, Faculty of Sciences,
Aristotle University of Thessaloniki, Greece.

Professional Career

- 2019 - 2023 **Faculty member, Permanent Researcher position**, Department of Physics,
Martin-Luther-Universität Halle-Wittenberg, Halle, Germany.
- 2014 - 2019 **Junior (Assistant) Professor**, Department of Physics,
Technische Universität Kaiserslautern, Germany.
- 2012 - 2014 **Senior Researcher** in the group of Prof. Burkard Hillebrands, Dept. of Physics,
Technische Universität Kaiserslautern Kaiserslautern, Germany.
- 2012 **Lecturer** in Division of Materials Science, Dept. of Physics and Astronomy,
Uppsala University, Sweden.

- 2008 - 2011 **Research associate, Post-doc** in the group of Prof. Björgvin Hjörvarsson, Division of Materials Science, Dept. of Physics and Astronomy, Uppsala University, Sweden.
- 2006-2007 **Research fellow** in the group of Prof. Paul Fumagalli, Institut für Experimental Physik, Freie Universität Berlin, Germany.

Education

- 2002-2006 **Ph.D. in Physics**, Department of Physics, Division of Solid State Physics, Aristotle University of Thessaloniki, Greece.
Dissertation title: Correlation of growth and magnetism in new nanomagnetic materials, *Supervisor:* Prof. N. K. Flevaris.

Research Fields

- Interaction of X-rays with nanomaterials (films, multilayers), structural and magnetic scattering.
- Interaction of light and magnetism: Magneto-photonics, magneto-plasmonics, spin-plasmonics of magnetic nanostructures.
- Spin-conversion phenomena at ultrafast timescale (nano-pico-femto second (ns,ps,fs) and on the nanoscale with focus on magneto-optic and magneto-electric conversion effects in solids that are mediated by spin accumulations and pure spin currents. Study of generation of spin currents by spin injection, spin pumping and spin Hall effects (SHEs) like spin Hall effect (SHE), inverse spin Hall effect (ISHE), spin-transfer-torque induced dynamics, magnon spintronics, THz spintronics.
- Materials science with focus on epitaxial growth of thin films and multilayers by molecular beam epitaxy (MBE) and sputtering techniques.

- Methods for magnetic and structural characterization of patterned structures. Expertise in techniques like Magneto-optical Kerr effect (MOKE), Ferromagnetic resonance (FMR), Vibrating and SQUID magnetometry (VSM, SQUID), magnetic force microscopy (MF), X-rays diffraction/reflection techniques (XRD, XRR), Synchrotron techniques like resonant magnetic circular/linear dichroism (XMCD, XLMD) and reflectivity (XRMS), electron surface diffraction techniques (LEED, RHEED), Brillouin light scattering (BLS), Terahertz time domain spectroscopy (THz-TDS).

Summary of Publications and Presentations in national and International Conferences

Publications Total **96**.

- Peer-reviewed articles in international journals: **83**
- Peer-reviewed conference proceedings: **11**
- Book chapters: **2**

h-index h-index: **30**, i10-index: **51** (Source: <https://scholar.google.de>, last updated March 2026)

h-index h-index: **25**, (Source: scopus.com, last updated March 2026)

h-index h-index: **25**, (Source: webofscience.com, last updated March 2026)

Cited Cited in **1741** documents, (Source: scopus.com, last updated March 2026)

Citations **2379** Citations, (Source: scopus.com, last updated March 2026)

Conferences 70 oral contributions to international conferences and workshops, including 29 invited talks, 6 invited seminars, 35 contributed talks.

Summary of Teaching activities: Lectures, Supervision, Skills

University Bachelor courses

- Crystallography-Structure of Mater Laboratory (Aristotle University, Winter Semester(WS) 2025-26, WS 2024-25, WS 2023-24).
- Magnetic Materials and Applications (Aristotle University, Summer Semester(SS) 2026, WS 2025, WS 2024).
- Electronic Praktikum (Halle University, Winter Semester(WS) 2021-22, WS 2022-23).
- Nuclear Physics (Halle University, Summer Semester (SS) 2020, SS 2021, SS 2022).
- Solid State Physics (Halle University, Winter Semester (WS) 2022-2023, WS 2021-2022, WS 2020-2021, WS 2019-2020).
- Nanotechnology I (Technical University of Kaiserslautern, Summer Semester (SS) 2019, SS 2018, SS 2017, SS 2016, SS 2015).
- Nanotechnology II (Technical University of Kaiserslautern, Winter Semester (WS) 2018-2019, WS 2017-2018, WS 2016-2017, WS 2015-2016).
- Magnetophotonics and magneto-optical spectroscopy (Technical University of Kaiserslautern, Summer Semester (SS) 2015, Winter Semester (WS) 2015-2016, SS 2016, WS 2016-2017, SS 2017, WS 2017-2018, SS 2018).
- Advanced experimental methods for magnetic and structural characterisation of magnetic nanostructures (Technical University of Kaiserslautern, Summer Semester 2018).
- Magnetism and light (Technical University of Kaiserslautern, Winter Semester (WS) 2018-2019, Summer Semester (SS) 2019).
- Magnonics (Technical University of Kaiserslautern, Winter Semester (WS) 2018-2019).

University Master courses

- Magnetic properties of materials and technological applications (Master Program: Advanced Materials, Aristotle University, Winter Semester (WS) 2025-2026).
- Electron microscopy and diffraction of X-rays in materials science (Master Program: Advanced Materials, Aristotle University, Winter Semester (WS) 2023-2024, WS 2025-2026).
- Nano-fabrication and nano-processes (Master Program: Nanoscience and Nanotechnology, Aristotle University, Winter Semester (WS) 2025-2026, WS 2024-2025, WS 2023-2024).
- Optoelectronic and Microelectronic devices (Master Program: Advanced Materials, Aristotle University, Summer Semester (SS) 2026).

Students Supervision

Currently (March 2026), I am the **main supervisor** of 5 Master Students at the School of Physics, Aristotle University:

- Stavros Papageorgiou,
- Maria Papadopoulou,
- Kostantinos Laftsidis,
- Maria Gitsou,
- Zoi Tziatziouli.

I have supervised as the **main Ph.D. supervisor** 2 Ph.D. students:

- Dr. Laura Scheuer (at Department of Physics, Technical University Kaiserslautern (TU KL), Germany, 2019-2024, Dissertation in February 2024) and
- Dr. Sascha Keller, (at Department of Physics, TU KL Kaiserslautern, Germany, 2014-2018), Dissertation in October 2018).

I served as **co-supervisor** for 3 Ph.D. students:

- Dr. Dimitrios Anyfantis (Patras University, Patras, 2023),
- Dr. Dimitrios Karfaridis, (Aristotle University, 2022)),
- Dr. Emil Melander (Uppsala University, 2016).

I have **supervised** three Post Doc researchers:

- Dr. Spyridon Pappas (TU Kaiserslautern, 2016-2019),
- Dr. Sascha Keller (TU Kaiserslautern, 2019),
- Dr. Laura Scheuer. (TU Kaiserslautern (2024).

I have supervised as the **main supervisor** 4 Master works:

- Jochen Greser (TU KL 2016),
- Laura Mihalceanu (TU KL 2016),
- Laura Scheuer (TU KL 2018),
- Philipp Lang (TU KL 2018).

I have **co-supervised** 5 Master Thesis:

- Ellen Wiedemann (TU KL 2017),
- Moritz Ruhwedel (TU KL 2019),
- Nikolaos Kanistras, (Patras University 2021),
- Emil Melander (Uppsala University 2012),
- Erik Ostman (Uppsala University 2012).

I have supervised as the **main supervisor** 1 Bachelor thesis:

- Ulac Oren(TU KL 2017).

Teaching Skills

Teaching Competence

- Pedagogical Education** Course: Supervising PhD Students, Summer semester 2012, Division for Development of Teaching and Learning, Uppsala University (UU). The course is mandatory for teaching positions at Uppsala University and certifies the pedagogical competence.
- Pedagogical Education** Course: Teaching Training Course, Winter Semester 2010, Division for Development of Teaching and Learning, Uppsala University. The course is mandatory for teaching positions at Uppsala University.
- Teaching activities TU** Main responsible from Technische Universität Kaiserslautern for the design and the realization of new Demonstrators of magnetism for schools and universities in the framework of the European Project: Program INTERREG IVA-Großregion: Greater Region Magnetism Network, (GRMN), 2012-2014.
Responsible for Schülerlabor, Schülerinnentag 2013 events in terms of experiments with magnetism-in collaboration with Prof. A. Kuhn and A. Fleischhauer (TU Kaiserslautern).
- Teaching profile** Due to the large number of supervised students my teaching experience spans among students of diverse ages, mentalities, cultures, nationalities, genders, and scientific interests, and it has been very important for the development of my general approach to teaching.

Third-party funds as a Principal Investigator

The following projects that I have applied for, have been financed:

- EPICUR** ○ Call: EPICUR seed funding, European Union. The project that I am part of under the title:“Namasute, Nano-optics and magnonics for sustainable technologies” was financed after evaluation for the years 2025-2026.
- Support to young Profs-AUTH** ○ Call: Strengthening the Research Activity of new appointed Assistant and Associate Professors, Aristotle University. My research proposal under the title:“Spin Homojunctions for Terahertz broadband communications” was financed after evaluation for the year 2024.
- IKYDA-DAAD** ○ PPP-IKYDA 2020 DAAD bilateral German-Greek Collaboration scheme. My proposal under the title:“Antiferromagnetic spintronics” was financed for the period of 2 years 2020-2021. Due to Corona pandemic the project was prolonged up to 2022.

- Carl Zeiss ○ Holder of a Carl Zeiss support program for young scientists: Magnetic Heterostructures. The project was funded for the period of 15.07.2014-31.12.2018.
- Nachwuchsring ○ Nachwuchsring Research Funding, Technical University of Kaiserslautern.
TUKL Project: Spin Hall nanooscillators for neuron networks. My project was funded for the year 2017.
- Nachwuchsring ○ Call: Promotion of young talents, financed by the Technical University of
TUKL Kaiserslautern (“Nachwuchsring Projekt”). My proposal under the title: “Spin current manipulation with antiferromagnetic materials” was financed for the period of 1 year (2015).
- IKYDA-DAAD ○ PPP-IKYDA 2015-DAAD bilateral German-Greek Collaboration scheme. My proposal under the title: “Reveal the interface characteristics of spin pumping” was financed for the period of 2 years 2015-2016.
- TUKL ○ Promotion of mobility for research (Mobilitätsförderung Technical University of Kaiserslautern) for the year 2016.
- OPTIMAS ○ Research center OPTIMAS-and Technical University Nachwuchsring individual program to support Master/Diploma students of young researchers. My proposal under the title ‘Terahertz magnonics with antiferromagnetic materials’ was funded in October 2016. This amount was used to hire student assistants.

Editorial work and commissions of trust

Referee for scientific proposals for Deutscher Akademischer Austauschdienst (DAAD), Alexander von Humboldt Foundation, Deutsche Forschungs Gemeinschaft (DFG). **Referee** in the following scientific journals: ACS Applied Materials and Interfaces, Applied Optic Letters, Apl Materials, Applied Physics Letters, Carbon, Corrosion and Materials Degradation, Journal of Applied Physics, Journal of Vacuum Technology A, Journal of Crystal Growth, Materials, Journal of Magnetism and Magnetic Materials, International Journal of Optics, IEEE Transactions on Magnetics, IEEE Magnetic Letters, iScience, New Journal of Physics, Nature Communications, Optical Materials Express, Optic Express, Optic Letters, Optics and Laser Technology, Plasmonics, Physica Status Solidi-Rapid Research Letters (RRL), Physical Review Applied, Physical Review Letters (PRL), Physical Review X (PRX), Scientific Reports, Quantum Technologies.

Prizes and awards and Acknowledgments of my Scientific Work

Carl Zeiss Foundation Stipendium 2014-2019 Holder of a Carl Zeiss Foundation Program: Junior Professorships Program for supporting young scientists.

Greek National Ministry of Education Stipendium 2004-2006 Holder of an 'Hrakteitos' Stipendium for my Ph.D studies from the Greek ministry of Education.

It concerns the publication P.9. Editor's choice in Virtual Journal of Nanoscale Science Technology, February 2007, <http://www.vjnano.org>, as an article of frontier research.

It concerns the publication P.16. Editors' choice in research highlights of the journal Science Vol 323, 9 Jan 2009 under the title: Holey different films. *Link:* <https://www.science.org/doi/10.1126/science.323.5911.187d>

It concerns the publication P.19. Editor's choice in Virtual Journal of Nanoscale Science Technology as an article of frontier research.

Phys. Rev. B 81, 144416 (2010) My contribution is acknowledged in the publication.

It concerns the publication P.22 The article was chosen in the special edition of the journal Physica Status Solidi, special issue 2010 *Best of PSS*.

- It concerns the publication P.27** The video abstract of P.27 has been selected by the editorial team of New Journal of Physics among the six shortlisted for the NJP 2013 Video Abstract Prize because of the innovative way of presenting the work. <https://cms.iopscience.org/b5a48eac-8642-11e2-8cf8-e50acbc9fd86/NJP-Video-Abstracts-Competition-2013.pdf>.
- It concerns the publication P.39** Editors' choice in research highlights of the journal Nature Materials, VOL 13, October 2014, under the title: *Artificial spin rotors*, Link: <https://www.nature.com/articles/nmat4100>.
- It concerns the publication P.51** A press release was issued by the Technical University of Kaiserslautern pointing this work as a Highlighted Research: <https://www.uni-kl.de/en/news/pressemitteilungen/news/detail/News/new-technique-physicists-generate-terahertz-waves-with-spin-current-flow/>
- It concerns the publication P.53** The poster with the title: Wavelength dependence of the THz emission from metallic spintronic emitters presented by my student Laura Scheuer at MSNOWS18, Nancy (France), 25-27.09 2018, was awarded with the prize of the best poster after receiving the majority of votes from the conference participants.
- It concerns the publication P.51** The article was ranked in 100 most read articles in Physics for the year 2018 in Scientific reports as announced by the scientific publisher (Springer-Nature). <https://www.nature.com/collections/afggedgdbj>
- It concerns the publication P.54** The poster with the title: Separation of the two-magnon scattering contribution to damping for the determination of the spin mixing conductance, presented by Dr. Andres Conca, has received a Poster Award at the Symposium of Magnetic Multilayers (MML 2019) in Madrid, Spain.
- It concerns the publication P.70** The poster with the title: THz emission from Fe/Pt spintronic emitters with L10-FePt alloyed interface, presented by Laura Scheuer, has received the best Poster Award at Magnonics 2022, 7th International conference on Magnonics 31.07-04.08.2022, Oxnard, California, USA.
- Awarded Beam time at European Synchrotron Facility, ESRF** My research proposal with the title: Reveal the spin polarization profile in graded spintronic materials for efficient THz emission, was awarded 1 week beam time at ESRF (February 2025) after international competition. Worth to note the level of difficulty of the competition, Greece is not a member of ESRF so greek scientists have no granted access to ESRF.
- It concerns the publication P.83** The article is selected as Featured article. The article is selected as the **cover** article of the journal.

Skills

Organizational Skills

- Dreikönigs Treffen 2019** Co-Organizer of the workshop: Spin-based information processing, 07 – 09 January 2019, Bad-Honnef, Germany.
- 7th Core-to-Core Workshop 2018** Organizer of the workshop CTC York-Tohoku-Kaiserslautern: New concepts for future spintronic devices, 28 – 30 May 2018, Kaiserslautern, Germany.
- Intermag Dublin 2017** Member of the committee for the best student presentation awards at the Intermag in Dublin, 24 – 28 April, Dublin, Ireland.
- 3rd Core-to-Core Workshop 2016** Organizer of the workshop CTC York-Tohoku-Kaiserslautern: New concepts for future spintronic devices, 22 – 24 June 2016, Kaiserslautern, Germany.
- Intermag Dresden 2014** Co-charing the FU poster session, 4 – 8 May, Dresden, Germany.
- International Workshop MAPLA 2014** Symposia Co-Organizer in international workshop on magneto-plasmonics (MAPLA), 17 – 19 February, Uppsala University.
- JEMS 2013** Symposia Organizer in Joint European Magnetic Symposia, 20 – 25 August 2013, Symposium 6: Magnetic recording, sensors and microwave devices.
- 3rd IC4N 2011** Symposia Organizer in 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N), 26 – 29 June 2011, Symposium: NanoMagnetism

Computer Skills

- Languages** MATLAB, Labview.
- Environment** Mac OSX, Windows, Linux.

Language Proficiency

Fluent German, Fluent English, Fluent French, Fluent Swedish.

Memberships in Scientific Societies

- 2014-Present** Member, Deutsche Physikalische Gesellschaft (DPG), Germany
- 2014-2021** Member, IEEE Magnetics Society
- 2014-Present** Member, Deutsche Hochschulverband (DHV), Germany

Collaboration network

The national and international collaboration network that I have established include the following partners:

- Collaboration with the group of Prof. Hillebrands, Technical University Kaiserslautern.
- Collaboration with the group of Prof. Martin Aeschlimann, Technical University Kaiserslautern.
- Collaboration with the group of Prof. Rene Beigang, Technical University Kaiserslautern.
- Collaboration with the group of Prof. Georg von Freymann, Technical University Kaiserslautern, Fraunhofer Institute Kaiserslautern.
- Collaboration with the group of Prof. Jochen Kuhn, Professor in Didactics of Physics, Technical University Kaiserslautern.
- Collaboration with the group of Prof. Hans Christian Schneider, Technical University Kaiserslautern.
- Prof. Jamal Berakdar, Institute of Physics, MLU Halle-Wittenberg, Halle Germany.
- Prof. Georg Schmidt, Institute of Physics, MLU Halle-Wittenberg, Halle Germany.
- Prof. Unnar Arnalds, Science Institute, University of Iceland, Iceland.
- Prof. Björgvin Hjörvarsson, Department of Physics and Astronomy, Uppsala University, Uppsala Sweden.
- Prof. Vassilios Kapaklis, Department of Physics and Astronomy, Uppsala University, Uppsala Sweden.
- Prof. Paul Fumagalli, Institut für Experimentalphysik, Freie Universität Berlin, Berlin, Germany.
- Dr. Antonio García-Martín, IMM-Instituto de Microelectronica de Madrid (CNM-CSIC), Madrid, Spain.
- Prof. Andrei Slavin, Department of Physics, Oakland University, Rochester, USA.
- Prof. John Gregg, Department of Physics, Magdalen College Oxford, Oxford, United Kingdom.
- Prof. Thomas Kehagias, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece.
- Prof. George Vourlias, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece.
- Prof. Makis Angelakeris, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece.
- Prof. Panagiotis Pouloupoulos, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece.
- Assoc. Prof. Marco Battiato, School of Physical and Mathematical Sciences, Nanyang Technological University, Singapore.
- Prof. Atsufumi Hirohata, Department of Electronic Engineering, University of York, United Kingdom.
- Assoc. Prof. Mikihiro Oogane, Department of Physics, University of Tohoku, Sendai, Japan.
- Dr. Alexander Brodyanski, Dr. Joerg Loesch, Institute for Surface and Thin Film Analysis (GmbH Institut für Oberflächen- und Schichtanalytik -IFOS, Kaiserslautern, Germany).

Invited Talks in international Conferences and Workshops

Invited Talks

- Invited Talk (29)** SPIE Photonics Europe, 12-16 April 2026, Strasbourg, France, Title: *Correlating proximity induced magnetization in ferromagnetic/Pt multilayers with their efficiency to emit THz radiation.*
- Invited Talk (28)** EPICUR NAMASUTE 2nd workshop on nano-optics & magnonics, 28-29 January 2026, Odense, Denmark, Title: *Correlating proximity induced magnetization to the spin-current transport efficiency.*
- Invited Talk (27)** EPICUR NAMASUTE 1st workshop on nano-optics & magnonics, 30 June -01 July 2025, Strasbourg, France, Title: *Ultrafast spin-to-charge current conversion and THz emission in magnetic/nonmagnetic heterostructures.*
- Invited Talk (26)** XII Ultrafast Dynamics and Metastability & Ultrafast Bandgap Photonics 11-18 June 2025, Chersonissos, Crete, Greece, Title: *Enhanced spin-to-charge conversion at graded ferromagnetic/nonmagnetic interfaces.*
- Invited Talk (25)** XXXVIII Panhellenic Conference on Solid State Physics & Materials Science, Ioannina, Greece, 15-18 September 2024, Title: *Ultrafast spin currents and applications.*
- Invited Talk (24)** SPIE Optics+Photonics San Diego 18-22 August 2024, San Diego, USA, Title: *Materials engineering of spintronic THz emitters.*
- Invited Talk (23)** XI Ultrafast Dynamics and Metastability & Ultrafast Bandgap Photonics 16-21 June 2024, Chersonissos, Crete, Greece, Title: *Materials engineering of THz emission from spintronic emitters.*
- Invited Talk (22)** Spice Workshop THz spintronics: toward terahertz spin-based devices, Ingelheim, Germany, 10-12 October 2023, Title: *Spin and charge current dynamics in THz spintronic emitters.*
- Invited Talk (21)** X Ultrafast Dynamics and Metastability & Ultrafast Bandgap Photonics 2023 Conference, 4-10 June 2023, Chersonissos, Crete, Greece, Title: *Spin and charge current dynamics in THz spintronic emitters.*
- Invited Talk (20)** 7th International Workshop of Materials Physics, 31 of August-2 of September 2022, Bukarest, Roumania, Title: *Novel broadband and efficient THz radiation sources based on spintronic structures.*
- Invited Talk (19)** VII Ultrafast Dynamics and Metastability & Ultrafast Bandgap Photonics 2022 Conference, 6-10 June 2022, Chersonissos, Crete, Greece Title: *Spin Current Dynamics in Ferromagnetic Non-Magnetic Bilayers Probed with GHz- and THz-Spectroscopy.*

- Invited Talk** Habilitation talk, 8 July 2021, Institute of Physics, MLU Halle-Wittenberg,
(18) Title: *Ultrafast spin currents and charge conversion at interfaces probed by THz and GHz spectroscopy.*
- Invited Talk** SPIE Optics + Photonics 2020 San Diego, California, United States, held finally
(17) on-line from 23 - 27 August 2020, Title: *Correlation of spin current transport in THz spintronic emitters with spin mixing conductance in spin pumping experiments.*
- Invited Talk** 710. WE-Heraeus-Seminar on Spin Transport in Complex Magnetic Structures)
(16) Bad Honnef, Germany, 08 - 10 January 2020, Title: *Defect engineering of spintronic terahertz emitters.*
- Invited Talk** 10th International Conference on Metamaterials, Photonic Crystals and Plas-
(15) monics (META19) Lisbon, Portugal, 23 - 26 July 2019, Title: *Magneto-plasmonic interaction in Bi:YIG/Au nanostructures.*
- Invited Talk** York-Tohoku-Kaiserslautern Core-to-Core Symposium 11 - 13 June 2019, York,
(14) England, Title: *Revealing the Coupling Mechanism of Plasmonic and Magneto-Optically Induced Near-Fields in Bi:YIG/Au nanostructures.*
- Invited Talk** 6th International Conference from Nanoparticles and Nanomaterials to Nanode-
(13) vices and Nanosystems (6th IC4N), 2019, Corfu, Greece, 30 June - 3 July 2019, Title: *Perspectives of THz spintronic emitters.*
- Invited Talk** Ultrafast Bandgap Photonics, Georgetown University, Washington, USA, 15 - 17
(12) April 2019, Title: *Efficient THz generation of spintronic emitters based on defect engineering.*
- Invited Talk** Magnetofon conference, Les Houches, France, 11 - 15 February 2019, Ti-
(11) tle: *Roadmap for efficient THz generation from metallic spintronic emitters.*
- Invited Talk** 9th International Conference on Metamaterials, Photonic Crystals and Plasmonics
(10) (META18) Marseille, France, 24 June - 01 July 2018, Title: *Magneto-plasmonic metamaterials.*
- Invited Talk** Nanomagnonics, Villa Denis, Kaiserslautern 19-21.02 2018, Title: *Optimization*
(9) *of metallic spintronic THz emitters.*
- Invited Talk** Euromat 2017, Thessaloniki, Greece, 17th - 22nd September 2017, Title: *Magneto-*
(8) *plasmonic metamaterials.*
- Invited Talk** 8th International Conference on Metamaterials, Photonic Crystals and Plasmonics
(7) (META17) Incheon, Seoul, South Korea, 25th - 28th July 2017, Title: *Magnon-plasmon interaction in YIG/Au nanostructures.*
- Invited Talk** York-Tohoku-Kaiserslautern Core-to-Core Symposium 21st to 23rd June 2017,
(6) York, England, Title: *Efficient THz emission from Fe/Pt epitaxial bilayers.*

- Invited Talk (5)** in MMM New Orleans, USA, Oct 31th -Nov 04th 2016, Title: *Magneto-plasmonic metamaterials*.
- Invited Talk (4)** in Sol-SkyMag conference, 26 - 30 June 2016, San Sebastain, Gipuzkoa, Spain, Title: *Evolution of magneto-plasmonic interactions in Ni nanostructures: from islands to holes*.
- Invited Talk (3)** in 3rd Core-to-Core Workshop York-Tohoku-Kaiserslautern, New concepts for future spintronic devices, 22-24 June 2016, Kaiserslautern, Title: *The concept of a magneto-plasmonic meta-material*.
- Invited Talk (2)** in 2nd Core-to-Core Workshop York-Tohoku-Kaiserslautern, 17-18 November 2015, Sendai, Japan, Title: *Reveal the role of interface on the spin pumping effect in Fe/Pt and Fe/MgO/Pt layered systems*.
- Invited Talk (1)** in International workshop on Magneto-plasmonics, 06-08.02 2014, Uppsala, Sweden, Title: *Use of magnetic materials in the direction of active plasmonics*

Invited Seminars

- Invited Seminar (6)** in the Master program of Physics & Technology of Materials, Department of Physics, Aristotle University of Thessaloniki, 7 May 2025, Title: *Ultrafast spin currents and applications*.
- Invited Seminar (5)** Students Conference AfterPath, KEDEA Building, Aristotle University of Thessaloniki, 07 April 2024, Title: *Is there future for students in Physics?*
- Invited Seminar (4)** in the Master program of Physics & Technology of Materials, Department of Physics, Aristotle University of Thessaloniki, 24 April 2023, Title: *The promise of spintronics*.
- Invited Seminar (3)** in the Master program of Physics & Technology of Materials, Department of Physics, Aristotle University of Thessaloniki, 30 March 2015, Title: *Interplay of surface plasmons and magnetism in patterned magnetic materials*.
- Invited Seminar (2)** in AG-Prof. U. Hartmann, Saarbrücken, 21.11.2014, Title: *Epitaxial magnetic bilayers for spin dynamics and magneto-plasmonic research*.
- Invited seminar (1)** in the group of Prof. Johan Akerman, Kungliga Tekniska högskolan (KTH) Stockholm, 22 October 2009, Title: *Magnetic Properties of Ultra-thin and Patterned Films*.

Contributed Talks

2016-present

- Contributed Talk (35)** 12th International Symposium on Metallic Multilayers (MML), 13-18 July 2025 University of Leeds, Leeds, UK, Title: *Ultrafast spin-to-charge current conversion and THz emission in graded alloyed interfaces*

- Contributed Talk* (34)** in DPG Spring Meeting Dresden, 27-31 March 2023, Dresden, Germany, Title: *Impact of the magnetic layer crystal growth optimization on the THz emission from spintronic Fe/Pt emitters* (*) scientific responsible for the presentation, presented by my Phd student Laura Scheuer
- Contributed Talk* (33)** in 64th Annual Conference on Magnetism and Magnetic Materials, November 4-8, 2019, Las Vegas, NV, USA, Title: *Enhanced Performance of Spintronic Terahertz Emitters Based on Defect Engineering*. (*) scientific responsible for the presentation, presented by my Phd student Laura Scheuer.
- Contributed Talk* (32)** in DPG Spring Meeting Regensburg, 1-5 April 2019, Regensburg, Germany, Title: *Roadmap of efficient metallic THz spintronic emitters*. (*) scientific responsible for the presentation, presented by my Phd student Laura Scheuer.
- Contributed Talk* (31)** in Core-to-Core Workshop York-Tohoku-Kaiserslautern, 10 - 12 January 2019, Title: *Thickness dependence of THz emission from metallic spintronic emitters*. (*) scientific responsible for the presentation, presented by my Phd student Laura Scheuer.
- Contributed Talk (30)** in International Conference on Magnetism, ICM2018, San Francisco, USA, 15-20 July 2018, Title: *Efficient Spintronic THz Emitters Based on the Excitation Energy, Crystal Structure and Multilayer Stacking Order*.
- Contributed Talk (29)** in International Conference on Magnetism, ICM2018, San Francisco, USA, 15-20 July 2018, Title: *Enhanced magneto-optical response of 0-D magneto-plasmonic nanostructures*.
- Contributed Talk (28)** in International Conference on Magnetism, ICM2018, San Francisco, USA, 15-20 July 2018, Title: *Spin pumping at the ferromagnetic/paramagnetic phase transition*.
- Contributed Talk (27)** in 61st INTERMAG, 24-28 April 2018, Singapore, Singapore Title: *Optimize the THz radiation from Fe/Pt metallic spintronic emitters*.
- Contributed Talk (26)** in DPG Spring Meeting Berlin, 11-15 March 2018, Title: *Influence of the electron scattering lifetime onto THz-spintronic experiments*.
- Contributed Talk* (25)** in DPG Spring Meeting Berlin, 11-15 March 2018, Title: *Anomalous Kerr Effect in hybrid Bi-YIG/Au magneto-plasmonic nanostructures*, (*) scientific responsible for the presentation, presented by my group member Spyridon Pappas
- Contributed Talk (24)** in SPIN+X TRR 173 Workshop, Spin in its collective environment, Bad Dürkheim, Germany, 1-3 March 2018, Title: *Surface Plasmons in Magnetic Materials*.

- Contributed** in 62nd Annual Conference on Magnetism and Magnetic Materials (MMM),
Talk* (23) Pittsburg, USA, 06-11 Nov. 2017, Title: *Enhanced magneto-optical response in Bi-YIG films induced by localized surface plasmons*, (*) scientific responsible for the presentation, talk given by my group member Spyridon Pappas.
- Contributed** in 62nd Annual Conference on Magnetism and Magnetic Materials Pittsburg
Talk* (22) (MMM), USA, 06-11 Nov. 2017, Title: *Efficient Spintronic Terahertz Emitters based on Epitaxial Grown Fe/Pt Layer Structures*, (*) scientific responsible for the presentation, talk given by my Phd student Sascha Keller.
- Contributed** in MBE Workshop, Vienna, Austria, 28-29 Sept. 2017, Title: *MBE epitaxial*
Talk (21) *grown Fe/Pt bilayers for the optimization of inverse spin Hall effect and of THz emission*
- Contributed** in Core to Core Workshop, York, 21-23 June 2017, Title: *Efficient Spintronic*
Talk (20) *Terahertz Emitters based on Epitaxial Grown Fe/Pt Layer Structures*
- Contributed** in DPG Spring Meeting Dresden, 19-24 March 2017, Title: *The role of epitaxy on*
Talk* (19) *spin pumping revealed in Fe/NM (Pt, Pd, Au) systems*, (*) scientific responsible for the presentation, talk given by my Phd student Sascha Keller.
- Contributed** in SPIN+X TRR 173 Workshop, Spin in its collective environment, Bad
Talk (19) Dürkheim, Germany, 28.2-2.3 2017, Title: *Coupling between collective electron charge and electron spin excitations*
- until 2016**
- Contributed** in MMM New Orleans, USA, Oct 31th - Nov 04th 2016, Title: *The role of*
Talk* (18) *magnetic anisotropy on spin pumping revealed in epitaxial Fe/NM (Pt, Pd, Au) systems*, (*) scientific responsible for the presentation, talk given by my Phd student Sascha Keller.
- Contributed** DPG Spring Meeting Regensburg, March 06th - 11th 2016, Title: *Investigation*
Talk* (17) *of the spin pumping effect in epitaxially grown Fe/MgO/Pt systems*, (*) scientific responsible for the presentation, talk given by my Master student Laura Mihalceanu.
- Contributed** in 8th Joint European Magnetic Symposia (JEMS 2016), 21-26 August 2016,
Talk (16) Glasgow, UK, Title: *Light localization and magneto-optic enhancement in magnetoplasmonic meta-structures*.
- Contributed** in INTERMAG 2015, Beijing, China, 11th - 15 May 2015, Title: *Thickness*
Talk (15) *dependence of the magneto-plasmonic enhancement*.
- Contributed** in 3rd German-Russian-Swedish Workshop on Ordering and Dynamics in Mag-
Talk netic Nanostructures, 15-17 September 2014, Schloß Maurach, Germany, Title: *Interface engineering of the inverse spin Hall effect*.

- Contributed** in MSNOW Nanomaterials 2014-GRMN Conference, Nancy, 08-11 Sept 2014,
Talk(14) Title: *Influence of magnetic field on the plasmonic excitations in patterned magnetic films.*
- Contributed** in Deutsche Physikalische Gesellschaft (DPG) Spring Meeting 2014, Dresden,
Talk (13) Germany, 31 March - 3 April 2014, Title *Spin-pumping induced inverse spin Hall effect at Fe/Pt interfaces*
- Contributed** in 58th Annual Conference on Magnetism and Magnetic Materials (MMM),
Talk (12) Denver, Colorado, United States, 4 – 8 November 2013, Title: *Manipulating spin pumping and inverse spin Hall effect with crystal structure in Fe/Pt bilayers*
- Contributed** in Deutsche Physikalische Gesellschaft (DPG) Spring Meeting 2013, Regensburg,
Talk (11) Germany, 10 – 15 March 2013 Title: *Magneto-plasmonic properties of Ni anti-dot nano-arrays in the presence of an external magnetic-fiel*
- Contributed** in E-MRS 2012 spring meeting, Congress Center Strasbourg, France, 14 – 18
Talk (10) May 2012, Title: *Enhanced magneto-optical activity and surface plasmons in 2D hexagonal antidot arrays,E-MRS 2012 Spring Meeting, Symposium O : Applied Nanoplasmonics: Nanoplasmonic Functional Materials and Devices*
- Contributed** in 3rd IC4N 2011-3rd International Conference from Nanoparticles and Nanoma-
Talk (9) terials to Nanodevices and Nanosystems (IC4N), Island of Crete, Greece, 26 – 29 June 2011,Title: *Enhanced magneto-optical activity and surface plasmons in 2D hexagonal antidot arrays*
- Contributed** in International Symposium Spin Waves, Ioffe Physical-Technical Institute, St.
Talk (8) Petersburg, Russia, 5 – 11 June 2011, Title: *Magneto-photonic behaviour in 2D hexagonal patterns composed of 3d magnetic metals*
- Contributed** in Workshop on Magnetization Dynamics 2010, Ångström Laboratory, Uppsala,
Talk (7) Sweden, 2 December 2010, Title: *Dimensionality and confinement effects in patterned Pd layers -doped with Fe*
- Contributed** in 2nd Nordic Workshop on Spintronics and Nanomagnetism, Gimo Castle (Gimo
Talk (6) Herrgård), Gimo, Sweden, 7 – 9 May 2010, Title: *Dimensionality and confinement effects in -doped Pd(Fe) layers*
- Contributed** in XXV Panhellenic Conference on Solid State Physics and Materials Science,
Talk (5) Thessaloniki 20 – 23 September 2009, Title: *Magnetic and magneto - optical properties of transition metal films with sub-wavelength antidot arrays*
- Contributed** in Euromat 2007, Nürnberg, Germany 9 – 13 September 2007, Title: *Novel*
Talk (4) *Multilayer Combination of CoCr and Pt with Adjustable Perpendicular Anisotropy*
- Contributed** in Final international workshop on 'Correlation of Structure and Magnetism in
Talk (3) Novel Nanoscale Magnetic Particles', Bonn, Germany, 25 – 29 February 2004, Title: *Magneto-optic measurements in magnetic nanostructures*

- Contributed** in 5th Workshop on 'Correlation of Structure and Magnetism in Novel Nanoscale
Talk (2) Magnetic Particles', Thessaloniki, Greece, 3 – 6 October 2002, Title: *The influence of patterned substrates on structure and magnetism of Co based multilayers*
- Contributed** in XVII Annual Greek Conference of Solid State Physics, Ksanthi, Greece, 6 – 9
Talk (1) September 2001, Title: *Temperature-dependent magnetizations and anisotropies in Pd-Ni multilayers*

Publication list

Book chapters: 2

- **Book Chapter title:** *Magnetoplasmonics in purely ferromagnetic subwavelength arrays*, Spyridon Pappas, **Evangelos Th. Papaioannou**,
21st Century Nanoscience -A Handbook: Nanophotonics, Nanoelectronics, and Nanoplasmonics Volume 6, Chapter 6, edited by Klaus D. Sattler, 2020, CRC Press Taylor & Francis Group.
 Link: <https://doi.org/10.1201/9780429351617>
- **Book Chapter title:** *Spintronic THz Emitters*,
Evangelos Th. Papaioannou, Garik Torosyan, Rene Beigang,
Book Advances in Terahertz Source Technologies, Chapter 6, Jenny Stanford Publishing Pte Ltd, ISBN 9789814968898 , 16 April 2024.
 Link: <https://doi.org/10.1201/9781003459675>

Peer-reviewed Publications in international journals

Peer-reviewed articles: 84

- **P.83:** *Narrowband signal generation by spintronic THz emitters*, Bikash Das Mohapatra, **Evangelos Th. Papaioannou**, and Georg Schmidt,
Appl. Phys. Lett. 128, 092401 (2026).
 Link: <https://doi.org/10.1063/5.0313284>
- **P.82:** *Tunable magnetic properties in compositionally graded L1₀-FePt thin films*, Isaak G Vasileiadis, Dimitrios Karfaridis, Nikolaos Maniotis, Kristina Ignatova, Unnar B Arnalds, George Vourlias, George P Dimitrakopoulos, **Evangelos Th. Papaioannou** and Thomas Kehagias,
J. Phys. D: Appl. Phys. 59 (2026) 025008.
 Link: <https://doi.org/10.1088/1361-6463/ae329a>
- **P.81:** *On chip digital-to-analog converters for ultrafast signals using spintronic terahertz emitters*, Bikash Das-Mohapatra, Nikolaos Kanistras, Arne Busse, **Evangelos Th. Papaioannou** and Georg Schmidt,
Appl. Phys. Lett. 127, 204103 (2025).
 Link: <https://doi.org/10.1063/5.0291032>
- **P.80:** *Enhanced THz Emission From Ultrathin Ta/Fe/Pt Spintronic Trilayers*, **Evangelos Th. Papaioannou**, Laura Scheuer, Garik Torosyan, George P. Dimitrakopoulos, Slawomir Kret, Alina D. Crisan, Ovidiu Crisan, Rene Beigang, and Thomas Kehagias,
Adv. Optical Mater. e00874 (2025).
 Link: <https://doi.org/10.1002/adom.202500874>
- **P.79:** *Structural, Magnetic and THz Emission Properties of Ultrathin Fe/L1₀-FePt/Pt Heterostructures*,

Claudiu Locovei, Garik Torosyan, **Evangelos Th. Papaioannou**, Alina D. Crisan, Rene Beigang and Ovidiu Crisan,

Nanomaterials 15, 1099 (2025).

Link: <https://doi.org/10.3390/nano15141099>

- **P.78:** *Controlling charge dynamics in nanopatterned spintronic terahertz emitters*, Bikash Das-Mohapatra, Reza Rouzegar, **Evangelos Th. Papaioannou**, Tobias Kampfrath, and Georg Schmidt, **Physical Review Applied 23, 014024 (2025).**

Link: <https://doi.org/10.1103/PhysRevApplied.23.014024>

- **P.77:** *Influence of Pt Ultrathin Interlayers on Magnetic Anisotropy in Ni/NiO Multilayers*, Dimitrios I. Anyfantis, Alexandros Barnasas, Nikolaos C. Diamantopoulos, Constantinos M. Tsakiris, Georg Schmidt, **Evangelos Th. Papaioannou** and Panagiotis Pouloupoulos **Micro (2024), 4, 157-169**

Link: <https://doi.org/10.3390/micro4010011>

- **P.76:** *Magnetic Properties and THz Emission from Co/CoO/Pt and Ni/NiO/Pt Trilayers*, Nikolaos Kanistras, Laura Scheuer, Dimitrios I. Anyfantis, Alexandros Barnasas, Garik Torosyan, Rene Beigang, Ovidiu Crisan, Panagiotis Pouloupoulos and **Evangelos Th. Papaioannou**, **Nanomaterials (2024), 14, 215**

Link: <https://doi.org/10.3390/nano14020215>

- **P.75:** *Spin transport and magnetic proximity effect in CoFeB/normal metal/Pt trilayers*, Simon Haeuser, Matthias R. Schweizer, Sascha Keller, Andres Conca, Moritz Hofherr, **Evangelos Th. Papaioannou**, Benjamin Stadtmuller, Burkard Hillebrands, Martin Aeschlimann and Mathias Weiler,

IEEE Transactions on Magnetism XX (2024)

Link: <https://doi.org/10.1109/LMAG.2023.3340122>

- **P.74:** *An optimized growth model for Fe/Pt heteroepitaxy by computational and structural studies*, Dimitrios Karfaridis, Stefanos Giaremis, Thomas Kehagias, Joseph Kioseoglou, **Evangelos Th. Papaioannou** and George Vourlias, **J. Appl. Phys. 134, 065301 (2023)**

Link: <https://doi.org/10.1063/5.0152484>

- **P.73:** *Charge Dynamics in Spintronic Terahertz Emitters*, Georg Schmidt, Bikash Das-Mohapatra and **Evangelos Th. Papaioannou**, **PHYSICAL REVIEW APPLIED 19, L041001 (2023)**

Link: <https://doi.org/10.1103/PhysRevApplied.19.L041001>

- **P.72:** *Magnetic Anisotropies and Exchange Bias of Co/CoO Multilayers with Intermediate Ultrathin Pt Layers*, Dimitrios I. Anyfantis, Camillo Ballani, Nikos Kanistras, Alexandros Barnasas, Ioannis Tsiaoussis, Georg Schmidt, **Evangelos Th. Papaioannou**, and Panagiotis Pouloupoulos, **Anyfantis et al., Materials 16(4), 1378, Feb 7, (2023)**

Link: <https://doi.org/10.3390/ma16041378>

- **P.71:** *Optimum excitation wavelength and photon energy threshold for spintronic terahertz emission from Fe/Pt bilayer*,
Valynn Katrine Mag-usara, Mary Clare Escan, Christopher E. Petoukhoff, Garik Torosyan, Laura Scheuer, Julien Madeo, Jessica Afalla, Miezal L. Talara, Joselito E. Muldera, Hideaki Kitahara, David R. Bacon, Makoto Nakajima, Keshav Dani, **Evangelos Th. Papaioannou**, Rene Beigang, and Masahiko Tani,
Mag-usara et al., iScience 25, 104615, July 15, (2022)
Link: <https://doi.org/10.1016/j.isci.2022.104615>
- **P.70:** *THz emission from Fe/Pt spintronic emitters with L10-FePt alloyed interface*,
Laura Scheuer, Moritz Ruhwedel, Dimitrios Karfaridis, Isaak G. Vasileiadis, Dominik Sokoluk, Garik Torosyan, George Vourlias, George P. Dimitrakopoulos, Marco Rahm, Burkard Hillebrands, Thomas Kehagias, Rene Beigang, and **Evangelos Th. Papaioannou**,
Scheuer et al., iScience 25, 104319 May 20, (2022)
Link: <https://doi.org/10.1016/j.isci.2022.104319>
- **P.69:** *Growth, Magnetic Anisotropies and Exchange Bias of Thin Ni_{0.95}Fe_{0.05}/NiFeO Multilayers*,
Dimitrios I. Anyfantis, Camillo Ballani, Nikos Kanistras, Alexandros Barnasas, Vassilios Kapaklis, Georg Schmidt, **Evangelos Th. Papaioannou** and Panagiotis Pouloupoulos,
Coatings 12, 627, (2022)
Link: <https://doi.org/10.3390/coatings12050627>
- **P.68:** *Steering light with magnetic textures*,
Chioar, Ioan-Augustin, Vantaraki, Christina, Pohlit Merlin, Rowan-Robinson Richard, **Evangelos Th. Papaioannou**, Hjörvarsson Björgvin and Kapaklis Vassilios,
Appl. Phys. Lett. 120, 032407 (2022)
Link: <https://doi.org/10.1063/5.0074391>
- **P.67:** *Probing anisotropy in epitaxial Fe/Pt bilayers by spin-orbit torque ferromagnetic resonance*,
Mohammad Tomal Hossain, Sergi Lendinez,, Laura Scheuer, **Evangelos Th. Papaioannou** and M. Benjamin Jungfleisch,
Appl. Phys. Lett. 119, 212407 (2021)
Link: <https://doi.org/10.1063/5.0071151>
- **P.66:** *Magnetization Reversal and Dynamics in Epitaxial Fe/Pt Spintronic Bilayers Stimulated by Interfacial Fe₃O₄ Nanoparticles*,
Thomas Kehagias, Isaak G. Vasileiadis, Dimitrios Karfaridis, Camillo Ballani, Laura Mihalceanu, Christoph Hauser, George P. Dimitrakopoulos, George Vourlias and **Evangelos Th. Papaioannou**,
Materials 2021,14, 4354.
Link: <https://doi.org/10.3390/ma14164354>
- **P.65:** *Magnetic Aspects and Large Exchange Bias of Ni_{0.9}Co_{0.1}/NiCoO Multilayers*,

Dimitrios I. Anyfantis, Nikos Kanistras, Camillo Ballani, Alexandros Barnasas, Vassilios Kapaklis, Georg Schmidt, **Evangelos Th. Papaioannou**, P. Pouloupoulos,
Micro **2021**,**1**,**43-54**.

Link: <https://doi.org/10.3390/micro1010005>

- **P.64:** *THz spintronic emitters: a review on achievements and future challenges*,
Evangelos Th. Papaioannou, René Beigang,
Nanophotonics **2021**; **10**(4): **1243-1257**.

Link: <https://doi.org/10.1515/nanoph-2020-0563>

- **P.63:** *Effects of Thermal Annealing and Ni Addition on the Magnetic Properties of Co-CoO Multilayers*,
D. I. Anyfantis, N. Kanistras, A. Barnasas, P. Pouloupoulos, **Evangelos Th. Papaioannou**, A. Conca, D. Trachylis, C. Politis,
SPIN Vol. 10, No. 4 (2020) 2050030.

Link: <https://doi.org/10.1142/S2010324720500307>

- **P.62:** *Bose-Einstein Condensation of Quasi-Particles by Rapid Cooling*,
M. Schneider, T. Brächer, V. Lauer, P. Pirro, D. A. Bozhko, A. A. Serga, H. Yu. Musiienko-Shmarova, B. Heinz, Q. Wang, T. Meyer, F. Heussner, S. Keller, **Evangelos Th. Papaioannou**, B. Lägél, T. Läder, V. S. Tiberkevich, A. N. Slavin, C. Dubs, B. Hillebrands, A.V. Chumak,
Nat. Nanotechnol. 15, 457-461 (2020).

Link: <https://www.nature.com/articles/s41565-020-0671-z>

- **P.61:** *Ultra Thin Films of Yttrium Iron Garnet with Very Low Damping: A Review*,
Georg Schmidt, Christoph Hauser, Martin Paleschke and **Evangelos Th. Papaioannou**,
Phys. Status Solidi B **2020**, **1900644**.

Link: <https://doi.org/10.1002/pssb.201900644>

- **P.60:** *Enhancement of Spin Mixing Conductance in $La_{0.7}Sr_{0.3}MnO_3/LaNiO_3/SrRuO_3$ Heterostructures*,
Christoph Hauser, Camillo Ballani, Philipp Durrenfeld, Frank Heyroth, Philip Trempler, Stefan G. Ebbinghaus, **Evangelos Th. Papaioannou** and Georg Schmidt,
Phys. Status Solidi B **2020**, **1900606**.

Link: <https://doi.org/10.1002/pssb.201900606>

- **P.59:** *Near-field mechanism of the enhanced broadband magneto-optical activity of hybrid Au loaded Bi:YIG*,
S. D. Pappas, P. Lang, T. Eul, M. Hartelt, A. Garcia-Martin, B. Hillebrands, M. Aeschlimann and **Evangelos Th. Papaioannou**,
Nanoscale **12**, **7309 (2020)**

Link: <https://doi.org/10.1039/D0NR00198H>

- **P.58:** *Optical Excitation Wavelength-independent Terahertz Generation Using an Optimized Spintronic Bilayer*,
Valynn Katrine Mag-usara, Garik Torosyan, Miezel Talara, Jessica Afalla, Joselito Muldera,

Hideaki Kitahra, Laura Scheuer, **Evangelos Th. Papaioannou**, René Beigang, and Masahiko Tani,

J. Jpn. Soc. Infrared Science & Technology Vol.29, No.2 (2020).

Link: only in printed format.

- **P.57:** *Influence of the Pt thickness on the structural and magnetic properties of ultra-thin Fe/Pt bilayers,*
D. Karfaridis, S. Keller, L. Mihalceanu, K. Simeonidis, G. P. Dimitrakopoulos, Th. Kehagias, **Evangelos Th. Papaioannou** and G. Vourlias,
Thin Solid Films 694, 137716 (2020).
Link: <https://doi.org/10.1016/j.tsf.2019.137716>
- **P.56:** *Modification of spintronic terahertz emitter performance through defect engineering,*
Dennis M. Nenno, Laura Scheuer, Dominik Sokoluk, Garik Torosyan, Sascha Keller, Marco Rahm, Marco Battiato, Jörg Lösch, Alexander Brodyanski, Rolf Binder, Hans C. Schneider, René Beigang, and **Evangelos Th. Papaioannou**,
Scientific Reports volume 9, Article number: 13348 (2019).
Link: <https://doi.org/10.1038/s41598-019-49963-8>
- **P.55:** *Thickness dependent enhancement of the polar Kerr rotation in Co magnetoplasmonic nanostructures,*
Richard M. Rowan-Robinson, Emil Melander, Ioan-Augustin Chioar, Blanca Caballero, Antonio Garcia-Martin, **Evangelos Th. Papaioannou** and Vassilios Kapaklis,
AIP Advances 9, 025317 (2019)
Link: <https://doi.org/10.1063/1.5079713>
- **P.54:** *Separation of the two-magnon scattering contribution to damping for the determination of the spin mixing conductance,*
A. Conca, S. Keller, M. R. Schweizer, **Evangelos Th. Papaioannou**, B. Hillebrands,
Phys. Rev. B 98, 214439 (2018)
Link: <https://doi.org/10.1103/PhysRevB.98.214439>
- **P.53:** *Efficient Terahertz Generation Using Fe/Pt Spintronic Emitters Pumped at Different Wavelengths,*
Evangelos Th. Papaioannou, Garik Torosyan, Sascha Keller, Laura Scheuer, Marco Battiato, Valynn Katrine Mag-usara, Johannes L’huillier, Masahiko Tani and René Beigang,
IEEE Transactions on Magnetism VOL. 54, No. 11, 9100205, (2018).
Link: <https://doi.org/10.1109/TMAG.2018.2847031>
- **P.52:** *Determination of the spin Hall angle in single-crystalline Pt films from spin pumping experiments,*
Sascha Keller, Laura Mihalceanu, Matthias R. Schweizer, Philipp Lang, Björn Heinz, Moritz Geilen, Thomas Brächer, Philipp Pirro, Thomas Meyer, Andres Conca, Dimitrios Karfaridis, George Vourlias, Thomas Kehagias, Burkard Hillebrands, and **Evangelos Th. Papaioannou**,
New J. Phys. 20, 053002 (2018).

Link: <https://doi.org/10.1088/1367-2630/aabc46>

- **P.51:** *Efficient Spintronic Terahertz Emitters Based on Epitaxial Grown Fe/Pt Layer Structures*, Garik Torosyan, Sascha Keller, Laura Scheuer, Rene Beigang and **Evangelos Th. Papaioannou**,

Scientific Reports 8, 1311 (2018).

Link: <https://doi.org/10.1038/s41598-018-19432-9>

- **P.50:** *The role of interactions in the magneto-plasmonic response at the geometrical threshold of surface continuity*,

Evangelos Th. Papaioannou Hui Fang, Blanca Caballero, Eser Metin Akinoglou, Michael Giersig, Antonio García-Martín, and Paul Fumagalli,

Optic Express Vol. 25, No. 26, 32793 (2017).

Link: <https://doi.org/10.1364/OE.25.032792>

- **P.49:** *Spin-pumping through a varying-thickness MgO interlayer in Fe/Pt system*, Laura Mihalceanu, Sascha Keller, Jochen Greser, Dimitrios Karfaridis, Konstantinos Symeonidis, Georgios Vourlias, Thomas Kehagias, Andres Conca, Burkard Hillebrands, and **Evangelos Th. Papaioannou**,

Appl. Phys. Lett. 110, 252406 (2017).

Link: <http://dx.doi.org/10.1063/1.4989678>

- **P.48:** *Relative weight of the inverse spin Hall and spin rectification effects for metallic Py,Fe/Pt and insulating YIG/Pt bilayers estimated by angular dependent spin pumping measurements*, Sascha Keller, Jochen Greser, Matthias R. Schweizer, Andres Conca, Burkard Hillebrands, and **Evangelos Th. Papaioannou**,

Phys. Rev. B 96, 024437 (2017).

Link: <http://dx.doi.org/10.1103/PhysRevB.96.024437>

- **P.47:** *Lack of correlation between the spin mixing conductance and the ISHE-generated voltages in CoFeB/Pt,Ta bilayers*,

Andres Conca, Björn Heinz, Matthias R. Schweizer, Sascha Keller, **Evangelos Th. Papaioannou**, and Burkard Hillebrands,

Phys. Rev. B 95, 174426 (2017).

Link: <http://dx.doi.org/10.1103/PhysRevB.95.174426>

- **P.46:** *Study of fully epitaxial Fe/Pt bilayers for spin pumping by ferromagnetic resonance spectroscopy*,

Andres Conca, Sascha Keller, Laura Mihalceanu, Thomas Kehagias, George P. Dimitrakopoulos, Burkard Hillebrands, and **Evangelos Th. Papaioannou**,

Phys. Rev. B 93, 134405 (2016).

Link: <https://doi.org/10.1103/PhysRevB.93.134405>

- **P.45:** *Light localization and magneto-optic enhancement in Ni antidot arrays*, Markus Rollinger, Philip Thielen, Emil Melander, Erik Ostman, Vassilios Kapaklis, Bjorn Obry, Mirko Cinchetti, Antonio Garcia-Martin, Martin Aeschlimann, and **Evangelos Th. Papaioannou**,

nou,

Nano Letters 16(4), 2432-2438 (2016).

Link: <https://doi.org/10.1021/acs.nanolett.5b05279>

- **P.44:** *Observation of a hole-size-dependent energy shift of the surface plasmon resonance in Ni antidot thin films,*

Hui Fang, Blanca Caballero, Eser M. Akinoglu, **Evangelos Th. Papaioannou**, Antonio Garcia-Martin, Juan C. Cuevas, Michael Giersig, and Paul Fumagalli,

Appl. Phys. Lett. 106, 153104 (2015).

Link: <http://dx.doi.org/10.1063/1.4917513>

- **P.43:** *Microwave-induced spin currents in ferromagnetic- insulator normal-metal bilayer system,* Milan Agrawal, Alexander A. Serga, Viktor Lauer, **Evangelos Th. Papaioannou**, Burkard Hillebrands, and Vitaliy I.Vasyuchka,

Appl. Phys. Lett. 105, 092404 (2014).

Link: <http://dx.doi.org/10.1063/1.4894636>

- **P.42:** *Reflectivity studies of magnetic heterostructures,*

Matts Björk, Matthew S. Brewer, Unnar B. Arnalds, Erik Ostman, Martina Ahlberg, Vassilios Kapaklis, **Evangelos Th. Papaioannou**, Gabriella Andersson, Björgvin Hjörvarsson, and Thomas P. A. Hase,

J. Surf. Inter. Mater. 2, 24 (2014).

Link: <http://dx.doi.org/10.1166/jsim.2014.1032>

- **P.41:** *Induced Magnetic Moments of 4d and 5d Elements in Thin Films and Multilayers by X-Ray Magnetic Circular Dichroism,*

A. Vlachos, V. Kapaklis, M. Angelakeris, **Evangelos Th. Papaioannou**, F. Wilhelm, A. Rogalev, and P. Pouloupoulos,

J. Surf. Inter. Mater. 2, 8 (2014).

Link: <http://dx.doi.org/10.1166/jsim.2014.1030>

- **P.40:** *Magneto-optical enhancement in Co/Au patterned nanostructures,*

Evangelos Th. Papaioannou, Thomas Meyer, and Burkard Hillebrands,

J. Surf. Inter. Mater. 2, 40 (2014).

Link: <http://dx.doi.org/10.1166/jsim.2014.1034>

- **P.39:** *Thermal transitions in nano-patterned xy-magnets,* Unnar B. Arnalds, Martina Ahlberg, Matthew S. Brewer, Vassilios Kapaklis,

E. Th. Papaioannou, Masoud Karimipour, Panagiotis Korelis, Aaron Stein, Sveinn Olafsson, Thomas P. A. Hase, and Björgvin Hjörvarsson,

Appl. Phys. Lett. 105, 042409 (2014).

Link: <http://dx.doi.org/10.1063/1.4891479>

- **P.38:** *Role of bulk-magnon transport in the temporal evolution of the longitudinal spin-Seebeck effect,*

Milan Agrawal, Vitaliy. I. Vasyuchka, Alexander. A. Serga, Akihiro Kirihaara, Phillipp Pirro,

- Thomas Langner, Matthias B.Jungfleisch, Andrii V. Chumak, **E. Th. Papaioannou** and Burkard Hillebrands,
Phys. Rev. B **89**, 224414 (2014).
 Link: <http://dx.doi.org/10.1103/PhysRevB.89.224414>
- **P.37:** *Annealing influence on the gilbert damping parameter and the exchange constant of CoFeB thin films*,
 Andres Conca, **Evangelos Th. Papaioannou**, Steffan Klingler, Jochen Greser, Thomas Sebastian, Britta Leven, Jörg Lösch, and Burkard Hillebrands,
Appl. Phys. Lett. **104**, 182407 (2014).
 Link: <http://dx.doi.org/10.1063/1.4875927>
 - **P.36:** *Hysteresis free switching between vortex and collinear magnetic states*,
 Erik Ostman, Unnar B. Arnalds, Emil Melander, Vassilios Kapaklis, Gunnar K. Palsson, Alexander Y. Saw, Marc A Verschuuren, Florian Kronast, **Evangelos Th. Papaioannou**, Charles S. Fadley, and Björgvin Hjörvarsson,
New Journal of Physics **16**, 053002 (2014).
 Link: <http://dx.doi.org/10.1088/1367-2630/16/5/053002>
 - **P.35:** *Natural nanomorphous Ni/NiO Magnetic Multilayers: Structure and Magnetism of the High-Pressure Series*,
 S. D. Pappas, A. Delimitis, V. Kapaklis, **E. Th. Papaioannou**, P. Pouloupoulos, D. Trachylis, M. J. Velgakis, and C. Politis,
J. Nanosci. Nanotech. **14** (8), 6103-6107(5) (2014).
 Link: <http://dx.doi.org/10.1166/jnn.2014.8864>
 - **P.34:** *Optimizing the spin-pumping induced inverse spin Hall voltage by crystal growth in Fe/Pt bilayers*,
Evangelos Th. Papaioannou, Philipp Fuhrmann, Matthias. B. Jungfleisch, Thomas Brächer, Philipp Pirro, Viktor Lauer, Jörg Lösch, and Burkard Hillebrands,
Appl. Phys. Lett. **103**, 162401 (2013).
 Link: <http://dx.doi.org/10.1063/1.4825167>
 - **P.33:** *Nonlocal nonlinear magneto-optical response of a magnetoplasmonic crystal*,
 I. Razdolski, D. G. Gheorghe, E. Melander, B. Hjörvarsson, P. Patoka, A. V. Kimel, A. Kirilyuk, **E. Th. Papaioannou**, and Th. Rasing,
Phys. Rev. B. **88**, 075436 (2013).
 Link: <http://dx.doi.org/10.1103/PhysRevB.88.075436>
 - **P.32:** *Temperature dependence of magnetic properties in weakly exchange coupled Fe/V superlattices*,
 Martina Ahlberg, **Evangelos Th. Papaioannou**, Gregor Nowak, and Björgvin Hjörvarsson,
J. Magn. Magn. Mater. **341**, 142 (2013).
 Link: <http://dx.doi.org/10.1016/j.jmmm.2013.04.058>
 - **P.31:** *Layering and temperature-dependent magnetization and anisotropy of naturally produced*

Ni/NiO multilayers,

S. D. Pappas, V. Kapaklis, A. Delimitis, P. E. Jönsson, **E. Th. Papaioannou**, P. Pouloupoulos, P. Fumagalli, D. Trachylis, M. J. Velgakis, and C. Politis,

J. Appl. Phys. **112**, 053918 (2012).

Link: <http://dx.doi.org/10.1063/1.4750026>

- **P.30:** *Thermalized ground state of artificial kagome spin ice building blocks,*

Unnar B. Arnalds, Alan Farhan, Rajesh V. Chopdekar, Vassilios Kapaklis, Ana Balan, **Evangelos Th. Papaioannou**, Martina Ahlberg, Frithjof Nolting, Laura J. Heyderman, and Björgvin Hjörvarsson,

Appl. Phys. Lett. **101**, 112404 (2012).

Link: <http://dx.doi.org/10.1063/1.4751844>

- **P.29:** *X-ray resonant magnetic scattering from patterned multilayers,*

Unnar B. Arnalds, Thomas P. A. Hase, **Evangelos Th. Papaioannou**, Hossein Raanaei, Radu Abrudan, Timothy R. Charlton, Sean Langridge, and Björgvin Hjörvarsson,

Phys. Rev. B **86**, 064426 (2012).

Link: [10.1103/PhysRevB.86.064426](http://dx.doi.org/10.1103/PhysRevB.86.064426)

- **P.28:** *Influence of the magnetic field on the plasmonic properties of transparent Ni anti-dot arrays,*

Emil Melander, Erik Östman, Janine Keller, Jan Schmidt, **Evangelos Th. Papaioannou**, Vassilios Kapaklis, Unnar B. Arnalds, B. Caballero, A. García-Martín, J. C. Cuevas, and Björgvin Hjörvarsson,

Appl. Phys. Lett. **101**, 063107 (2012).

Link: <http://dx.doi.org/10.1063/1.4742931>

- **P.27:** *Melting artificial spin ice,*

Vassilios Kapaklis, Unnar B. Arnalds, Adam Harman-Clarke, **Evangelos Th. Papaioannou**, Masoud Karimipour, Panagiotis Korelis, Andrea Taroni, Peter C. W. Holdsworth, Steven T. Bramwell, Björgvin Hjörvarsson,

New Journal of Physics **14**, 035009 (2012).

Link: <https://doi.org/10.1088/1367-2630/14/3/035009>

- **P.26:** *Surface plasmons and magneto-optic activity in hexagonal Ni anti-dot arrays,*

Evangelos Th. Papaioannou, Vassilios Kapaklis, Emil Melander, Björgvin Hjörvarsson, Spiridon D. Pappas, Piotr Patoka, Michael Giersig, Paul Fumagalli, Antonio Garcia-Martin, Georgios Ctistis,

Optic Express Vol. **19** (24), 23867-23877 (2011).

Link: <https://doi.org/10.1364/OE.19.023867>

- **P.25:** *Growth and Magnetism of Natural Multilayers,*

P. Pouloupoulos, S. D. Pappas, V. Kapaklis, P.E. Jönsson, **E.Th. Papaioannou**, A. Delimitis, D. Trachylis, M. J. Velgakis, E. I. Meletis, and C. Politis,

J. of Nano Research **15**, 95-103 (2011).

Link: <https://doi.org/10.4028/www.scientific.net/JNanoR.15.95>

- **P.24:** *Ultrafast Transport of Laser-Excited Spin-Polarized Carriers in Au/Fe/MgO(001)*,
A. Melnikov, I. Razdolski, T. O. Wehling, **Evangelos Th. Papaioannou**, V. Roddatis, P. Fumagalli, O. Aktsipetrov, A. I. Lichtenstein, and U. Bovensiepen,
Phys. Rev. Lett. **107**, 076601 (2011).
Link: <https://doi.org/10.1103/PhysRevLett.107.076601>
- **P.23:** *Magnetic structure and diffracted magneto-optics of patterned amorphous multilayers*,
Unnar B. Arnalds, **Evangelos Th. Papaioannou**, Thomas P. A. Hase, Hossein Raanaei, Gabriella Andersson, Timothy R. Charlton, Sean Langridge, and Björgvin Hjörvarsson,
Phys. Rev. B **82**, 144434 (2010).
Link: <https://doi.org/10.1103/PhysRevB.82.144434>
- **P.22:** *Plasmon induced modification of the transverse magneto-optical response in Fe antidot arrays*,
J. F. Torrado, **E. Th. Papaioannou**, G. Ctistis, P. Patoka, M. Giersig, G. Armelles, and A. Garcia-Martin,
Phys. Stat. Sol. RRL **4** (10), 271-273 (2010).
Link: <https://doi.org/10.1002/pssr.201004238>
- **P.21:** *Tuning the perpendicular magnetic anisotropy of Co-based layers in multilayered systems*,
M. Angelakeris, **E. Th. Papaioannou**, P. Pouloupoulos, M. Kopsidis, O. Kalogirou, and N. K. Flevaris,
J. Nanosci. Nanotech. **10**, 6082 (2010).
Link: <https://doi.org/10.1166/jnn.2010.2601>
- **P.20:** *Dimensionality and confinement effects in δ -doped Pd(Fe) layers*,
Evangelos Th. Papaioannou, Vassilios Kapaklis, Andrea Taroni, Moreno Marcellini, and Björgvin Hjörvarsson,
J. Phys.: Condens. Matter **22**, 236004 (2010).
Link: <https://doi.org/10.1088/0953-8984/22/23/236004>
- **P.19:** *Positive surface and perpendicular magnetic anisotropy in natural nanomorphous Ni/NiO multilayers*,
P. Pouloupoulos, V. Kapaklis, P. E. Jönsson, **E. Th. Papaioannou**, A. Delimitis, S. D. Pappas, D. Trachylis, and C. Politis,
Appl. Phys. Lett. **96**, 202503 (2010).
Link: <https://doi.org/10.1063/1.3428791>
- **P.18:** *Magneto-optic enhancement and magnetic properties in Fe antidot films with hexagonal symmetry*,
E. Th. Papaioannou, V. Kapaklis, P. Patoka, M. Giersig, P. Fumagalli, A. Garcia-Martin, E. Ferreira-Vila, G. Ctistis,
Phys. Rev. B **81**, 054424 (2010).

Link: <https://doi.org/10.1103/PhysRevB.81.054424>

- **P.17:** *Structural and magnetic properties of $\text{Co}_{68}\text{Fe}_{24}\text{Zr}_8/\text{Al}_2\text{O}_3$ multilayers*,
H. Lindbaum, H. Rannaei, **E. Th. Papaioannou**, K. Leifer, and B. Hjörvarsson,
Journal of Crystal Growth **312**, 580-586 (2010).
Link: <https://doi.org/10.1016/j.jcrysgro.2009.11.025>
- **P.16:** *Optical and Magnetic Properties of Hexagonal Arrays of Subwavelength Holes in Optically Thin Cobalt Films*,
G. Ctistis, **E. Papaioannou**, P. Patoka, J. Gutek, P. Fumagalli, and M. Giersig,
Nano Lett. **9**, 1-6 (2009).
Link: <https://doi.org/10.1021/nl801811t>
- **P.15:** *Magnetic Force Microscopy on Co/Pt multilayers*,
V. Karoutsos, P. Pouloupoulos, M. Angelakeris, **E.Th. Papaioannou**, P. Fumagalli, and N. K. Flevaris,
Solid State Phenomena **152-153**, 241-244 (2009).
Link: <https://doi.org/10.4028/www.scientific.net/SSP.152-153.241>
- **P.14:** *Pt-Co multilayers: Interface effects at the monolayer limit*,
M. Angelakeris, **E.Th. Papaioannou**, P. Pouloupoulos, A. Vlachos, F. Wilhelm, A. Rogalev, and N. K. Flevaris,
Phys. Stat. Sol. (a) **205** (10), 2302-2306 (2008).
Link: <https://doi.org/10.1002/pssa.200778802>
- **P.13:** *CoCr/Pt multilayers with adjustable perpendicular anisotropy*,
E. Th. Papaioannou, K. Lenz, M. Charilaou, P. Fumagalli, P. Pouloupoulos, M. Angelakeris, N. K. Flevaris, F. Wilhelm, and A. Rogalev,
J. Appl. Phys. **103**, 093905 (2008).
Link: <https://doi.org/10.1063/1.2912948>
- **P.12:** *Magnetic, magneto-optic and magnetotransport properties of nanocrystalline Co/Au multilayers with ultrathin Au interlayers*,
E. Th. Papaioannou, V. Karoutsos, M. Angelakeris, O. Valassiades, P. Fumagalli, N. K. Flevaris, and P. Pouloupoulos,
J. Nanosci. Nanotechnol. **8**, 4323 (2008).
Link: <https://doi.org/10.1166/jnn.2008.290>
- **P.11:** *Growth modes of nanocrystalline Ni/Pt multilayers with deposition temperature*,
V. Karoutsos, P. Papasotiriou, P. Pouloupoulos, V. Kapaklis, C. Politis, M. Angelakeris, Th. Kehagias, N. K. Flevaris, and **E. Th. Papaioannou**,
J. Appl. Phys. **102**, 043525 (2007).
Link: <https://doi.org/10.1063/1.2769785>
- **P.10:** *Structural, magnetic and magneto-optical properties of nanocrystalline face centered cubic $\text{Co}_{70}\text{Cr}_{30}$ /Pt multilayers with perpendicular magnetic anisotropy*,
E. Th. Papaioannou, M. Angelakeris, P. Pouloupoulos, I. Tsiaoussis, C. Rüdtt, P. Fumagalli,

and N. K. Flevaris,

J. Nanosci. Nanotech. **7**, 4278-4284 (2007).

Link: <https://doi.org/10.1166/jnn.2007.901>

- **P.9:** *Magnetism and magneto-optics of nanocrystalline Ni/Pt multilayers grown by e-beam evaporation at room temperature,*

E. Th. Papaioannou, M. Angelakeris, N. K. Flevaris, P. Fumagalli, Ch. Müller, A. Troupis, A. Spanou, V. Karoutsos, P. Pouloupoulos, V. Kapaklis, and C. Politis,

J. Appl. Phys. **101**, 023913 (2007).

Link: <https://doi.org/10.1063/1.2427107>

- **P.8:** *Ni/Pt multilayers: growth and magneto-optics,*

E. Th. Papaioannou, P. Fumagalli, M. Angelakeris, P. Pouloupoulos, V. Karoutsos, V. Kapaklis, F. Wilhelm, C. Politis, and N. K. Flevaris,

Phys. Stat. Sol. (C) **1** (12), 3324-3327 (2004).

Link: <https://doi.org/10.1002/pssc.200405447>

- **P.7:** *Magnetic moment of Au at Au/Co interfaces: A direct experimental determination,*

F. Wilhelm, M. Angelakeris, N. Jaouen, P. Pouloupoulos, **E. Th. Papaioannou**, Ch. Müller, P. Fumagalli, A. Rogalev, and N. K. Flevaris,

Phys. Rev. B **69**, 220404(R) (2004).

Link: <https://doi.org/10.1103/PhysRevB.69.220404>

- **P.6:** *Measurements of the magnetoresistance effect in Co-Pt multilayers grown on patterned substrates,*

E. Papaioannou, K. Simeonidis, O. Valassiades, N. Vouroutzis, M. Angelakeris, P. Pouloupoulos, I. Kostic, and N. K. Flevaris,

J. Magn. Magn. Mater. **272-276**, E1323 (2004).

Link: <https://doi.org/10.1016/j.jmmm.2003.12.194>

- **P.5:** *The influence of patterned substrates on structure and magnetism of Au/Co multilayers,*

M. Angelakeris, **E. Papaioannou**, O. Valassiades, N. Vouroutzis, I. Tsiaoussis, Ch. Mueller, P. Fumagalli, I. Kostic, L. Matay, and N. K. Flevaris,

J. Magn. Magn. Mater. **272-276**, E1317 (2004).

Link: <https://doi.org/10.1016/j.jmmm.2003.12.190>

- **P.4:** *Structural, magnetic and spectroscopic magneto-optic property aspects of Pt-Co multilayers with intentionally alloyed layers,*

P. Pouloupoulos, M. Angelakeris, **E. Th. Papaioannou**, N. K. Flevaris, D. Niarchos, M. Nyvlt, V. Prosser, S. Visnovsky, Ch. Müller, P. Fumagalli, F. Wilhelm, and A. Rogalev,

J. Appl. Phys. **94**, 7662 (2003).

Link: <https://doi.org/10.1063/1.1629156>

- **P.3:** *Fabrication of novel magnetic nanostructures by colloidal bimetallic nanocrystals and multilayers,*

M. Angelakeris, O. Crisan, **E. Papaioannou**, N. Vouroutzis, I. Tsiaoussis, E. Pavlidou, A. D. Crisan, I. Kos-

tic, N. Sobal, M. Giersig, and N. K. Flevaris,

Materials and Science Engineering C **23**, 873 (2003).

Link: <https://doi.org/10.1016/j.msec.2003.09.147>

- **P.2:** *Giant magnetoresistance response in Ag-Co multilayers and nanoparticles,*

M. Angelakeris, **E. Th. Papaioannou**, P. Pouloupoulos, O. Valassiades, and N. K. Flevaris,
Sensors and Actuators A **106**, 91 (2003).

Link: [https://doi.org/10.1016/S0924-4247\(03\)00141-9](https://doi.org/10.1016/S0924-4247(03)00141-9)

- **P.1:** *Temperature-dependent magnetizations and anisotropies in Pd-Ni multilayers,*

E. Th. Papaioannou, P. Pouloupoulos, M. Angelakeris, K. S. Zeimpekis, and N. K. Flevaris,
Phys. Stat. Sol. (A) **189**, 717 (2002).

Link: [https://doi.org/10.1002/1521-396X\(200202\)189:3<717::AID-PSSA717>3.0.CO;2-7](https://doi.org/10.1002/1521-396X(200202)189:3<717::AID-PSSA717>3.0.CO;2-7)

Publications in conference proceedings: 11

- **Proc.11:** *Enhanced THz emission from ultrathin Ta/Fe/Pt spintronic trilayers,*

Papaioannou Evangelos Th., L. Scheuer; G. Torosyan; G. P. Dimitrakopoulos; S. Kret; A. D. Crisan; O. Crisan; T. Kehagias; and R. Beigang,
50th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz)
(2025).

Link: <https://doi.org/10.1109/IRMMW-THz61557.2025.11319612>

- **Proc.10:** *Materials engineering of spintronic THz emitters,*

Laura Scheuer; Garik Torosyan; Ovidiu Crisan; Rene Beigang; and **Papaioannou Evangelos Th.**,
Proceedings Volume 13119, Spintronics XVII; 1311908 (2024).

Link: <https://doi.org/10.1117/12.3027917>

- **Proc.9:** *Terahertz emission from stacked spintronic Fe/Pt layer emitters with independent direction of magnetization,*

Marco Rahm, Dominik Sokoluk, Jan Kappa, Laura Scheuer, and **Papaioannou Evangelos Th.**,
Proc. SPIE 12230, Terahertz Emitters, Receivers, and Applications XIII, 1223008 (3 October 2022).

Link: <https://doi.org/10.1117/12.2633394>

- **Proc.8:** *Terahertz Emission Properties from Fe/Pt Metallic Spintronic Hetero-Structures,*

M. Tani, V. Mag-usara, M. Talara, C. Tachioka, J. Afalla, J. Muldera, T. Furuya, M. C. S. Escano, G. Torosyan, L. Scheuer, D. Sokoluk, M. Rahm, **Papaioannou Evangelos Th.**, R. Beigang, C. E. Petoukhoff, J. Madeo, K. M. Dani, K. Saito, Q. Guo;, H. Kitahara, M. Nakajima, D. Bulgarevich, M. Watanabe,

2020 IEEE International Conference on Plasma Science (ICOPS), Singapore, Singapore, 2020, pp. 55-55.

Link: [doi:10.1109/ICOPS37625.2020.9717605](https://doi.org/10.1109/ICOPS37625.2020.9717605)

- **Proc.7:** *Correlation of interface transmission in THz spintronic emitters with spin mixing conductance in spin pumping experiments,*
Scheuer Laura, Ruhwedel Moritz, Beigang Rene, Torosyan Garik, Georg Schmidt, **Papaioannou Evangelos Th.**,
Proceedings of SPIE - The International Society for Optical Engineering in 2020 (2020).
Link: [doi:10.1117/12.2569968](https://doi.org/10.1117/12.2569968)
- **Proc.6:** *Spintronic THz Generation Using a Silicon-based Fe/Pt Bilayer as the Radiation Source,*
Valynn Katrine Mag-usara; Garik Torosyan; Miezal Talara; Jessica Afalla; Joselito Muldera; Hideaki Kitahara; Laura Scheuer; Dominik Sokoluk; **Evangelos Th. Papaioannou**; Marco Rahm; Rene Beigang; and Masahiko Tani,
International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz) September 01, (2019).
Link: doi.org/10.1109/IRMMW-THZ.2019.8873854
- **Proc.5:** *Efficient terahertz generation using Fe/Pt spintronic emitters pumped at different wavelengths,*
Beigang, Rene; **Papaioannou, Evangelos Th.**; Scheuer, Laura; Keller, Sascha; Torosyan, Garik; Rahm, Marco; Sokoluk, Dominik; Talara, Miezal; Oda, Yoshinori; Kitahara, Hideaki; Afalla, Jessica; Mag-usara, Valynn Katrine; Tani, Masahiko,
Proceedings SPIE Volume 10917, Terahertz, RF, Millimeter, and Submillimeter-Wave Technology and Applications XII; 109170O (2019).
Link: doi.org/10.1117/12.2514564
- **Proc.4:** *Optimize Fe/Pt bilayers as efficient spintronic terahertz emitters by tailoring the thickness of the layers and the interface structural properties,*
L. Scheuer, S. Keller, G. Torosyan, M. Battiato, R. Beigang and **Evangelos Th Papaioannou**,
2018 IEEE International Magnetics Conference (INTERMAG), Singapore, (2018).
Link: <https://doi.org/10.1109/INTMAG.2018.8508361>.
- **Proc.3:** *Enhancement of THz Generation Using Multilayer Spintronic Emitters,*
L. Scheuer, G. Torosyan, S. Keller, **Evangelos Th Papaioannou**, and R. Beigang,
43RD INTERNATIONAL CONFERENCE ON INFRARED, MILLIMETER, AND TERAHERTZ WAVES (IRMMW-THz) (2018).
Link: <https://doi.org/10.1109/IRMMW-THZ.2018.8510232>.
- **Proc.2:** *Properties of an Optimized Fe/Pt-based Spintronic Terahertz Emitter: Excitation Power and Wavelength Dependences,*
Valynn Katrine Mag-usara; Garik Torosyan; Jessica Afalla; Joselito Muldera; Dmitry Bulgarevich; Hideaki Kitahara; Mary Clare Sison Escano; Sascha Keller; Laura Scheuer; Johannes L'huillier; Rene Beigang; **Evangelos Th Papaioannou**; Masahiko Tani,
43RD INTERNATIONAL CONFERENCE ON INFRARED, MILLIMETER, AND TERAHERTZ WAVES (IRMMW-THz) in 2018 (2018).
Link: doi.org/10.1109/IRMMW-THZ.2018.8510327

- **Proc.1:** *Optical and Magnetic Properties of Transition Metal Films with Subwavelength Hole Arrays*,
Georgios Ctistis, **Evangelos Th Papaioannou**, Piotr Patoka, Paul Fumagalli, Michael Giersig,
2009 Conference on Lasers & Electro-Optics Europe & 11th European Quantum Electronics Conference, CLEO EUROPE/EQEC, Munich, Germany 14-19 June (2009).
Link: <https://doi.org/10.1109/CLEOE-EQEC.2009.5192028>.