

Magnonics II: From Fundamentals to Applications

Workshop Program

Sunday, 7 August

15:00 – 17:00 Registration

17:00 – 17:30 Opening

17:30 – 18:30 Plenary talk- S. Maekawa “Non-Equilibrium Magnons, Spin Current and Spin Seebeck Effect”

19:00 – 20:30 Welcome cocktail

Monday, 8 August

Magnonic Excitations in Nanomagnets I (Chairperson: Muniz)

09:00 - 09:30 talk 1. D. Mills “Spin Excitations and Spin Relaxation in Subnanoscale Ferromagnets”

09:30 - 10:00 talk 2. G. de Loubens “Identification and selection rules of the spin-wave eigen-modes in a normally magnetized nano-pillar”

10:00 – 10:30 talk 3. R. Hicken “Bottom Up Magnonics: Dipolar Interaction of a Pair of Nanoscale Magnetic Disks”

10:30 – 11:00 coffee break

Magnonic Crystals I (Chairperson: Nikitov)

11:00 – 11:30 talk 4. G. Melkov “Nonlinear magnonic crystal based on a planar array of magnetic dots”

11:30 - 12:00 talk 5. Y. Filimonov “Spin-wave excitations in magnonic crystals”

12:00 - 14:00 lunch

Spin-wave Phenomena and Devices I (Chairperson: Demokritov)

14:00 - 14:30 talk 6. A. Serga “Magnon gases and condensates”

14:30 - 15:00 talk 7. M. Wu "Manipulation of spin waves in yttrium iron garnet thin films through interfacial spin scattering"

15:00 - 15:30 talk 8. J. Kirschner "Magnon and phonon excitation at the Fe(100)/O surface by scattering of spin-polarized electrons"

15:30-16:00 coffee break

Spin-wave Phenomena and Devices II (Chairperson: Slavin)

16:00 – 16:30 - talk 9. A. Kirilyuk "The role of angular momentum in ultrafast magnetization dynamics"

16:30 - 17:00 – talk 10. V. Novosad "Dynamics of spin vortices: from physics to cancer therapy"

17:00 – 17:30 - talk 11. M. Münzenberg "Photo-magnonics"

18:30 – Free time

Tuesday, 9 August

Magnonic Crystals II (Chairperson: Sommer)

09:00 - 09:30 talk 1. D. Grundler "Spin wave propagation in magnonic crystals made from nanopatterned permalloy"

09:30 - 10:00 talk 2. G. Gubbiotti "Controlling spin wave propagation in planar Magnonic Crystal"

10:00 – 10:30 talk 3. V. Kruglyak "Magnonics beyond magnonic crystals: Magnonic meta-materials and devices"

10:30 – 11:00 coffee break

Magnonic Excitations in Nanomagnets II (Chairperson: Egues)

11:00 - 11:30 talk 4. B. Heinrich "Spin pumping at ferromagnet (Fe,YIG)/normal metal (Au,Ag) interfaces and spin transport in Au and Ag films"

11:30 - 12:00 talk 5. Shuichi Murakami "Theory of rotations of magnon wavepacket and magnon Hall effect"

12:00 - 14:00 lunch

14:00 - 16:30 **POSTER SESSION**

16:30 - **FREE**

Wednesday, 10 August

Novel Materials and Phenomena (Chairperson: Arias)

09:00 - 09:30 talk 1. B. Kalinikos "Microwave phenomena in planar ferrite-ferroelectric heterostructures: Theory and applications"

09:30 - 10:00 talk 2. Z. Celinski "Magnetic Materials For On-Wafer Microwave Devices"

10:00 – 10:30 talk 3. Y. Fetisov "Microwave magnetoelectric interactions in multiferroic structures and novel devices"

10:30 – 11:00 coffee break

Magnon Caloritronics (Chairperson: Azevedo)

11:00 - 11:30 talk 4. I. Krivorotov "Thermally-assisted nonlinear dynamics of a nanomagnet excited by spin transfer torque"

11:30 - 12:00 talk 5. S.M. Rezende " Amplification of spin waves by the spin seebeck effect"

12:00 - 14:00 lunch

Spin Transfer Nano-Oscillators (Chairperson: Sang-Koog Kim)

14:00 - 14:30 talk 6. J. Grollier "Spin transfer dynamics in vortex based oscillators"

14:30 - 15:00 talk 7. U. Ebels "Analysis of non-linear parameters of spin torque driven excitations"

15:00 - 15:30 talk 8. J. Akerman "Nano-contact spin torque oscillator based magnonic building blocks"

15:30-16:00 coffee break

Magnon Spintronics (Chairperson: Rezende)

16:00 - 16:30 talk 9. V. Demidov "Control of spin-wave emission characteristics of spin-torque nano-oscillators"

16:30 - 17:00 talk 10. R.D. McMichael "Using magnons to probe spintronic materials properties"

17:00 - 17:30 talk 11. B. Hillebrands "Magnon Spintronics"

17:30 – CLOSING