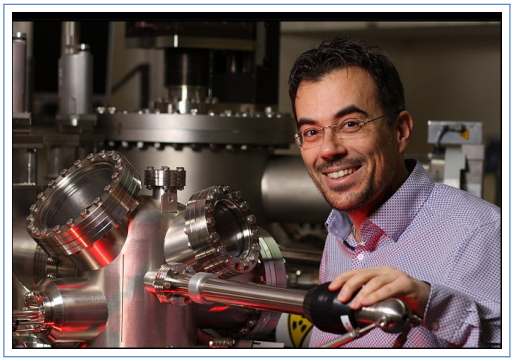
Evangelos Papaioannou

Curriculum Vitae



Personal Data

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Researcher unique identifier: N-7518-2013
Scopus Author ID: 6602129088
ORCID: 0000-0002-9822-2343

Current Position

2023 - now **Assistant Professor**, Department of Physics,
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.

2013 - 2014 **Senior Researcher** in the group of Prof. Burkard Hillebrands, Dept. of Physics, TU Kaiserslautern, Germany.

2012 - 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.

2007 **Research fellow** in the group of Prof. Paul Fumagalli, Institut für Experimental Physik, Freie Universität Berlin, Germany.

Education

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.

Master in Physics, Department of Physics, Aristotle University of Thessaloniki, Greece.
Master thesis title: Magnetic and magneto-transport properties in CoAg/Pt and Pd/Ni multilayers, *Supervisor:* Prof. N. K. Flevaris.

Bachelor in Physics, Department of Physics, Aristotle University of Thessaloniki, Greece.

Research Fields

- Interaction of light and magnetism: Magneto-photonics, magneto-plasmonics, spin-plasmonics of magnetic nanostructures.

- Spin-conversion phenomena 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 and sputtering techniques.

- Methods for magnetic and structural characterization of patterned magnetic structures (MOKE, FMR, VSM, SQUID, MFM, BLS, XMCD, XRMS, THz TDS , XRD, XRR, LEED, RHEED, Auger, SEM, TEM).

Summary of Teaching activities-University courses

- Electronic Praktikum (Winter Semester(WS) 2021-22, WS 2022-23)
- Nuclear Physics (from Summer Semester (SS) 2020 up to today)
- Solid State Physics (from Winter Semester (WS) 2019-2020 up to today)
- Nanotechnology I (from Summer Semester (SS) 2015 up to SS2019)
- Nanotechnology II (from Winter Semester (WS) 2015-2016 up to WS2018-2019)
- Magnetophotonics and magneto-optical spectroscopy (SS2015, WS2015-2016, SS2016, WS2016-2017, SS2017, WS2017-2018, SS2018)
- Advanced experimental methods for magnetic and structural characterisation of magnetic nanostructures (SS2018)
- Magnetism and light (WS2018-2019, SS2019)
- Magnonics (WS2018-2019)

Third-party funds as a Principal Investigator

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

- 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 prolongated up to 2022. Budget of the project 12.000 €

- Holder of a Carl Zeiss support program for young scientists: Magnetic Heterostructures. The project is funded for the period of 15.07.2014-31.12.2018. Budget of the project 400.000 €

- Deutscheforschungsgemeinschaft (DFG) Project: SPIN+X SFB TRR 173/ Project B07 Spin + Magnon Control: Controlling interaction between magnons and plasmons. My project is funded for the period of 01.01.2016-31.12.2019. Budget of the project 383.000 €.

- TU Nachwuchsring, Research Funding, TU Kaiserslautern. Project: Spin Hall nanooscillators for neuronic networks. My project was funded for the year 2017. Budget of the project 7.000 €.

- Project: Promotion of young talents, financed by the TU Kaiserslautern ("Nachwuchsring Projekt"). My proposal under the title: "Spin current manipulation with antiferromagnetic materials" was financed with 10.000 €,for the period of 1 year (2015).

- PPP-IKYDA 2015-DAAD bilateral German-Greek Collaboration scheme. My proposal under the title:"Reveal the interface characteristics of spin pumping" was financed with 10.000 €, for the period of 2 years 2015-2016.

- Promotion of mobility (Mobilitätsförderung TU Kaiserslautern). Budget of 1850 €, for the mobility of my PhD student Sascha Keller in 2016.

- OPTIMAS-and TU Nachwuchsring individual program to support Master/Diploma students of young researchers. My proposal under the title 'Terahertz magnonics with antiferromagnetic materials" was funded with 1000 €,in October 2016. This amount was used to hire student assistants.

Summary of Publications and Presentations in national and International Conferences

Publications **Total 82**. Peer-reviewed articles in international journals: **76**, Peer-reviewed conference proceedings: **5**, Book chapters: **2**, submitted **2**

h-index h-index: **28**, i10-index: **46** (Source: https://scholar.google.de, last updated March 2023)

h-index h-index: **24**, (Source: scopus, last updated March 2023)

h-index h-index: **23**, (Source: researcherid, last updated March 2023)

Conferences 54 oral contributions to international conferences and workshops, including 18 invited talks, 3 invited seminars, 33 contributed talks

Editorial work and commissions of trust

Referee for scientific proposals for DAAD, Alexander von Humboldt Foundation, DeutscheForschungsGemeinschaft (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 2014-2018 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 'Hrakleitos' 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.*

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.
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*
It concerns the publication P.51	A press release was issued by the 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 in 100 most read articles among all disciplines in the year 2018 as Scientific Reports announced.
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

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

Publication list

Book chapters: 2

- *Book Chapter title:* **Magnetoplasmonics in purely ferromagnetic subwavelength arrays**, Spyridon Pappas, **Evangelos Th. Papaioannou**,
  21[21] Century Nanoscience - A Handbook: Nanophotonics, Nanoelectronics, and Nanoplasmonics Volume 6, Chapter 6, edited by Klaus D. Sattler, 2020, CRC Press Taylor & Francis Group.
- *Book Chapter title:* **THz spintronic emitters**,
  Evangelos Th. Papaioannou, Rene Beigang,
  in Advances in Terahertz Source Technologies, Edited By Gun-Sik Park, Masahiko Tani, Jae-Sung Rieh, Sang Yoon Park, ISBN 9789814968898 772 Pages 99 Color 219 B/W Illustrations April 16, 2024 by Jenny Stanford Publishing Pte Ltd, 2024.

Publications: 82

Peer-reviewed articles: 76

- **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, Renigang, Ovidiu Crisan, Panagiotis Poulopoulos and **Evangelos Th. Papaioannou**,
  Nanomaterials (2024), 14, 215
- **P.75:** *Spin transport and magnetic proximity effect in CoFeB/normal metal/Pt trilayers*, Simon Her, Matthias R. Schweizer, Sascha Keller, Andres Conca, Moritz Hofherr, **Evangelos Th. Papaioannou**, Benjamin Stadtmller, Burkard Hillebrands, Martin Aeschlimann and Mathias Weiler,
  IEEE Transactions on Magnetics XX (2024)
- **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)
- **P.73:** *Charge Dynamics in Spintronic Terahertz Emitters*,
  Georg Schmidt, Bikash Das-Mohapatra and **Evangelos Th. Papaioannou**,
  PHYSICAL REVIEW APPLIED 19, L041001 (2023)
- **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 Poulopoulos,
  Anyfantis et al., Materials 16(4), 1378, Feb 7, (2023)
- **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, Miezel L. Talara, Joselito E. Muldera, Hideaki Kitahara, David R. Bacon, Makoto Nakajima, Keshav Dani, **Evangelos Th. Papaioannou**, René Beigang, and Masahiko Tani,

Mag-usara et al., iScience 25, 104615, July 15, (2022)

- **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, René Beigang, and **Evangelos Th. Papaioannou**,
  Scheuer et al., iScience 25, 104319 May 20, (2022)
- **P.69:** *Growth, Magnetic Anisotropies and Exchange Bias of Thin Ni0.95Fe0.05/NiFeO Multilayers*,
  Dimitrios I. Anyfantis 1, Camillo Ballani, Nikos Kanistras, Alexandros Barnasas, Vassilios Kapaklis, Georg Schmidt, **Evangelos Th. Papaioannou** and Panagiotis Poulopoulos,
  Coatings 12, 627, (2022)
- **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)
- **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)
- **P.66:** *Magnetization Reversal and Dynamics in Epitaxial Fe/Pt Spintronic Bilayers Stimulated by Interfacial Fe_3O_4 Nanoparticles*,
  Thomas Kehagias, Isaak G. Vasileiadis, Dimitrios Karfaridis, Camillo Ballani, Laura Mihalceanu, Christoph Hauser, George P. Dimitrakopulos, George Vourlias and **Evangelos Th. Papaioannou**,
  Materials 2021,14, 4354.
- **P.65:** *Magnetic Aspects and Large Exchange Bias of Ni0.9Co0.1/NiCoO Multilayers*,
  Dimitrios I. Anyfantis, Nikos Kanistras, Camillo Ballani, Alexandros Barnasas, Vassilios Kapaklis, Georg Schmidt, **Evangelos Th. Papaioannou**, P. Poulopoulos,
  Micro 2021,1,43-54.
- **P.64:** *THz spintronic emitters: a review on achievements and future challenges*,
  Evangelos Th. Papaioannou, René Beigang,
  Nanophotonics 2021; 10(4): 1243-1257.
- **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. Poulopoulos, **Evangelos Th. Papaioannou**, A.

Conca, D. Trachylis, C. Politis,
SPIN Vol. 10, No. 4 (2020) 2050030.

- **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. Lägel, T. Läber, V. S. Tiberkevich, A. N. Slavin, C. Dubs, B. Hillebrands, A.V. Chumak,
  Nat. Nanotechnol. 15, 457?461 (2020).
- **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.
- **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.
- **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)
- **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).
- **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. Dimitrakopulos, Th. Kehagias, **Evangelos Th. Papaioannou** and G. Vourlias,
  Thin Solid Films 694, 137716 (2020).
- **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).
- **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)

- **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)
- **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 Magnetics VOL. 54, No. 11, 9100205, (2018).
- **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).
- **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).
- **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).
- **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).
- **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).
- **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. Papaioan-**

nou, and Burkard Hillebrands,
Phys. Rev. B 95, 174426 (2017).

- **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. Dimitrakopulos, Burkard Hillebrands, and **Evangelos Th. Papaioannou**,
  Phys. Rev. B 93, 134405 (2016).
- **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**,
  Nano Letters 16(4), 2432-2438 (2016).
- **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).
- **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).
- **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).
- **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. Poulopoulos,
  J. Surf. Inter. Mater. 2, 8 (2014).
- **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).
- **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).

- **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 Kirihara, Phillipp Pirro, Thomas Langner, Matthias B.Jungfleisch, Andrii V. Chumak, **E. Th. Papaioannou** and Burkard Hillebrands,
  Phys. Rev. B 89, 224414 (2014).
- **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).
- **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).
- **P.35:** *Natural nanomorphous Ni/NiO Magnetic Multilayers: Structure and Magnetism of the High-Ar Pressure Series*,
  S. D. Pappas, A. Delimitis, V. Kapaklis, **E. Th. Papaioannou**, P. Poulopoulos, D. Trachylis, M. J. Velgakis, and C. Politis,
  J. Nanosci. Nanotech. 14 (8), 6103-6107(5) (2014).
- **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).
- **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).
- **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).
- **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. Poulopoulos, P. Fumagalli, D. Trachylis, M. J. Velgakis, and C. Politis,
  J. Appl. Phys. 112, 053918 (2012).

- **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).
- **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).
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