

Sunday February 4th, 2018

	room	Session: Tutorials Session chair: <i>Ermanno Cardelli</i>
17:15	Van Gogh	Vito Puliafito Post-processing of magnetic signals by means of Fourier, Wavelet and Hilbert-Huang Transforms
17:45		Marijan Beg Computational micromagnetics with JOOMMF
18:15		Jonathan Leliaert Micromagnetic simulations with MuMax3
18:45		Stefano Bonetti Terahertz spin dynamics



Monday February 5th, 2018

8:00		Registration				
8:15						
	Gogh	Session: Plenary Session chair: <i>Nora Dempsey</i>				
8:30 8:45	Ivan Schuller Hybrid magnetic heterostructures					
9:00		Break				
	Chagall room	Session: Materials for energy Session chair: <i>Franca Albertini</i>	Van Gogh room	Session: Spin orbit torque and skyrmions Session chair: Joo Von Kim		
9:15	hag	Nora Dempsey	Go	Andrei Slavin		
9:27	O	High performance hard magnetic films	Van	Generation of THz-frequency oscillations in canted antiferromagnets		
9:39		Jordi Sort		Sergej Demokritov		
9:51		Voltage-induced coercivity reduction in nanoporous alloy films and patterned structures: a boost towards energy-efficient magnetic actuation		Excitation and control of propagating spin waves by pure spin current		
10:03		Anas Eldosouky The use of SPS technique for the production of high coercivity recycled SmCo ₅ magnet prepared by HD process		Johan Åkerman Long-range mutual synchronization of spin torque and spin Hall nano-oscillators		
10:15		Elvina Dilmieva Direct and indirect study of phase transitions in Heusler alloys in high magnetic field up to 14 T				
10:27				Marijan Beg Stable magnetic singularity in helimagnetic nanostructures containing boundary between grains with different chirality		
10:45		Coffee break				
	Chagall room	Session: Materials for energy Session chair: <i>Victorino Franco</i>	Van Gogh room	Session: Spin orbit torque and skyrmions Session chair: Eduardo Martinez		
11:00	Chag	Jia Yan Law A new quantitative criterion to determine the order of thermomagnetic phase transitions	Van Go	Mathias Kläui Spin – Orbitronics: chiral spin structure dynamics due to spin-orbit effects		



11:12	Chagall room	Francesca Casoli Investigating the magnetization process of Ni-Mn-Ga films with different types of microstructure	Van Gogh room	
11:24		Cinzia Beatrice Magnetic loss decomposition in Codoped Mn-Zn ferrites.	Van G	Olivier Boulle Room temperature chiral magnetic skyrmions in ultrathin magnetic
11:36		Carlo Appino Magnetic losses in non-oriented steel sheets under generic two-dimensional flux loci: prediction and measurements		nanostructures
11:48		Nora Leuning Effect of grain size and magnetic texture on iron-loss components in NO electrical steel at different frequencies		Joo-Von Kim Skyrmion dynamics in ultrathin ferromagnetic films driven by spin-orbit torques
12:00		Morgan Almanza Comparison between thermomagnetic and thermoelectric generators		
12:12				
12:30		Lunch		
	Chagall room	Session: Non destructive evaluation and tests, magnetic shielding and electromagnetic compatibility Session chair: Antonio Faba	Van Gogh room	Session: Micromagnetic modelling and spintronics Session chiair: Mario Carpentieri
14:00 14:12	C	Antonio Laudani On the effective permeability estimation of a composite materials for the shielding of low frequency magnetic field		Massimiliano d'Aquino Hysteretic synchronization in magnetic vortex spin-torque nano-oscillators
14:24		Marco Dionigi Ferrite material in wireless power transfer systems: performances prediction and EMC assessment		Vivek Kumar Magnetic antiskyrmions above room temperature in tetragonal Heusler materials
14:36		Hari Rimal Performance study of ferrite core inductor to mitigate lightning indirect effects		Israa Medlej Skyrmion based random bit generator
14:48		Simone Quondam Antonio Non invasive testing for electrical steels with Goss orientation		Marek Frankowski Analysis of stability diagram of perpendicular magnetic tunnel junctions
15:00		Chiaki Uyeda Separation of diamagnetic & paramagnetic particles realized in µ g condition using a field distribution produced by a small niobium magnetic circuit		Mykola Dvornik Nucleation of dissipative solitons in constriction-based spin Hall nano-oscillators



15:12	Chagall room	Alexandr Stupakov Microscale magnetization dynamics in soft ferromagnetic materials	Gogh room	Marco Asa Accessing antiferromagnetism in metallic thin films through anomalous Hall effect
15:24	Chag	Szymon Gontarz Identification of magnetomechanical phenomena in a degradation process of dynamically loaded steel elements	Van Go	Alberto Brambilla Magnetic properties of the C ₆₀ /Fe(001) spinterface interfaced with two- dimensional oxides
15:36		Evgenii Golygin Thermal effect on the magnetoelastic properties of amorphous Fe-based metal ribbons treated by acid		Christian Rinaldi The impact of reversible spin texture in ferroelectric GeTe
15:48		Miroslaw Witos Metal magnetic memory effect in non- destructive tests		
16:00		Galina Kurlyandskaya Magnetic and microwave properties of Fe ₂₀ Ni ₈₀ magnetic nanoparticles with close to zero magnetostriction		
16:15		Coffee break		
	Chagall room	Session: Magnetic levitation and bearings Session chair: Antonino Musolino	Van Gogh room	Session: Micromagnetic modelling and spintronics Session chair: Riccardo Bertacco
16:45 16:57	Chag	Bruno Dehez Recent progress in electrodynamic magnetic bearing	Van Go	Vittorio Basso Non equilibrium thermodynamics of the spin Seebeck and spin Peltier effects
17:09		Hyeong-Joon Ahn Nonlinear control of One DOF magnetic levitation system using feedback linearization		Farzad Nasirpouri Electrodeposited compositionally graded and diameter modulated magnetic nanowires for spintronic devices
17:21		Joachim Van Verdeghem Optimisation and comparison of axial flux and radial flux electrodynamic thrust bearings		Lindor Diallo Fe-implanted 6H-SiC study by Atom Probe Tomography (APT): Elaboration of diluted magnetic semiconductors at room temperature
17:33		Xingnan Liu Comparison of calculation and experiment of electromagnetic force for a large axial electromagnetic bearing		Alessandra Manzin Magnetic antidot arrays for frequency- based detection of magnetic beads
17:45		Tianpeng Fan Theory and experiments of unbalance response analysis of an active magnetic bearing controlled rotor		Sergey Dickmann Super-long-living spin excitations in a purely electronic two-dimensional gas
17:57		Mousa Lahdo Optimized PID controller for a 6-DoF magnetic levitation positioning system		Vladimir Gavrichkov Superexchange theory in magnetic semiconductors with a variable spin under optical pumping

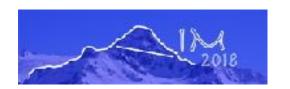


18:09	Chagall room	Virginie Kluyskens Design and experimental testing of a heteropolar electrodynamic bearing	Van Gogh room	Daniele Gastaldo Growth and magnetic characterization of germanium manganese Quantum Dots			
18:21		Zhe Sun Nonlinear dynamics analysis of rotoractive magnetic bearings system	Van Go	S. Shanmukharao Samatham Structural and magnetic properties of Gd ₅ Sb ₃			
18:33		Mikhail Nikolaev Dynamics of a flexible vertical rotor on active magnetic bearings during seismic disturbances		Yulia Krasnikova AFMR in noncollinear antiferromagnet Mn ₃ Al ₂ Ge ₃ O ₁₂			
18:45		Alessandro Carpenito Investigation on the effect of unbalanced actions to the dynamic response of experimental superconducting magnetically levitated bogie		Jitendra Singh XRR and XMCD investigation of 120 MeV Ag8+ ion irradiation in Fe/MgO/Fe multilayer			
18:57				Andrey Svalov Structure and magnetic properties of Tb-Co/Ti and Tb-Co/Al ₂ O ₃ multilayers			
19:15		Dinner					
	Gogh room	Session: Young researchers Session chair: <i>Manuel Vazquez</i>					
20:30	Gogh	Martina Ahlberg Droplet solitons in magnetic nanowires					
20:50	Van	Felix Büttner Isolated skyrmions in a ferromagnet: from fu	ındar	mentals to room temperature applications			
21:10		Marek Frankowski Voltage and current-driven dynamics of magnetic tunnel junctions					
21:30		Daniele Pinna Skyrmion gas manipulation for unconvention	niele Pinna yrmion gas manipulation for unconventional computing				
21:50		Riccardo Tomasello Theoretical study of skyrmion stationary behavior and dynamics					
22:10							



Tuesday February 6th, 2018

8:00		Registration		
8:15				
	Chagall room	Session: Spin orbit torque and skyrmions Session chair: Riccardo Tomasello	Van Gogh room	Session: Micromagnetic modelling and spintronics Session chair: Vito Puliafito
8:30 8:42		Mihai Miron Magnetic origami	Van Go	Riccardo Bertacco Reconfigurable metamaterials for spin computing
8:54		Takahiro Moriyama Spin torque switching of antiferromagnets		Elena Semenova Numerical prediction of the functionality window for a stripe cross (an intersection) as a key element in magnetic logic devices and multiturn sensors
			room	Session: Biomedical applications Session chair: <i>Serena Fiocchi</i>
9:06			ogh	Horst Hahn
	Chagall room	Session: Materials for energy Session chair: <i>Jordi Sort</i>	Van Gogh room	Controlling magnetism by electrochemical approaches
9:18	gall	Victorino Franco		
9:30	Cha	Thermal hysteresis of magnetocaloric materials: methods for their characterisation		Vincenzo Camisa Effects of occupational exposure to electromagnetic fields (EMFs) in healthcare facilities
9:42		Manuel Vazquez Domain structure and magnetisation reversal in multisegment cylindrical nanowire		Valerio De Santis A novel magnetic field sensor for the compliance with EMF Directive 2013/35/EU
9:54				Akikatsu Fujimura The analysis of an AC electromagnetic field for hemodynamics in human subjects
10:06		Virgil Provenzano Novel magnetic behavior observed in polycrystalline NdCo₅ compound and Gd₀₀Co₂₅Fe₁₅ alloy subjected to a magneto-thermal protocol		Claudio Grassi Adult neurogenesis-dependent spatial learning and olfactory memory are enhanced by extremely low-frequency electromagnetic fields in mice
10:18		Simone Fabbrici Ni-Mn-In Heusler alloys showing both direct and inverse magnetocaloric effect for room temperature magnetic refrigeration		Teresa Castelo-Grande The fate of nanomaterials



10:30		Coffee break		
10:45				
	Chagall room	Session: Micromagnetic modelling and spintronics Session chair: Giovanni Carlotti	Van Gogh room	Session: Magnetic recording and magnetic memories Session chair: Francesca Casoli
11:00	hag	Gianfranco Durin		Lucian Prejbeanu
11:12	0	Domain wall dynamics and creep phenomena in CoFeB/MgO structures	Van	Ultrafast MRAM concepts for cache applications
11:24		Eduardo Martinez Micromagnetic analysis of the current driven domain wall motion along exchange-coupled ferromagnetic bi-layers		Gilles Gaudin SOT-MRAM: an ultra-fast, infinitely endurant, non-volatile Memory
11:36		Gianluca Gubbiotti Toward three-dimensional magnonic		
11:48		crystals		Pirat Khunkitti A novel detection technique for electromagnetic interference induced playback signal distortion in CPP-GMR read heads
12:00		Valery Pokrovsky Bose-Einstein condensation of magnons in ferromagnetic films		Dimitris Kechrakos Exchange-bias effect in surface-oxidized ferromagnetic nanowires with polycrystalline shells
12:15		Lunch		
13:30				
13:45	Gogh	Posters		
15:00	Van G	Session chair: Cinzia Beatrice		
15:30	>			
	Chagall room	Session: Magnetic microscopy and imaging Session chair: Marco Coïsson		
16:00	hag	Volker Neu		
16:12	O	Quantitative MFM – probing magnetization structures on the nanoscale		
16:24		Marcus Wyss Imaging the magnetic stray field of an artificial chiral spin ice system		



	тоот		тоот	Session: Biomedical applications Session chair: <i>Alessandra Manzin</i>
16:36	Chagall room	Sukhvinder Singh Evolution of stripe domains in ferromagnetic thin films	Van Gogh room	Salvador Pané Small-scale robots with magnetoelectric capabilities
16:48		Thomas Blon Size-specific spin configurations in Fe nanocubes probed by Magnetic Electron Holography and micromagnetic simulations: from flower to vortices	2	
17:00		Joachim Gräfe X-Ray microscopic observation of spin wave focussing by a Fresnel lens		Eva Pellicer Electrodeposition of trisegmented magnetic nanowires with antiparallel
17:12		Dileep Misra Low temperature high magnetic field magnetic force microscopic study in epitaxial La _{5/8-y} Pr _y Ca _{3/8} MnO ₃ thin film		alignment and zero magnetization
17:24		Gabriele Barrera Imaging magnetisation processes in Fe ₇₈ Si ₉ B ₁₃ thin films with perpendicular anisotropy by magnetic force microscopy		Sergey Erokhin Optimizing permanent magnets system for a magnetic targeted drug delivery
17:36		Taylan Güneş The magnetic and magneto-optical effects of laser cutting and spark eroding in electrical steels		Riccardo Ferrero Modeling and experimental analysis of the hysteresis losses of magnetic nanodisks for hyperthermia applications
	Chagall room	Session: Mathematical modelling for hysteresis Session chair: Massimiliano d'Aquino		
17:48	Chag	Alexander Moskvin Weak ferrimagnets with competing Dzyaloshinskii-Moriya coupling are perspective for the exchange-bias effect materials		Luis Gómez RGD-functionalized magnetite nanoparticles for magnetic hyperthermia as a treatment for colon cancer
18:00		Benedikt Schauerte Flexible extension of hysteresis models for magnetic anisotropy		Umberto Zanovello An invisibility coat to reduce RF-artefacts in Magnetic Resonance Imaging
18:12		Michael Ortner A semi-analytical model of a closed-core planar fluxgate structure		Serena Fiocchi Deep transcranial magnetic stimulation for the addiction treatment: electric field distribution modeling
18:24				
18:36				
19:00		Conference dinner		



Wednesday February 7th, 2018

8:00		Registration		
8:15				
	Chagall room	Session: Magnetic recording and magnetic memories Session chair: Gaspare Varvaro	Gogh room	Session: FORC-based identification techniques Session chair: Vittorio Basso
8:30	Chag	Pedram Khalili Pushing the limits of energy efficiency and scaling in spintronics: voltage-control,	Van Go	Felix Groß FORC based interaction strength investigations in permalloy micro arrays
8:42		spin-orbit torques, and microwave dynamics in magnetic tunnel junctions		Alexandre Pierrot FORC measurements and simulations in ultrahigh density arrays of single-crystal nanowires
8:54		Christoph Vogler Heat-assisted magnetic recording - recent progress and future perspectives of		Laurentiu Stoleriu FORC diagrams identification of magnetization time dependent effects
9:06	micromagnetic modeling		Erik Ilse Grain size dependent FORC investigations on rare earth based permanent magnets	
9:18		Kevin O'Grady Heat assisted magnetic recording using exchange bias		Alexandru Stancu Vectorial FORC-based measurement designed for probing anisotropy in multi- component ferromagnetic systems.
9:30				Alexandru Stancu Magnetic relaxation effect on FORC-type measurement of 1D chains of Ising- Preisach hysteron systems.
			ogh room	Session: Spin orbit torque and skyrmions Session chair: Gianfranco Durin
9:42		Nuttapon Chaidaungsri An experimental study of background interference impact on signal-to-noise ratio in heat assisted magnetic recording	Van Go	Eduardo Martinez Dynamics of chiral magnetic patterns under spin orbit torques
	Chagall room	Session: Electrical machines and other electromagnetic devices Session chair: Antonio Laudani		
9:54	Chag	Taylan Güneş 2-D static magnetic simulation of flux density distribution in transformer cores by ANSYS		



10:06	Chagall room	Khadija Sofi Electromagnetic pulse generator: analytical and numerical study of Lorentz force in tube crimping operation	Gogh room	Mario Carpentieri Ultra high sensitivity induced by the injection locking in spin-transfer torque diode
10:18	Ch	Luke Guinane High-Frequency Losses in Micro-Scaled Inductors and Transformers	Van (Boris Gross Néel-type skyrmions in multiferroic lacunar spinels – Mapping out a stability phase diagram using dynamic cantilever magnetometry
10:30		Stefano Palumbo Friction effect on output power delivered from a Fe-Ga rod based vibrational transducer equipped with a ferromagnetic yoke		Alexander Samardak Enhanced spin orbit effects in ultrathin magnetic films with nanoscale engineered structural broken inversion symmetry
10:42		Gregor Buettel Occurrence and control of domain-wall resonance in thin-film giant magneto-impedance sensors		Marek Frankowski Spin Hall angle in W/CoFeB/Pt trilayers
10:54		Paweł Janik Magnetic field sensors overview and example application in helmet mounted cueing system		Pavel Stremoukhov Spin pumping and probe in permalloy dots-topological insulator bilayers
11:06				Michele Ruggeri Nonlinear dynamics of magnetic skyrmions
11:30		End of conference		



Posters, Tuesday February 6th, 2018, 13:45 – 16:00 *Van Gogh room*

P01	Evgeni Frishman The interaction forces in magnetic suspension systems of vertical type (MSVT)
P02	Praveen Vir Possibility of tuning the size of Antiskyrmions in Mn _{1.4} PtSn with Iridium doping
P03	Yuliia Gusieva Phase shift of spin waves traveling through the interface with broken spatial inversion symmetry
P04	Abdallah Oumsalem Using electronic and magnetic properties of Heusler compounds to build a new generation of electronic devices
P05	Mikhail Zagrebin First-principles and Monte Carlo investigations of the magnetic properties of (Co,Ni)CrIn Heusler alloys
P06	Yadira Silveira Effect of different application protocols of a static magnetic field of 47.23 mT in cultures of Chlorella vulgaris
P07	Iordana Astefanoaei Temperature field in the Magnetic Hyperthermia
P08	Federica Celegato Au-coated Ni ₈₀ Fe ₂₀ nanodisks for biomedical applications
P09	Federica Celegato Solid-state dewetting of FePd thin films into magnetic nanoparticles
P10	Vito Puliafito Magnetization dynamics in an antiferromagnetic layer: a micromagnetic approach
P11	Ko-Wei Lin The effects of magnetic field annealing on structural and magnetic properties of ion-beam deposited [Mn/Bi] multilayered thin films
P12	Victor Los Kinetics of electrons in layered nanostructures
P13	Ilari Rissanen Magnetic friction of disordered out-of-plane magnetized thin film systems
P14	Anna Giordano Multi-Node approach for setting a full micromagnetic framework - PETASPIN
P15	Sergey Malkin Calculation and experimental study of current regulators of current amplifier: three-stable hysteresis and PWM controller
P16	Bulaievska Maryna Biogenic magnetic nanoparticles in representatives of kingdom Fungi
P17	Alona Duduk Comparative characteristics of biogenic magnetic nanoparticles in plant, fungi and animal organisms



P18	Miroslaw Witos Quantitative and qualitative analysis of magnetic Barkhausen noise
P19	Miroslaw Witos Selecting transformer sheets with the method of low-frequency impedance
P20	Maxence Van Beneden Comparison between optimized topologies of permanent magnet thrust bearings with induced pole
P21	Vladyslav Chumachenko Programing simulation of high-gradient magnetic separation process based on cylinder-ball model of separator
P22	Sergey Marenkin Phase transitions in the Cd-Ge-As system
P23	Irina Fedorchenko ZnAs ₂ —MnAs system phase diagram creation
P24	Wala Dizayee Magneto-Optics Properties of Graphite and Graphene
P25	Alexander Gerber Hall effect spintronics for gas detection
P26	Farzad Nasirpouri Morphology, structure and first order reversal curve (FORC) studies of nickel nanoparticles electrodeposited on TiO ₂ nanotube arrays
P27	Mario Carpentieri A hybrid Memristor/MTJ simulation framework for nano-oscillator devices
P28	Guillermo Kindelán Effect of the magnetic field on the dissolution of kidney stones
P29	Prachi Mohanty Giant exchange bias properties in "314 –type" Oxygen-vacancy ordered materials
P30	Oksana Busel Boundary conditions at the interface of finite thickness between ferromagnetic and antiferromagnetic
P31	Vladimir Sokolovskiy Magnetic and magnetocaloric properties of Pd ₂ MnZ (Z=Ga, As, Sb) Heusler alloys: theoretical study
P32	Gabriele Barrera Hysteresis losses and specific absorption rate measurements in magnetic nanoparticles for hyperthermia applications
P33	Sang-Bok Lee Effect of pretreatment on magnetic nanoparticles growth on graphene surface and electromagnetic shielding performance in electroless plating
P34	Marius Volmer Experimental and micromagnetic characterization of exchange biased structures for sensing applications



Mathilde Stübner Magneto-electrodeposition and characterization of Co-doped ZnO thin films
Oleg Rabinovich Influence of MnAs size-effect on thermal and magnetostructural transformation in MnAs-ZnGeAs ₂ alloys
loana Firastrau Numerical investigation of the magnetization dynamics of a perpendicular polarizer- perpendicular free layer spin transfer torque nano-oscillator
Francesco Riganti-Fulginei Vector Hysteron Model Implementation for 2-D dynamic hysteresis loops
Francesco Riganti-Fulginei A New Dynamic Parameterization Of the Jiles-Atherton Model
Mislav Trbušić Nonlinear analysis of the magnetic liquid free surface deformation in 3D space
Jacek Dybała Non-destructive evaluation of stress in carbon steel based on magnetic methods
Jai-Lin Tsai Magnetic switching behavior of granular FePt(BN,Ag,C) films
Paulo Augusto Decontamination of wastewater and leachates by magnetic particles
Alessandro Formisano Field computation in presence of magnetic materials using semi-analytical formulae
Benjamin Podmiljsak Tailored metal injection moulding of isotropic NdFeB hard magnets based on recycled powders with and without Nd-additions
Jaejin Lee Bit error rate comparison of island patterns for bit-patterned media recording
Sara Carcangiu Rotational magnetization modeling by using a Tabu Search approach
Alexander Kamantsev Electromagnetic waves emitted in VO ₂ at metal-dielectric phase transition
Zhizhou Zhang A mass adaptive control of an airborne inertial stabilized platform using magnetic bearings
Alexey Ognev Crystal structure dependent magnetic properties of self-organized Co nanostrips probed by FORC technique
Oksana Pavlukhina Modeling of the magnetic and structural properties of Fe-Rh-Co and Fe-Rh-Pt by first principles method
Roberto Zivieri Non-reciprocal spin-wave propagation in spin-Hall oscillators: a two-dimensional analytical model



P53	Saïda Bahamida Structural and magnetic properties of the A1 to L1 ₀ transformation in polycrystalline Fe ₅₆ Pd ₄₄ alloy thin films produced by thermal evaporation technique
P54	Giovanni Carlotti Robustness of majority gates based on nanomagnetic logic
P55	Giovanni Carlotti Waveguides as short-wavelength spin wave sources for magnonic signal processing
P56	Alan Molinari Voltage-controlled on/off magnetism of La _{1-x} Sr _x MnO ₃ using an ionic liquid