



# The Italian Chapter of IEEE Magnetics Society, in collaboration with the University of Messina,

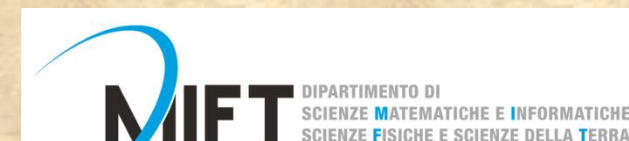
organizes

## New direction for magnetic and mechanical sensors

Aula Cannizzaro del Rettorato (Piazza Pugliatti), Messina (Italy) 24<sup>th</sup> - 26<sup>th</sup> February 2020

Speakers:

- Prof. Oscar Alejos**, University of Valladolid, Valladolid, Spain
- Dr. Luca Boarino**, INRIM Torino, Italy
- Prof. Caterina Ciminelli**, Politecnico of Bari, Italy
- Prof. Vincent Cros**, Unité Mixte de Physique CNRS/Thales, France
- Prof. Giovanni Finocchio**, University of Messina, Italy
- Prof. Thomas Hauet**, University of Lorraine, France
- Dr. Olivier Klein**, SPINTEC, CEA-Grenoble, CNRS, Université Grenoble Alpes, France
- Dr. Christian Rinaldi**, Politecnico of Milano, Italy
- Dr. Riccardo Tomasello**, Foundation for Research and Technology-Hellas, Greece
- Dr. Vito Puliafito**, University of Messina, Italy
- Dr. Pietro Davide Maddio**, University of Catania, Italy
- Prof. Rosario Sinatra**, University of Catania, Italy



Co-chairs:

- Prof. Francesca Garesci**  
University of Messina
- Dr. Luis Sánchez-Tejerina**  
Politecnico of Bari

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Scientific committee:

- Prof. Giovanni Finocchio (chair)**  
University of Messina
- Dr. Anna Giordano**  
National Institute of Geophysics and Vulcanology
- Prof. Mario Carpentieri**  
Politecnico of Bari
- Dr. Paola Tiberto**  
Istituto Nazionale di Ricerca Metrologica



# Workshop New direction for magnetic and mechanical sensors

## IEEE Magnetics Society (Italy Chapter)

Aula Cannizzaro del Rettorato, Messina (Italy), 24<sup>th</sup>-26<sup>th</sup> of February, 2020



### PROGRAM

#### Monday, 24<sup>th</sup> February



9:00 – 9:15	Welcome and Opening  Session Chair: <b>Luis Sánchez-Tejerina</b>
9:15– 9:45	<b>Prof. Vincent Cros</b> , Unité Mixte de Physique CNRS/Thales, France Physics and opportunities of skyrmions in multilayers
9.45 – 10:15	<b>Dr. Christian Rinaldi</b> , Politecnico of Milano, Italia Ferroelectric control of spin-to-charge conversion in GeTe
10:15 – 10:45	Coffee break
10:45 – 11:15	<b>Prof. Thomas Hauet</b> , University of Lorraine, France Magnetic properties of NiTi shape memory alloys and NiTi/Ni bilayers
11:15 – 11:45	<b>Dr. Riccardo Tomasello</b> , Foundation for Research and Technology-Hellas, Greece Skyrmion stabilization in magnetic multilayers
11:45 – 12:00	<b>Dr. Luca Boarino</b> , Istituto Nazionale di Ricerca Metrologica, Torino, Italia Nanofabrication by supra molecular self assembly: application in magnetism
12:00– 12:15	<b>Prof. Oscar Alejos</b> , University of Valladolid, Valladolid, Spain Application of the two sublattice model to the field-driven and current-driven domain wall dynamics in ferrimagnets
12:15– 12:30	<b>Prof. Vincent Cros - Round Table</b> Next directions in development of magnetic sensors





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## IEEE Magnetics Society (Italy Chapter)



Aula Cannizzaro del Rettorato, Messina (Italy), 24<sup>th</sup>-26<sup>th</sup> of February, 2020

### PROGRAM

#### Tuesday, 25<sup>th</sup> February



Session Chair: **Francesca Garesci**

9:00 – 9:30

**Dr. Olivier Klein**, SPINTEC, CEA-Grenoble, CNRS, Université Grenoble Alpes, France

Long range coupling of magnetic bi-layers by coherent phonons

9:30 – 10:00

**Prof. Caterina Ciminelli**, Politecnico of Bari, Italy

Optoelectronic miniaturized systems for sine-wave and chirped waveform generation in Ka-band

10:00 – 10:15

**Dr. Valentino Romano**, University of Messina, Italy

Graphene-based electrodes for high areal-performance supercapacitors

10:15 – 10:45

Coffee break

10:45 – 11:15

**Dr. Pietro Davide Maddio**, University of Catania, Italy

Virtual Biosensor for Medical Warning Precursors

11:15 – 11:45

**Dr. Vito Puliafito**, University of Messina, Italy

Micromagnetic approach for studying THz dynamics in antiferromagnetic spintronic oscillators

11:45 – 12:00

**Prof. Giovanni Finocchio**, University of Messina, Italy

Mass-in-mass periodic systems for the development of new mechanical devices

12:00 – 12:15

**Prof. Rosario Sinatra - Round Table** Next directions in development of mechanical sensors

12.15 -12.20

Closing



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**PROGRAM**



**Wednesday, 26<sup>th</sup> February**



9:00 – 11:30

**Visit to the Laboratory of the University of Messina**