

YRinM Conference Program

7 November 2024

8:45 - 9:00 Registration

9:00 - 9:07 Opening Ceremony

Session 1: 9:07 - 10:55

9:07	José Luis Garrido	<i>Neutron Diffraction as a tool for Studying Magnetic Effects on RFe-based Intermetallic Alloys</i>	O1
9:20	Aun Nawaz	<i>Magnetostructural transition and magnetocaloric response in Mn(Fe)-Ni-Si(Al) alloys.</i>	O2
9:33	Leyre Bei Fraile	<i>Characterization of magnetic nanoparticle distributions on rigid substrates through radiofrequency techniques for biosensing applications</i>	O3
9:46	Deborah Liguori	<i>Exploring the High Magnetic Anisotropy of Cobalt-Ferrite Nanoparticles: Influence of Cation Composition</i>	O4
9:59	Jorge Vergara	<i>MnAl Alloy powder produced via ultrasonic atomization</i>	O5
10:12	Elisa Guisado-Arenas	<i>Novel low criticality Mn(Fe)Ni(Cu)Si high entropy alloys for magnetocaloric applications</i>	O6
10:25	Laura Álvaro	<i>Invited talk: Chirality, topology and timescales of magnetization dynamics in cylindrical nanowires</i>	

10:55-11:20 Poster Session and Coffee Break

Session 2: 11:20 - 13:10

11:20	Mariana Rios	<i>Effect of Fe-doping in $Ni_{35}Co_{13}Mn_{35-x}Fe_xTi_{17}$ melt spun-ribbons</i>	O7
11:33	Shirin Talebniya	<i>Magnetic Nanoparticles in Sensor Technology: DFT Analysis of Carbon Monoxide Adsorption on Fe_3O_4 Surfaces</i>	O8
11:46	Alix Tatiana Escalante	<i>Enhancing Magnetic Force Microscopy with FEBID-grown Nanotips</i>	O9
11:59	Clara Miranda	<i>Stacking engineering in orthogonally-twisted two-dimensional CrSBr magnets</i>	O10
12:12	Zhe Cui	<i>High-Throughput DFT Screening of MnMX Alloys for Magnetic Refrigeration Applications</i>	O11
12:25	Jorge Alejandro Lopéz	<i>Magnetic Nanostructures for Biomedical Applications</i>	O12
12:38	Jorge Marqués	<i>Invited talk: Advances imaging with non-standard Magnetic Force Microscopy</i>	

13:10-14:40 Lunch



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Session 3: 14:40 - 16:48

14:40	Yolanda Álvarez	<i>Influence of Chemical and geometrical modulations on magnetic properties of Co & Ni Bisegmented nanowires</i>	O13
14:53	Gloria Guerrero	<i>Influence of Polymer Matrix on the Manufacturability and Performance of Soft Magnetic Filaments for Additive Manufacturing</i>	O14
15:06	Andrés García	<i>Fabrication and characterization of Sm-based ThMn₁₂-type compounds for permanent magnet applications.</i>	O15
15:19	Elisa Herrera	<i>Fe₃O₄-TiO₂ nanophotocatalysis for water remediation applications</i>	O16
15:32	Santiago Ceballos	<i>Exploring Pd_{1-x}Fe_x alloy thin films and ribbons: a breakthrough in ultrasensitive and wireless hydrogen detection</i>	O17
15:45	Lina Vanessa	<i>Improving the magnetic properties of τ-MnAl by low Cu doping</i>	O18

15:58- 16:48 Pilar Marin and Susana Aberturas
Special Talk: *From basic research to technological transfer*

16:48 -17:40 Poster Session and Coffee Break

17:40- 18:00 Awards & Closing Ceremony



YRinM Poster Session

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Miguel Barquín	<i>Future perspectives on the evolution of graphene-magnetic nanoparticle hybrid structures as revealed by neutron scattering analysis</i>	P1
Leyre Bei Fraile	<i>Radiofrequency characterization of magnetic nanoparticle distributions on rigid substrates for biosensing applications</i>	P2
Moisés Gilberto Zarzoza	<i>Magnetic SAR calculations by using micromagnetic simulations and a simple model at different wave shapes.</i>	P3
Palmerina González	<i>Tailoring the properties of multifunctional hybrid compounds via molecular design.</i>	P4
Raúl López	<i>Expanding the nanomagnetism chart: Non-dipolar interparticle interactions and Non-exchange bias.</i>	P5
Inés Sánchez de Movellán	<i>Magnetic Insulators: a First-Principles Study of Superexchange Interaction.</i>	P6
Hamida Gouadria	<i>Synthesis and characterization of 2-dimensional chiral hybrid organic-inorganic metal halides</i>	P7
Adrián Fernández	<i>High-Coercivity Ferrite Nanocomposites without Critical Raw Materials</i>	P8
Enrique Conde	<i>Development and Optimization of Probes for Near-Field Microwave Microscopy in Magnetic Material Characterization.</i>	P9
Raquel Lorient	<i>Studying the Advanced Interaction of Magnetic Microwires and Ferrofluids for Breakthrough Biosensor Development</i>	P10
Pablo Martínez	<i>Magneto-thermoelectric energy harvesting through the Nernst Effect</i>	P11
Alba Martínez	<i>Intelligent magnetically activated drug delivery devices fabricated by 4D printing</i>	P12
Saioa Sierra	<i>Synthesis and characterization of Fe₃O₄-C nanoparticles as efficient nanoadsorbents</i>	P13
Elisa Herrera	<i>3D-printable composites for magnetic refrigeration based on Ni-Mn-In-Co magnetic shape memory alloys</i>	P14
Elisa Herrera	<i>Fe₃O₄-TiO₂ nanophotocatalysts for water remediation applications</i>	P15
Joep Van Deursen	<i>Magnetite nanoclusters for detection labels in magnetic lateral flow immunoassays</i>	P16
Ana Isabel Jiménez	<i>Magnetic Properties of Electroless-Plated Ni-based Rhombohedral Nanotubes</i>	P17
Manuel Horcajo	<i>Optimization of Magnetite Nanoparticles for Combined Hyperthermia</i>	P18
Alicia Gascón	<i>Temporal and spatial resolution of magnetosome degradation at the subcellular level in a 3D lung carcinoma model</i>	P19
Sedef Özel	<i>Innovative magnetic transduction methodology for DNA detection in liquids</i>	P20
José Ángel Fernández	<i>How Curvature-Induced Effects Emerging in Corrugated Strips can shape Magnetic Domain Walls</i>	P21
Rodrigo Cubero	<i>Tuning the magnetic properties of Fe-Co structures through the addition of B</i>	P22
Alba Sanz Prada	<i>Magnetic structure study of the ternary rare based TbFeSi</i>	P23

