Ultralow power and ultra-wideband spintronics near thermodynamic limits

Results

Project Information

SKYNOLIMIT

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Coordinated by
KOC UNIVERSITY
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CORDIS provides links to public deliverables and publications of HORIZON projects.

Links to deliverables and publications from FP7 projects, as well as links to some specific result types such as dataset and software, are dynamically retrieved from OpenAIRE.

Publications

Peer reviewed articles (6)

Cascadable direct current driven skyrmion logic inverter gate

Author(s): Arash Mousavi Cheghabouri; Ferhat Katmis; Mehmet C. Onbasli
Published in: Physical Review B, Issue 2, 2022, ISSN 2469-9969
Publisher: American Physical Society
DOI: 10.1103/physrevb.105.054411

Steady state entanglement of distant nitrogen-vacancy centers in a coherent thermal magnon bath
Author(s): Kamran Ullah, Emre Kose, Rawana Yagan, Mehmet C. Onbasli, and Ozgur E. Mustecaplioglu
Published in: Physical Review Research, Issue 4, 2022, Page(s) 023221, ISSN 2643-1564
Publisher: Americal Physical Society
DOI: 10.1103/physrevresearch.4.023221

Size driven barrier to chirality reversal in electric control of magnetic vortices in ferromagnetic nanodiscs
Author(s): W. A. S. Aldulaimi, M. B. Okatan, K. Sendur, M. C. Onbasli, and I. B. Misirlioglu
Published in: Nanoscale, Issue 2, 2022, Page(s) 707-717, ISSN 2040-3372
Publisher: Royal Society of Chemistry
DOI: 10.1039/d2nr02768b

All-Optical Control of Magnetization in Quantum-Confined Ultrathin Magnetic Metals
Author(s): Zanjani, Saeedeh Mokarian; Naseem, Muhammad Tahir; Müstecaplıoğlu, Özgür Esat; Onbaşlı, Mehmet Cengiz
Published in: Scientific Reports, Issue 1, 2021, ISSN 2045-2322
Publisher: Nature Publishing Group
DOI: 10.1038/s41598-021-95319-6

Stabilization and adiabatic control of antiferromagnetically coupled skyrmions without the topological Hall effect
Author(s): Rawana Yagan, Arash Mousavi Cheghabouri, Mehmet C. Onbasli
Published in: Nanoscale Advances, Issue 5, 2023, Page(s) 4470-4479, ISSN 2516-0230
Publisher: Royal Society of Chemistry
DOI: 10.1039/d3na00236e

Engineered Magnetization Dynamics of Magnonic Nanograting Filters
Author(s): Rawana Yagan, Ferhat Katmis, Mehmet C. Onbaşlı
Published in: Magnetochemistry, Issue 3 June 2021, 2021, ISSN 2312-7481
Publisher: MDPI
DOI: 10.3390/magnetochemistry7060081

Thesis and dissertations (3)

Chiral and Linear Spin Structures in 2D Nanostructured Magnonics
Author(s): Rawana Yagan
Published in: Issue July 13, 2023, 2023, Page(s) 1-212
Publisher: Koç University

Magnetic anisotropy control in rare earth iron garnet thin films for spintronic devices and all-optical ultrafast manipulation of magnetization
Author(s): Saeedeh Mokarian Zanjani
Published in: Issue July 2021, 2021, Page(s) 1-206
Publisher: Koç University

Micromagnetic Modeling and Demonstration of Wide Bandwidth and Ultralow Power Skyrmion- based Spintronic Devices and Circuits
Author(s): Arash Mousavi Cheghabouri
Published in: Issue June 23, 2023, 2023, Page(s) 1-175
Publisher: Koç University

Book chapters (1)

Theory and Modeling of Spintronics of Nanomagnets
Author(s): Mehmet C. Onbasli, Ahmet Avsar, Saeedeh Mokarian Zanjani, Arash Mousavi Cheghabouri, Ferhat Katmis
Published in: Fundamentals of Low Dimensional Magnets, Issue 29 August 2022, 2022, Page(s) 1-18, ISBN 9781003197492
Publisher: CRC Press
DOI: 10.1201/9781003197492-17

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