

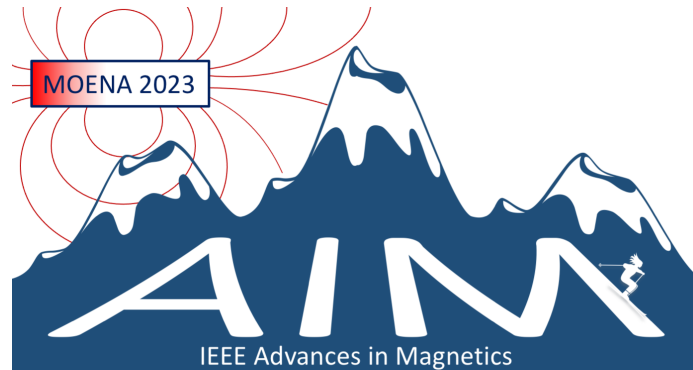
SCIENTIFIC PROGRAM OF

4th IEEE INTERNATIONAL CONFERENCE ON

ADVANCES IN MAGNETICS

IEEE AIM 2023

15th-18th JANUARY 2023 MOENA, ITALY



IEEE AIM 2023 ORGANIZATION COMMITTEE

Conference Program

15th January 2023

<i>Registration</i>	from 15:00
<i>Tutorial</i>	16:00 - 17:15
<i>Session I A & B</i>	17:15 - 18:20
<i>Welcome Reception</i>	18:30

16th January 2023

<i>Registration</i>	from 08:00
<i>Opening</i>	08:45 - 09:00
<i>Session II A & B</i>	09:00 - 10:20
<i>Coffee break</i>	10:20 - 10:40
<i>Plenary Session I</i> Prof. Oliver Gutfleisch	10:40 - 11:40
<i>Session III A & B & C</i>	11:40 - 13:00
<i>Lunch & Poster Session I</i>	13:00 - 14:00
<i>Session IV A & B & C</i>	14:00 - 16:00
<i>Coffee break</i>	16:00 - 16:20
<i>Session V A & B</i>	16:20 - 18:30

17th January 2023

<i>Registration</i>	from 08:00
<i>Session VI A & B</i>	08:30 - 10:20
<i>Coffee break</i>	10:20 - 10:40
<i>Plenary Session II</i> Prof. Jordi Sort	10:40 - 11:40
<i>Session VII A & B</i>	11:40 - 13:00
<i>Lunch & Poster Session II</i>	13:00 - 14:00
<i>Session VIII A & B</i>	14:00 - 15:40
<i>Coffee break</i>	15:40 - 16:00
<i>Session IX A & B</i>	16:00 - 17:20
<i>Session X A & B</i>	17:20 - 18:20
<i>Social Dinner</i>	from 19:00

18th January 2023

<i>Registration</i>	from 08:00
<i>Session XI A & B</i>	08:40 - 9:40
<i>Session XII A & B</i>	09:40 - 10:40
<i>Coffee break</i>	10:40 - 11:10
<i>Session XIII A & B</i>	11:10 - 12:30
<i>Conference Closing</i>	12:30

Sessions

Tutorial

15th Jan 16:00 – 17:15

Chairs: G. Varvaro and F. Casoli

Curvilinear micromagnetism: from fundamentals to applications by *Denys Makarov*

Session I A (oral)

15th Jan 17:15 – 18:20

Magnetism in geometrically curved and mechanically flexible surfaces 1

Chair: G. Varvaro

- IEEEAIM-1099 Resolving magnetism in geometrically curved surfaces by X-ray photoemission electron microscopy (invited) presented by *F. Kronast*
 - IEEEAIM-1109 Magnetic phase diagrams and helicity control of reversal modes in ferromagnetic nanotubes presented by *O. Iglesias*
 - IEEEAIM-1117 Curvature-induced Tilt and pinning in CrOx/Co/Pt corrugated strips presented by *J. Fernandez-Roldan*
-

Session I B (oral)

15th Jan 17:15 – 18:20

Additive Manufacturing of Magnetic Materials 1

Chairs: P. Tiberto and A. Bollero

- IEEEAIM-1018 Fabrication of SrFe₁₂O₁₉ based filaments with polyphenylene sulphide (PPS) for additive manufacturing of hard magnetic materials (invited) presented by *B. Podmiljsak*
 - IEEEAIM-1167 Development of MnAlC / hydrogel inks for fabricating alternative permanent magnets by bonding and 3D-printing technologies presented by *E. Palmero*
-

Session II A (oral)

16th Jan 09:00 – 10:20

Additive Manufacturing of Magnetic Materials 2

Chairs: P. Tiberto and A. Bollero

- IEEEAIM-1190 Additive Manufacturing of rare earth permanent magnets (invited) presented by *L. Sorana*
 - IEEEAIM-1194 Additive manufacturing of a massive amorphous soft magnetic rotor bearing an intricate 3D-geometry (invited) presented by *I. Gallino*
 - IEEEAIM-1119 Selective laser melting of large soft-magnetic amorphous components presented by *L. Thorsson*
 - IEEEAIM-1185 Magnetocaloric parts prepared by additive manufacturing: synthesis, microstructure and functionality presented by *V. Franco*
-

Session II B (oral)

16th Jan 09:00 – 10:20

Magnetic Levitation and Bearings and Electrical Machine Modeling 1

Chairs: A. Musolino and L. Sani

- IEEEAIM-1208 Magnetic Levitation in Fractional-Horsepower Drives (invited) presented by *W. Gruber*

-
- IEEEAIM-1058 **Comparison of lightweight permanent magnet arrays and high-temperature superconductive coils as excitation systems for air-cored long-stator linear synchronous motors** presented by *T. Hofmann*
 - IEEEAIM-1204 **Use of MagnetoRheological Fluids for Electromagnetic Applications** presented by *A. Musolino*
-

Plenary Session

16th Jan 10:40 – 11:40

Chairs: F. Albertini and S. Fabbrici

Prof. Oliver Gutfleisch presents *Advanced magnetic materials for efficient energy, transport and cooling applications*

Session III A (oral)

16th Jan 11:40 – 13:00

Antiferromagnetic Spintronics 1

Chairs: V. Puliafito and A. Kimel

- IEEEAIM-1017 **Theory of antiferromagnetic terahertz-frequency signal-processing devices (invited)** presented by *A. Slavin*
 - IEEEAIM-1060 **Coherent sub-terahertz spin pumping from an insulating antiferromagnet (invited)** presented by *E. Del Barco*
 - IEEEAIM-1211 **Electrical manipulation and readout of magnetic order in metallic antiferromagnets: Perspectives for memory and computing devices(invited)** presented by *K. Pedram*
 - IEEEAIM-1126 **Spin-current-driven Bloch line in an antiferromagnet as an analog of a fluxon in a long Josephson junction** presented by *R. Khymyn*
-

Session III B (oral)

16th Jan 11:40 – 13:00

Spintronics-based computing

Chair: D. Rodriguez

- IEEEAIM-1102 **Unconventional computing using topological spin structures (invited)** presented by *M. Klaeui*
 - IEEEAIM-1188 **Non-volatile and volatile resistive switching in complex oxide interfaces for neuromorphic functionalities (invited)** presented by *T. Banerjee*
 - IEEEAIM-1213 **Design and application of CMOS-compatible and high performance spintronic diodes in both ferro and antiferromagnets (Invited)** presented by *G. Finocchio*
 - IEEEAIM-1066 **Ferroelectric control of the spin-charge conversion for ultralow power spintronics** presented by *J.-P. Attane*
-

Session III C (oral)

16th Jan 11:40 – 13:00

Artificial Intelligence, machine learning and Soft-Computing

Chair: F. Riganti Fulginei

- IEEEAIM-1193 **Machine learning methods in computational micromagnetism (invited)** presented by *L. Esl*

-
- IEEEAIM-1019 **Machine learning based identification of magnetization states in large-scale nano-ellipses arrays** presented by *H. Brueckl*
 - IEEEAIM-1034 **Machine learning approaches for magnetic nanoparticles applications in biomedicine** presented by *M. Coisson*
-

Session IV A (oral)

16th Jan 14:00 – 16:00

Magnetic Measurements 1

Chair: **B. Tellini**

- IEEEAIM-1074 **Time-resolved X-ray magnetic laminography for the investigation of magnetodynamical processes in three-dimensions** presented by *S.Finizio*
 - IEEEAIM-1078 **Low-cost electronics for miniaturized NMR spectrometers** presented by *G.Baumgarten*
 - IEEEAIM-1106 **All-optical spin injection in silicon revealed by element specific time-resolved Kerr effect** presented by *S. Laterza*
 - IEEEAIM-1111 **Comparison of measurement systems for thermal noise magnetometry of magnetic nanoparticles** presented by *K. Everaert*
 - IEEEAIM-1120 **Requirements on a metrology infrastructure for characterization of magnetic nanomaterials** presented by *P. Kyri*
 - IEEEAIM-1162 **Assessment of the State of Charge of a Li-ion battery cell via magnetic field measurement** presented by *B. Tellini*
 - IEEEAIM-1016 **Hysteresis branch crossings, negative Barkhausen jumps, and inverted hysterons** presented by *S. Mathews*
-

Session IV B (oral)

16th Jan 14:00 – 16:00

Magnetism in geometrically curved and mechanically flexible surfaces 2

Chair: **F. Kronast**

- IEEEAIM-1085 **Towards the geometrical control of domain wall dynamics in 3D curved nanostructures (invited)** presented by *S. Gomez*
- IEEEAIM-1127 **Creating arbitrary magnetization landscapes in corrugated magnetic films and waveguides (invited)** presented by *M. Urbanek*
- IEEEAIM-1096 **Magneto-optical investigation of 3D-curved toroidal ferromagnetic thin films** presented by *C. Janzen*
- IEEEAIM-1097 **Tailoring the magnetization processes of chemically modulated cylindrical nanowires** presented by *L. Perez*
- IEEEAIM-1048 **Magnetic hysteresis of individual Janus particles with hemispherical exchange biased caps** presented by *M. Claus*
- IEEEAIM-1057 **Proof-of-Concept of Magnetic Mobile Robot for Curved Surfaces** presented by *Y. W. Park*

Session IV C (oral)

16th Jan 14:00 – 16:00

Converters, materials, devices and algorithms for Wireless Power Transfer in mobility applications

Chairs: A. Trivino Cabrera and F. Corti

- IEEEAIM-1150 **Vehicle-driven control scheme for a misalignment-tolerant bidirectional inductive power transfer system** presented by *F. Lopez*
- IEEEAIM-1159 **Effective electrical model of a can of soda as foreign object in EV wireless charger** presented by *A. Trivino Cabrera*
- IEEEAIM-1180 **Selective Wireless Power Transfer System with Multiple Loads based on loads Resonant Frequencies** presented by *V. Bertolini*
- IEEEAIM-1181 **An Active Variable Reactance for Wireless Power Transfer** presented by *F. Corti*

Session V A (oral)

16th Jan 16:20 – 18:30

Spin Waves and Magnonics 1

Chairs: S. Tacchi and P. Pirro

- IEEEAIM-1206 **Magnonic devices as hardware accelerators for neuromorphic computing (invited)** presented by *G. Csaba*
- IEEEAIM-1035 **Three-dimensional nanoscale imaging of propagating spin waves via time-resolved X-ray Laminography** presented by *D. Girardi*
- IEEEAIM-1037 **Magnetic nanopatterning of YIG films via direct laser writing for magnonics** presented by *V. Levati*
- IEEEAIM-1055 **All-optical generation and time-resolved polarimetry of magneto-acoustic resonances via Transient Grating spectroscopy** presented by *P. Carrara*
- IEEEAIM-1114 **Thermal laser patterning of YIG structures for magnonics** presented by *A. Del Giacco*
- IEEEAIM-1135 **Spin waves emission caused by critical domain wall dynamics in almost compensated ferrimagnets** presented by *R. Khymyn*
- IEEEAIM-1146 **Topological spin-wave edge modes in a moiré magnonic cryst** presented by *M. Madami*

Session V B (oral)

16th Jan 16:20 – 18:30

Magnetic Materials for Energy Applications 1

Chairs: F. Albertini and N. Dempsey

- IEEEAIM-1215 **The use of hydrogen to recycle rare earth magnets (invited)** presented by *A. Walton*
- IEEEAIM-1025 **Evidence of robust half-metallicity in strained LCMO films** presented by *G. M. Vinai*
- IEEEAIM-1036 **Detection of hydrogen in thin films through resonant neutron reflectometry via a magnetic layer** presented by *S. Puetter*

-
- IEEEAIM-1047 **Electric field control of magnetization reversal in FeGa/PMN-PT** presented by *G. Pradhan*
 - IEEEAIM-1059 **Optimising the performance of materials found in a high-throughput search for rare-earth-free permanent magnets** presented by *A. Vishina*
 - IEEEAIM-1101 **The Magnetocaloric effect in Fe-based Laves phase (Hf,Ti)Fe₂** presented by *Q. Shen*
 - IEEEAIM-1103 **Magnetic shape memory Heuslers for low-grade heat harvesting** presented by *L. Gallo*
-

Session VI A (oral)

17th Jan 08:30 – 10:20

Magnetism in geometrically curved and mechanically flexible surfaces 3

Chair: M. Urbanek

- IEEEAIM-1075 **Bistable molecular systems in electrospun polymer fibers** presented by *A. Pacanowska*
 - IEEEAIM-1007 **Magneto-mechanical properties of thin films on flexible substrate measured by in situ MOKE** presented by *H. Benmahmoud*
 - IEEEAIM-1011 **Thin film heterostructures based on Co/Ni synthetic antiferromagnets on polymer tapes: towards a sustainable flexible spintronics** presented by *M. Hassan*
 - IEEEAIM-1084 **Geometry-driven effects in curvilinear spin chains with antiferromagnetic exchange** presented by *O. Pylypovskyi*
 - IEEEAIM-1108 **Tunable magnetic equilibrium configurations in dipolar helices** presented by *O. Iglesias*
 - IEEEAIM-1006 **Strain and shape effect on magnetization dynamics in nanostructures** presented by *S. Chiroli*
-

Session VI B (oral)

17th Jan 08:30 – 10:20

Sensing and Harvesting devices employing multi-functional materials

Chairs: C. Visone and D. Davino

- IEEEAIM-1030 **Sub-nT detectivity in anisotropic magnetoresistances based on La_{2/3}Sr_{1/3}MnO₃ thin films (invited)** presented by *L. Mechin*
- IEEEAIM-1128 **A proof-of-concept thermomagnetic generator for the harvesting of low-grade waste heat (invited)** presented by *F. Cugini*
- IEEEAIM-1021 **Visible light effects on photostrictive/magnetostrictive PMN-PT/Ni heterostructure** presented by *D. Dagur*
- IEEEAIM-1137 **Room-temperature magneto-ionic control of ON-OFF ferromagnetism in bimetallic FeCo nitrides** presented by *Zheng Ma*
- IEEEAIM-1089 **Non-linear modeling of a multi-layer cantilever energy harvester in periodic steady state working conditions** presented by *D. Davino*
- IEEEAIM-1134 **Magnetic shape memory Heusler compounds: a class of multifunctional materials for harvesting and sensing applications** presented by *S. Fabbri*

Plenary Session

17th Jan 10:40 – 11:40

Chairs: V. Puliafito and E. Darwin

Prof. Jordi Sort presents *Electrostatic charging and magneto-ionics: a new paradigm for low power memory application and neuromorphic systems*

Session VII A (oral)

17th Jan 11:40 – 13:00

Biomagnetism and Biomedical Applications

Chairs: D. Ortega Ponce and A. Manzin

- IEEEAIM-1209 **Magnetorelaxometry Imaging: a promising tool for the monitoring of nano-particle-based cancer therapies in humans (invited)** presented by *D. Baumgarten*
 - IEEEAIM-1104 **Engineering and in-phantom testing of an RF applicator for electromagnetic hyperthermia** presented by *R. Ferrero*
 - IEEEAIM-1170 **Estimating the heating and its spatial distribution of complex nanoparticle aggregates for magnetic hyperthermia** presented by *D. Ortega Ponce*
 - IEEEAIM-1179 **Skin-conformal magnetoreceptors human-machine interaction** presented by *P. Makushko*
-

Session VII B (oral)

17th Jan 11:40 – 13:00

Spin-orbit Torque

Chair: M. Coisson

- IEEEAIM-1210 **Spin-orbit torque in epitaxial metals and oxides for field-free magnetization switching (invited)** presented by *S. Karube*
 - IEEEAIM-1092 **Spin-charge interconversion in Tellurium-based chalcogenides** presented by *S. Teresi*
 - IEEEAIM-1133 **Non volatile electric control of Spin-Orbit Torques in Metal/SrTiO₃-based Two-Dimensional Electron Gases** presented by *P. Sgarro*
 - IEEEAIM-1077 **A spin transfer torque magnetic tunnel junction implemented as a magnetic sensor** presented by *H. Nicolas*
-

Session VIII A (oral)

17th Jan 14:00 – 15:40

Antiferromagnetic Spintronics 2

Chairs: V. Puliafito and A. Kimel

- IEEEAIM-1063 **Coherent spin-wave transport in an antiferromagnet (invited)** presented by *D. Afanasiev*
- IEEEAIM-1012 **Ultrafast manipulation of magnetization in antiferromagnets (invited)** presented by *U. Staub*
- IEEEAIM-1027 **Electrical manipulation of antiferromagnetic domains in Mn₂Au and CuMnAs thin film devices (invited)** presented by *S. Reimers*
- IEEEAIM-1039 **Molecules on magnetic surfaces: hardening effects** presented by *I. Bergenti*

-
- IEEEAIM-1042 **Propagation of nearly single cycle terahertz pulse in antiferromagnetic CoF2** presented by *T. Metzger*
-

Session VIII B (oral)

17th Jan 14:00 – 15:40

Spin Waves and Magnonics 2

Chairs: S. Tacchi and P. Pirro

- IEEEAIM-1200 **Pattern recognition with magnons (invited)** presented by *K. Schultheiss*
 - IEEEAIM-1153 **Low-loss nanoscopic spin-wave guiding in continuous YIG films** presented by *L. Flajsman*
 - IEEEAIM-1160 **Surface acoustic waves and ferromagnetic resonance in iron thin films: impact of spin waves dispersion** presented by *L. Christienne*
 - IEEEAIM-1177 **Coupling between magnetism and lattice in Quasi-2D vanadium trihalides** presented by *K. Carva*
 - IEEEAIM-1028 **Ferromagnetic resonance in single and multi-layered crescent-shaped ferromagnetic nanorods** presented by *H. Reshetniak*
-

Session IX A (oral)

17th Jan 16:00 – 17:20

Skyrmions 1

Chairs: R. Tomasello and E. Darwin

- IEEEAIM-1002 **Tuning the coexistence regime of incomplete and tubular skyrmions in ferro/ferri/ferromagnetic trilayers (invited)** presented by *A. Mandru*
 - IEEEAIM-1003 **Non-equilibrium heating path for the laser-induced nucleation of metastable skyrmions (invited)** presented by *C-F. Oksana*
 - IEEEAIM-1046 **Phase coexistence and transitions between anti- and ferromagnetic states in a synthetic antiferromagnet** presented by *C. Barker*
 - IEEEAIM-1043 **Breathing modes of skyrmion strings in a synthetic antiferromagnet** presented by *C. Barker*
-

Session IX B (oral)

17th Jan 16:00 – 17:20

Numerical Modeling and Micromagnetics 1

Chair: A. Manzin

- IEEEAIM-1100 **Recent activities on the applications of machine learning in micromagnetics (invited)** presented by *A. Kovacs*
- IEEEAIM-1186 **flatspin: A Large-Scale Artificial Spin Ice Simulator (invited)** presented by *J. Jensen*
- IEEEAIM-1086 **Finite-element micromagnetic modeling of spin-wave propagation with the open-source package TetraX** presented by *A. Kakay*
- IEEEAIM-1105 **Modelling of magnetic nanoparticle clusters and effects on hyperthermia properties** presented by *R. Ferrero*

Session X A (oral)
Magnetic Materials for Energy Applications 2
Chairs: F. Albertini and N. Dempsey

17th Jan 17:20 – 18:20

- IEEEAIM-1144 **Searching for competitive magnetocaloric high-entropy alloys? Get off the beaten path!** (invited) presented by *J.Y. Law*
- IEEEAIM-1121 **A high throughput study of the effect of element substitution in hard magnetic CeCo5-based thin films** presented by *Y. Hong*
- IEEEAIM-1125 **A new approach in the implementation of insulating layers in Soft Magnetic Composite materials** presented by *E. Poskovic*

Session X B (oral)
Magnetic Levitation and Bearings and Electrical Machine Modeling 2
Chairs: A. Musolino and C. Simonelli

17th Jan 17:20 – 18:20

- IEEEAIM-1083 **Bearingless Axial-Force/Torque Motor with Reduced Number of Power Switches** presented by *W. Gruber*
- IEEEAIM-1132 **Energy-based high frequency oscillation control of linear drives** presented by *L. Lahniger*
- IEEEAIM-1203 **Design of a Multidisk Axial Flux Motor for Lightweight Unmanned Aerial Vehicles** presented by *A. Musolino*

Session XI A (oral)
Numerical Modeling and Micromagnetics 2
Chair: A. Manzin

18th Jan 08:40 – 09:40

- IEEEAIM-1107 **Normal modes description of nonlinear magnetization dynamics in micro-magnetic systems** (invited) presented by *S. Perna*
- IEEEAIM-1069 **Analytic approach to the Stoner-Wohlfarth model** presented by *C. Appino*
- IEEEAIM-1214 **Many-Particle Quantum Hydrodynamics Method in the Tasks of Theoretical Description of the Magnetoelectric Effect in the Multiferroics Type II** presented by *M. Trukhanova*

Session XI B (oral)
Skymions 2
Chairs: R. Tomasello and E. Darwin

18th Jan 08:40 – 09:40

- IEEEAIM-1196 **Non-collinear three-dimensional textures in magnetic multilayers: Hatching of skyrmionic cocoons** (invited) presented by *N. Reyren*
- IEEEAIM-1004 **Over 1 km/s Current Induced Skyrmion Motion in Synthetic Antiferromagnets without Skyrmion Hall Effect** presented by *O. Boulle*
- IEEEAIM-1056 **Skyrmion dynamics in ring-shaped synthetic antiferromagnetic racetracks** presented by *D. Kehrakos*

Session XII A (oral)

18th Jan 09:40 – 10:40

Magnetism in geometrically curved and mechanically flexible surfaces 4

Chair: D. Makarov

- IEEEAIM-1076 **Magnetism and structure of convex and concave FePd systems produced by unconventional lithography methods** presented by *A. Zarzycki*
- IEEEAIM-1166 **Non-local chirality breaking in curvilinear nanoarchitectures** presented by *O. Volkov*
- IEEEAIM-1090 **Micromagnetic modelling of magnetic nanodisks and nanorings for hyperthermia applications** presented by *A. Manzin*

Session XII B (oral)

18th Jan 09:40 – 10:40

Antiferromagnetic Spintronics & Spintronic-based Computing

Chairs: V. Puliafito and D. Rodriguez

- IEEEAIM-1195 **Spin Hall nano-oscillator based Ising machines for combinatorial optimization (invited)** presented by *J. Akerman*
- IEEEAIM-1008 **Anatomy of spin and charge pumping in THz spintronics unravelled by quantum-classical approach: Example of ultrafast-light-driven Weyl antiferromagnet Mn₃Sn** presented by *B. Nikolic*
- IEEEAIM-1009 **Ultrafast Amplification and Nonlinear Magnetoelastic Coupling of Coherent Magnon Modes in an Antiferromagnet** presented by *S. Bonetti*

Session XIII A (oral)

18th Jan 11:10 – 12:30

Magnetic Materials for Energy Applications 3

Chairs: F. Albertini and N. Dempsey

- IEEEAIM-1136 **Controlling the martensitic microstructure, magnetic and magnetothermal properties of Ni-Mn-Ga thin films** presented by *F. Casoli*
- IEEEAIM-1112 **Mechanically resistant ferrite-based magnets for a greener future** presented by *P. Jenus*
- IEEEAIM-1161 **Flexible, Free-Standing Gadolinium Thick Film For Energy Conversion Applications** presented by *M. Lo Bue*
- IEEEAIM-1022 **Integration of hard magnetic layer in MEMS process** presented by *F. Maspero*

Session XIII B (oral)

18th Jan 11:10 – 12:30

Magnetic Measurements 2

Chair: B. Tellini

- IEEEAIM-1131 **Integrated Low Cost Eddy Current Sensor for Oscillatory Actuators** presented by *F. Poltschak*
- IEEEAIM-1140 **Magnetic quality control of magnetic nanoparticle synthesis using magnetic particle spectroscopy** presented by *P. Kyri*

-
- IEEEAIM-1164 **Temperature and angular peculiarities of the EPR spectra of the PbTe (Mn, Cu) in the X and Q-band** presented by *A. Shestakov*
 - IEEEAIM-1175 **Assessment of the anisotropy of magnetomechanical symptoms caused by the direction of steel rolling for the purpose of material stress evaluation** presented by *S. Gontarz*
-

POSTER SESSION 1

Chairs: F. Casoli and E. Darwin

- IEEEAIM-1000 **Competing Interactions, and magnetization dynamics in Doped Rare-earth Manganites nanostructural system** presented by *W.Hussain*
- IEEEAIM-1023 **Static and microwave properties of FeTiB films as a function of the phase-structural state and magnetic structure** presented by
- IEEEAIM-1033 **Application of active thermography for the study of losses in components produced by Laser Powder Bed Fusion** presented by *M. Quercio*
- IEEEAIM-1038 **Investigation of nanostructures based on Cr_2O_3 for the application in organic antiferromagnetic spintronics** presented by *A.Brambilla*
- IEEEAIM-1050 **Highly tunable spin Hall magnetoresistance in room-temperature magnetoelectric multiferroic, $\text{Sr}_3\text{Co}_2\text{Fe}_2\text{O}_4$ —Pt hybrids**
- IEEEAIM-1064 presented by *A. Shestakov* **Composition and thickness dependent magnetic properties of Co/Co-Tb bilayers**
- IEEEAIM-1067 **Magnetic patterning of Co/Ni systems by plasma oxidation** presented by *P. Kuswik*
- IEEEAIM-1080 **Magnetic properties of FeGa/Kapton for flexible electronics** presented by *F. Celegato*
- IEEEAIM-1081 **Exploration in new room temperature magnetocaloric materials: structure and magnetocaloric properties in $\text{Mn}_5(\text{Si,P})\text{B}_2$ compounds** presented by *H.Hamutu*
- IEEEAIM-1098 **Antiferromagnetic spin chains: ground states and phase transitions in static magnetic field of arbitrary direction** presented by *O. V. Pylypovskyi*
- IEEEAIM-1115 **Magnonic band structures of CoFeB and CoFeB/Ta/NiFe meander-shaped films** presented by *G.Gubbiotti*
- IEEEAIM-1124 **Spin-wave propagation along curved magnets** presented by *G.Pradhan*
- IEEEAIM-1142 **Symmetry-enforced Dirac points and suppression of Zeeman splitting in antiferromagnetic semiconductors**
- IEEEAIM-1147 **Antiferromagnetic topological insulator MnBi_2Te_4 : point defects and their influence on the Dirac cone gap** presented by *M.Otrokov*
- IEEEAIM-1148 **Soft X-ray Spectroscopy Study of the Magnetic Anisotropy Transition in Co-substituted $\text{Mn}_{3-x}\text{Co}_x\text{Ga}$ Heusler Films**
- IEEEAIM-1157 **Study on room temperature multiferroicity of BaFe_2O_4** presented by *M.Casappa*
- IEEEAIM-1163 **Skyrmion hosting multilayers based on synthetic antiferromagnets**
- IEEEAIM-1169 **Magnetic and structural properties of Co-rich soft magnetic heterostructures** presented by *E.Pinzon*

-
- IEEEAIM-1173 **Pt/Py nanowires on thin YIG as spin-transfer-torque spin-wave emitters** presented by *F. Kohl*
 - IEEEAIM-1187 **Spin-to-charge conversion in perpendicular magnetic anisotropy multilayers** presented by *M. Yaqoob*
 - IEEEAIM-1191 **Time-dependent magnetometry for temperature measurement in magnetocaloric materials**
 - IEEEAIM-1197 **Reconstruction of the net magnetisation of a paleomagnetic sample from partial measurements of its magnetic field** presented by *D.Ponomarev*
 - IEEEAIM-1199 **Zero-field routing of spin waves in a multiferroic heterostructure** presented by *W. Zhu*
 - IEEEAIM-1217 **Traceability routes for magnetic measurements** presented by *M. Coisson*
 - IEEEAIM-1218 **Hybrid magnonic and magnetic MEMS devices for reconfigurable magnonics** presented by *M. Cocconcelli*
 - IEEEAIM-1094 **Curvature-induced effects in dynamics of domain walls in chiral biaxial nanotubes**
 - IEEEAIM-1219 **Direct synthesis of the L1₀-FeNi alloy from cyano/nitrosyl-metal complexes** presented by *G. Varvaro*
 - IEEEAIM-1202 **Study of spin-reorientation and spin-phonon coupling in modified SmFeO₃**
 - IEEEAIM-1216 **Effect of powder particles surface smoothing on differential, reversible and irreversible permeability and quasi-static energy losses in compacted iron powder alloy** presented by *M. Tkac*
-

POSTER SESSION 2

Chairs: M. Quercio and L. Stoleriu

- IEEEAIM-1010 **Unbiased Control of Unsymmetric Radial Active Magnetic Bearings** presented by *M. Noh*
- IEEEAIM-1015 **Controlling magnetic anisotropy in nickel films on LiNbO₃** presented by *S. Mathews*
- IEEEAIM-1020 **Failure analysis of the hybrid passive magnetic bearing using Bayesian network** presented by *H.Hirani*
- IEEEAIM-1032 **Correlation between lattice distortion around Pd atom and magnetic properties for Pd-doped FeRh alloys** presented by *Takafumi Miyanaga*
- IEEEAIM-1049 **Design and analysis of novel cylindrical Lorentz force deflection magnetic bearings with double second air gap**
- IEEEAIM-1051 **Micromagnetic simulations as a tool for bottom-up explainability of FORC diagrams** presented by *L.Breth*
- IEEEAIM-1061 **Design Optimal PID Control of Magnetic Bearings in Ventricular Assist Devices Rotor Pump**
- IEEEAIM-1068 **Integrated Transverse Flux Magnetic Gear Motor** presented by *J.Dl.Alzingre*
- IEEEAIM-1072 **Magnetoresponsive devices with programmable behavior using a customized commercial stereolithographic 3D printer** presented by *G.Barrera*

-
- IEEEAIM-1087 **Curvilinear spin-wave dynamics beyond the thin-shell approximation** presented by *L Körber*
 - IEEEAIM-1088 **An early equivalent circuit of a magnetoelectric composites device** presented by *D.Davino*
 - IEEEAIM-1091 **In silico modelling of pre-clinical tests of magnetic hyperthermia** presented by *M. Vicentini*
 - IEEEAIM-1095 **FORC analysis of 2D-perpendicular arrays of mixtures of soft and hard magnetic wires** presented by *A.A.Domocos*
 - IEEEAIM-1110 **Taming the influence of dipolar interactions in nanoparticle assemblies for magnetic hyperthermia** presented by *O.Iglesias*
 - IEEEAIM-1122 **Effect of Ni addition on magnetic properties, glass forming ability, and thermally assessments of Fe-Si-B-Cr-C metallic glasses** presented by *A.Ghavimi*
 - IEEEAIM-1123 **Glass forming ability, thermal and magnetic properties of developed Fe-Si-B metallic glasses with the addition of Nb, Cr, C, and Cu** presented by *A.Ghavimi*
 - IEEEAIM-1145 **Topological boundary constraint in artificial magnetic colloidal ice** presented by *P.Tierno*
 - IEEEAIM-1152 **Modelling magnetic hysteresis through complex valued neural networks** presented by *G.M.Loizito*
 - IEEEAIM-1154 **Nonlinear magnetorelaxometry of magnetic nanoparticles with optically pumped magnetometers** presented by *A. Jaufenthaler*
 - IEEEAIM-1156 **The effect of aging on the temperature dependence in nanocrystalline materials** presented by *R.Saoudi*
 - IEEEAIM-1168 **Non-linear equivalent circuit model of magnetic devices under different frequencies excitation** presented by *G.M.Loizito*
 - IEEEAIM-1172 **Non-invasive registration of magnetic particles in a biological medium**
 - IEEEAIM-1158 **SS and LCC compensation system for SWPDT: comparative analysis** presented by *A. Trivino Cabrera*
 - IEEEAIM-1178 **Compensation Topologies for Capacitive Power Transfer for EV** presented by *A. Trivino Cabrera*
 - IEEEAIM-1176 **Characterization and processing of aged Nd-Fe-B powders from recycling routes** presented by *C.Dejulian*
 - IEEEAIM-1201 **Development of Co₂FeSn Heusler alloy films and nanocrystals for magnetic and magneto-optical applications**
 - IEEEAIM-1138 **Mimicking synaptic functionalities in magneto-ionic synapse for neuromorphic computing** presented by *Monalisha Peda*

Presentation Instructions

- Invited talk: the long is about 18 minutes plus 5 minutes for Q&A
- Oral presentation: the long is about 15 minutes plus 3 minutes for Q&A
- Poster presentation: there is no template for poster. The only recommendation is to use a portrait A0 (or smaller) format. We also suggest printing the poster on a single sheet for easy placement.