

# AtC-AtG CONFERENCE PROGRAM

## 31 August 2022

### Opening session

UTC	CEST	JST	PDT	EDT
-00:15	01:45	08:45	16:45	19:45

### Session 1

UTC	CEST	JST	PDT	EDT
00:00	02:00	09:00	17:00	20:00

00:00	TBA	TBA	TBA
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00:45	Ekaterina DENGINA	Neural network prediction of nanodefects and magnetic anisotropy in FePt-X HAMR Media	Japan
01:00	María Soledad APREA	Magnetic properties of polycrystalline cylindrical Fe <sub>65</sub> Pd <sub>35</sub> nanowires	Argentina
01:15	Susant Kumar ACHARYA	Ionic liquid gating control of magnetic anisotropy in magnetic tunneling junction stacks	New Zealand
01:30	Adam G WHITNEY	Damping in STT-MRAM free layers at elevated temperatures	USA
01:45	McCoy Wei LIM	Current-induced nucleation of magnetic skyrmions in multilayered devices	Singapore

### Session 2

UTC	CEST	JST	PDT	EDT
02:00	04:00	11:00	19:00	22:00

02:00	Sen YAN	Extracellular magnetic labeling of mesenchymal stem cell spheroids with ferumoxytol for MRI tracking	China
02:15	Yuhua REN	Estimation of magnetic parameters from domain images with convolutional neural networks	Singapore
02:30	Esita PANDEY	Emergence of sizeable interfacial Dzyaloshinskii-Moriya interaction at Cobalt/Fullerene spinterface	India

02:45	Invited speaker: Lucy GLOAG	Design and synthesis of nanoparticle tracers for Magnetic Particle Imaging	Australia
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03:15	Poster session / Social activity (Gather.Town)
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## Session 3

UTC	CEST	JST	PDT	EDT
04:00	06:00	13:00	21:00	00:00

**04:00** *Invited speaker:*  
Se Kwon KIM *Topological spin transport in two-dimensional magnets* South Korea

<b>04:30</b>	Ming Sheng Nicholas TEY	<i>Hardware accelerated spiking neural networks based on zero-field skyrmions</i>	Singapore
<b>04:45</b>	Koustuv ROY	<i>Spin Pumping and Inverse spin Hall effect in Co<sub>3</sub>O<sub>4</sub></i>	India
<b>05:00</b>	Shaktiranjana MOHANTY	<i>Magnetization reversal and domain structures in perpendicular synthetic antiferromagnets prepared on rigid and flexible substrates</i>	India
<b>05:15</b>	Soumyaranjan RATHA	<i>Enhancement of magnetic properties by Lanthanides substitution in (Bi,L)(Fe,Co)O<sub>3</sub> (L = La, Nd, Sm, Gd, Dy, Er) multiferroic thin films</i>	Japan
<b>05:30</b>	Brindaban OJHA	<i>Excess velocity of domain walls in Pt/CoFeB thin films</i>	India
<b>05:45</b>	Michael DEREVYANKO	<i>Temperature dependence of electric impedance of the Cobalt-based soft magnetic wires near the ferromagnetic phase transition</i>	Russia

## Session 4

UTC	CEST	JST	PDT	EDT
06:00	08:00	15:00	23:00	02:00

<b>06:00</b>	Rajeswari ROY CHOWDHURY	<i>An alternative route for tuning unconventional Hall effect in layered ferromagnet Fe<sub>3</sub>(Ge,As)Te<sub>2</sub></i>	India
<b>06:15</b>	Ravindra MEENA	<i>Europium coated Mn doped Fe<sub>2</sub>O<sub>4</sub> nanoparticle for Magnetic hyperthermia: Synergistic strategy for cancer treatment and imaging</i>	India
<b>06:30</b>	César Leandro LONDOÑO CALDERÓN	<i>Magnetic vortex domain wall observation on iron-cobalt alloy nanowires growing on commercial aluminium</i>	Argentina

**06:45** *Invited speaker:*  
Peng SONG *Detection of 2D magnetic states with spin Hall effects* Singapore

**07:15** **Poster session / Social activity**  
(Gather.Town)

## Session 5

UTC	CEST	JST	PDT	EDT
08:00	10:00	17:00	01:00	04:00

**08:00** *Invited speaker:*  
Xichao ZHANG *Frustrated skyrmions and bimerons* Japan

08:45	Mona BHUKTA	<i>Room-temperature stabilization of skyrmionic surface-magnetic textures in synthetic antiferromagnets</i>	Germany
09:00	Anastasiia DRIAGINA	<i>Synthesis and magnetic properties of nanowires in thin-film anodic alumina</i>	Russia
09:15	Aijaz Hamid LONE	<i>Skyrmion based neuromorphic device with short- and long-term synaptic plasticity</i>	Saudi Arabia
09:30	Zilu WANG	<i>Field-free spin orbit torque switching of synthetic antiferromagnet through interlayer Dzyaloshinskii-Moriya interaction</i>	China
09:45	Sumit GHOSH	<i>Ultrafast optical generation of magnetic texture pairs</i>	Germany

## Session 6

UTC	CEST	JST	PDT	EDT
10:00	12:00	19:00	03:00	06:00

10:00	Luciano MAZZA	<i>Unconventional computing using spintronic oscillators</i>	Italy
10:15	Maarten Alexander BREMS	<i>Brownian reservoir computing realized using geometrically confined skyrmions</i>	Germany
10:30	Marta BRIOSCHI	<i>All-optical generation and time-resolved polarimetry of magneto-acoustic resonances via Transient Grating spectroscopy</i>	Italy

**10:45** *Invited speaker:*  
Claire DONNELLY *Visualising three-dimensional spin textures* Germany

**11:15** *Poster session / Social activity*  
(Gather.Town)

## Session 7

UTC	CEST	JST	PDT	EDT
12:00	14:00	21:00	05:00	08:00

**12:00** *Invited speaker:*  
**Mariia EFREMOVA** *Genetically controlled magnetic nanocompartments for cell manipulation - better than ferritin?* Netherlands

12:30	Lin LUO	<i>Microstructure and magnetocaloric effect of <math>Mn_{1.3}Fe_{0.6}P_{0.5}Si_{0.5}</math> microwires</i>	Spain
12:45	Gunasheel Kawtilyaa KRISHNASWAMY	<i>Time-dependent multistate switching of topological antiferromagnetic order in <math>Mn_3Sn</math></i>	Switzerland
13:00	Lionel PETIT	<i>Graphene Hall sensors for high performance magnetometry</i>	France
13:15	Javier HERMOSA	<i>3D magnetic structure of Py microstructures studied by vector tomography and micromagnetism</i>	Spain
13:30	Martín TESTA-ANTA	<i>Leveraging symmetry for an accurate spin-orbit torque quantification in ferrimagnetic insulators</i>	Spain
13:45	Sebastián Alejandro DÍAZ	<i>Steering Majorana braiding via skyrmion-vortex pairs: A scalable platform</i>	Germany

## Session 8

UTC	CEST	JST	PDT	EDT
14:00	16:00	23:00	07:00	10:00

14:00	Juan Diego AGUILERA	<i>Gas sensors using magnetic nanoparticles and spin waves</i>	Spain
14:15	Oliver James AMIN	<i>Antiferromagnetic half-skyrmions electrically generated and controlled at room temperature</i>	UK
14:30	Joanna WOLFF	<i>Optomechanics of magnetic van der Waals heterostructures</i>	France

**14:45** *Invited speaker:*  
**Alexander MOOK** *Interacting Topological Magnons* Germany

**15:15** **Poster session / Social activity**  
*(Gather.Town)*

## Session 9

UTC	CEST	JST	PDT	EDT
16:00	18:00	01:00	09:00	12:00

**16:00** *Invited speaker:*  
Miriam JAAFAR *Advances in magnetic force microscopy* Spain

16:45	Marco Antonio MORALES	$Mn_xFe_{3-x}O_4$ Nanoparticles for Magnetic Hyperthermia	Argentina
17:00	Alberto ANADÓN	Spin conversion in epitaxial monolayer graphene structures	France
17:15	TBA	TBA	TBA
17:30	Meg SMITH	Optimisation of perpendicular magnetic tunnel junction structures using scanning transmission electron microscopy	UK
17:45	Cody Alexander TREVILLIAN	Interferometry of Single Magnon Decoherence Mechanisms	USA

## Session 10

UTC	CEST	JST	PDT	EDT
18:00	20:00	03:00	11:00	14:00

18:00	Estela HERGUEDAS-ALONSO	Recovering 3D magnetization of 2D structures and multilayers	Spain
18:15	Soho SHIM	Unidirectional magnetoresistance in collinear-antiferromagnet/heavy-metal bilayers	USA
18:30	Matthew Ronald MCMASTER	Tuneable low magnetostrictive NiFe multilayers for high-frequency application	UK

**18:45** *Invited speaker:*  
Jennifer SEARS *Frustrated magnetism probed by x-ray scattering in the honeycomb magnet  $RuCl_3$*  USA

**19:15** Poster session / Social activity  
(Gather.Town)

## Session 11

UTC	CEST	JST	PDT	EDT
20:00	22:00	05:00	13:00	16:00

**20:00** *Invited speaker:*  
Gabriel LAVORATO *Hybrid magnetic nanoparticles: from synthesis to applications* Argentina

<b>20:30</b>	Sebastian Eduardo PASSANANTE	<i>Magnetocaloric effect in nanocrystalline manganite bilayer thin films</i>	Argentina
<b>20:45</b>	Robin KLAUSE	<i>Magnetic droplet solutions from exotic spin-orbit torques</i>	USA
<b>21:00</b>	Petro ARTEMCHUK	<i>Stabilization of a nonlinear spin wave bullet mode in the presence of a hot magnon gas</i>	USA
<b>21:15</b>	Fabiana Nakary MORALES	<i>Magnetocaloric effect of <math>\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_3</math> nanoparticles</i>	Argentina
<b>21:30</b>	Hannah BRADLEY	<i>Neuromorphic pattern recognition using antiferromagnetic artificial neurons</i>	USA
<b>21:45</b>	Cristóbal Ríos VENEGAS	<i>Dynamic origin of conical helix magnetization textures stabilized by Dzyaloshinskii-Moriya interaction</i>	Chile

## Session 12

UTC	CEST	JST	PDT	EDT
22:00	00:00	07:00	15:00	18:00

<b>22:00</b>	Josefina M SILVEYRA	<i>A new set of curves simplifies anhysteretic magnetization analysis</i>	Argentina
<b>22:15</b>	Santiago Antonio OSORIO	<i>Response of the chiral soliton lattice to spin polarized currents</i>	Argentina
<b>22:30</b>	Yeni Josefina SANCHEZ	<i>Magnetic and structural characterization of the <math>\text{FeIn}_{2y}\text{Cr}_{2-2y}\text{S}_4</math> (<math>0.6 \leq y \leq 1</math>) system</i>	UK
<b>22:45</b>	TBA	TBA	TBA
<b>23:00</b>	<b>Poster session / Social activity</b> (Gather.Town)		

**23:30** *Invited speaker:*  
Jean Anne INCORVIA *Using Magnetic Spin Textures for Cognitive Computing* USA

**24:00** **Parting words & Aftershow party**  
(Gather.Town)