



**IEEE
MAGNETICS**

NEWSLETTER

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SPECIAL ISSUE

Editor: Jia Yan Law

A showcase of the
creativity & collaboration of
our community as a vibrant
3D world, full of curiosity
and discovery.

Check out our special end-of-the-year issue !

We are excited to present a curated special issue, intentionally designed to showcase the creativity and collaboration of our community as a vibrant 3D world, full of curiosity and discovery. In these pages, familiar spaces transform into landscapes of ideas, exploration, and scientific adventure.

Inside, you'll find highlights from the students' workshop in Seville, where dynamic lectures and enthusiastic participation brought concepts to life; a student's journey beyond their comfort zone, showing the thrill of stepping into new realms of learning and discovery; a thoughtful personal note from our IEEE Magnetics Letters Chief Editor, sharing insights and experiences from his long editorial journey; and insights from magnetism in Ukraine, fascinating discoveries shaping the field. Alongside these featured stories, this edition also includes focused highlights from our chapters and students' experiences organizing outreach and magnetism-related conferences, offering a broader view of the creativity and energy that animate our community.

Looking ahead, our Newsletters will be published and released three times annually. This allows us to carefully curate each edition, ensuring every issue captures the energy, creativity, and vibrance of our community. Each newsletter will feature a unique design theme, highlighting the imagination and innovation that make our community so dynamic. Every edition will bring thoughtfully selected stories, highlights, and perspectives, showcasing the very best of our scientific and collaborative world.

We hope you enjoy this special edition, inviting you to explore, imagine, and experience the ideas, people, and connections that turn our familiar scientific world into something vibrant and full of possibility.

Jia Yan Law
Editor of IEEE Magnetics
Society Newsletter



Student intern
Zhonghao Chang



Associate Editor
for Industrial
Liaison
Brad Dodrill



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Editor
Jia Yan Law



Student intern
Ana Isabel Jimenez Ramirez



Associate Editor
Ravi Hadimani

From the President Ron Goldfarb



While becoming accustomed to writing 2026 instead of 2025, I want to thank the outgoing members of the Magnetics Society Administrative Committee who completed their tenure of three years. They are Giovanni Finocchio (University of Messina), Takeshi Kato (Nagoya University), Young Keun Kim (Korea University), Marcelo Knobel (University of Campinas), David A. Lowther (McGill University), Lucian Prejbeanu (CEA), Montserrat Rivas (University of Oviedo), and Masashi Shiraishi (Kyoto University).

Young Kim and David Lowther were reelected for 2026-2028, and joining them are newly elected AdCom members Alessandro Formisano (Università della Campania “Luigi Vanvitelli”), Min-Fu Hsieh (National Cheng Kung University), Pedram Khalili Amir (Northwestern University), Pedro Miguel Landeros Silva (Universidad Técnica Federico Santa María), Jia Yan Law (University of Seville), and Kumar Srinivasan (Sonera).

The next regular issue of the Magnetics Society Newsletter will report on our Senior Members who were recently elevated to IEEE Fellows, class of 2026. **The deadline for complete nominations for the Fellow class of 2027 is 7 February 2026.** For all the details, please see <https://www.ieee.org/membership/fellows/fellows-nomination>.

Three new Magnetics Society Distinguished Lecturers for 2026-2027 have been selected, complementing our three for 2025-2026. Read their abstracts and biographies in the next issue of the Newsletter and in a forthcoming issue of *IEEE Transactions on Magnetics*.



Looking Back, Moving Forward: Fifteen Years With IEEE Magnetics Letters

A Message from the Outgoing Chief Editor

Massimiliano d'Aquino

**Chief Editor 2020–2025
IEEE Magnetics Letters**

Dear IEEE Magnetics Society Members,

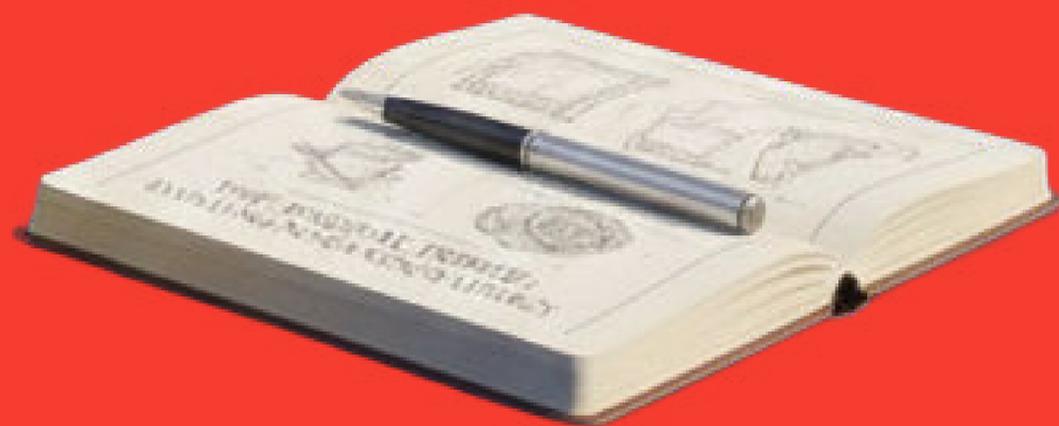
First of all, I hope this message finds you well.

I am writing to inform you that my term as Chief Editor of IEEE Magnetics Letters will end at the close of December 2025. This is certainly the right time to share some thoughts and to express my heartfelt thanks to all those who have contributed with their hard work over these years.

Indeed, it has been a long journey, actually beginning in 2011 when the founding Chief Editor Ron Goldfarb – currently President of the IEEE Magnetics Society (MagSoc) – whom I must publicly thank once again for trusting me all these years, invited me to join the Editorial Review Board (ERB) of the newly established MagSoc journal, IEEE Magnetics Letters that we affectionately use to call IML. Since then, I have served on the IML ERB until now, being appointed Senior Member in 2015, Associate Editor in 2016, Editor in 2019, and Chief Editor from 2020 to 2025 (reappointed for the maximum of two terms, totaling six years of consecutive service, according to the IEEE MagSoc Operations Manual).

Over these fifteen years, I have had the opportunity to learn so many things and to work closely with many wonderful colleagues, at all levels, always with the spirit of providing a thorough, serious, and reliable service to the Magnetics Community, which is both our duty and our pleasure.

In particular, as IML Chief Editor, I had the privilege of coordinating the joint efforts of a fantastic editorial team – the IML ERB – which now counts more than eighty people collaborating from all over the world. Among all the exciting results of such collaboration, we shared the pleasure and satisfaction of IML being recognized multiple times by IEEE TAB’s Periodicals Committee as a ‘high performer’ among journals in the first quartile for short times for both submission-to-first decision (SUB2FD) and submission-to-publication (SUB2OP) since 2022, particularly being in Q1 for SUB2FD in 14/14 quarters (with slightly more than 3 average weeks from submission to the first decision for each manuscript) and even for SUB2OP in 9/14 quarters. This healthy state of the art has also been satisfactorily certified by the latest independent monitoring report assessed by the IEEE TAB Periodicals Review and Advisory Committee (PRAC).



For these reasons, my warmest and heartfelt thanks go to the IML Editors and Members of the Editorial Review Board, who have provided their excellent service continuously and without interruption, even during very challenging times worldwide, such as during the COVID-19 pandemic, which, fortunately, we now have behind us.

Among those I feel the need to thank, there are certainly the (past and current) MagSoc VP Publication Chairs, Petru Andrei and Tom Thomson, the MagSoc past Presidents Masahiro Yamaguchi and Atsufumi Hirohata, the IEEE Transactions on Magnetics Editor-in-Chief Amr Adly, the MagSoc Newsletter Editor Jia Yan Law, and the whole MagSoc AdCom, who all supported me trustfully and unconditionally. It has been a real pleasure collaborating with you!

Last but not least, I want to thank the people at IEEE staff dedicated to IML, our journal assistant Kristen Cignavitch and Journals Production Manager George Criscione, who provided qualified technical management and professional editing for all the articles that IML processed over these years.



At the end of such a long, challenging, but pleasant journey, it is so nice to look back for a moment to preserve the memories of all the fantastic experiences I had the honor and privilege to share with you. Looking ahead, I am confident that all the work done will provide a solid foundation for the future of the journal.

In this respect, I would like to warmly wish good luck to the next IML Chief Editor, Montserrat Rivas, recently appointed by the Publications Chair and confirmed by MagSoc AdCom and starting her service in January 2026. I truly feel I am leaving the journal in very good hands.

I conclude by expressing my gratitude once again to all those in IEEE MagSoc with whom I have collaborated over the years, and simply say that the Community can count on me at any time.

again to all those in IEEE MagSoc with whom I have collaborated over the years, and simply say that the Community can count on me at any time.

My warmest wishes to everyone for a joyful and prosperous 2026!

for a joyful and prosperous 2026!

Yours,
Massimiliano d'Aquino

Chief Editor 2020–2025,
IEEE Magnetics Letters





IEEE MAGNETICS SOCIETY
INTERMAG 2026
MANCHESTER | 13-17 APRIL 2026



Researchers from around the globe with an interest in all aspects of magnetism and magnetic materials are invited to **Manchester, U.K.** for the IEEE International Magnetism Conference (INTERMAG 2026).

The conference will take place **13 – 17 April 2026** and will cover the latest research across the broad spectrum of fundamental and applied magnetism.

IMPORTANT DATES

Digest Submission Deadline (Early Decision for Visa) - **December 5 2025**

Early Decision Notifications Sent (Early Submission by Dec. 5) - **December 12 2025**

Digest Submission Deadline - **January 9 2026**

Best Student Presentation Award Application Deadline - **January 9 2026**

Author Notifications Sent - **February 13 2026**

www.intermag2026.org

 **IEEE**
MAGNETICS



Starting Out, Staying Open

Zhonghao Chang

PhD Student @ University of
Seville, Spain

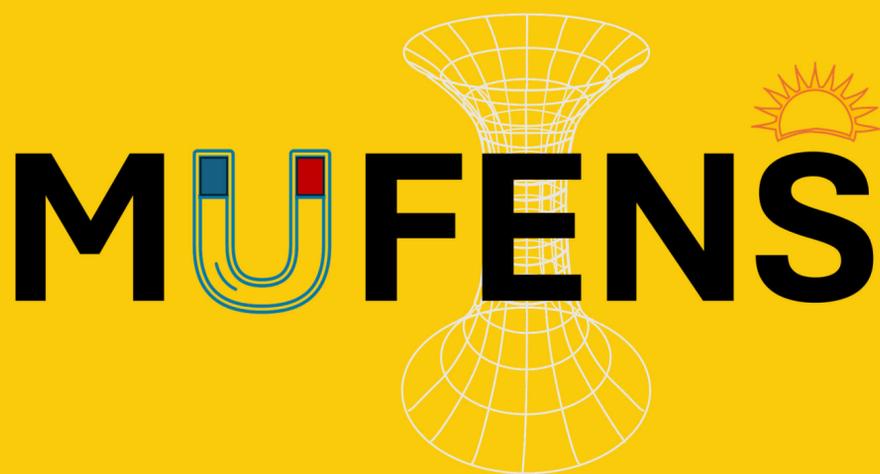
Student intern at IEEE Magnetics
Society Newsletter
Editorial Team

My name is Zhonghao Chang, and I believe that science knows no borders. My academic path has been a journey of continuous exploration—starting from my roots in Shanxi, China, to earning my degrees at Shenyang Jianzhu University and Chongqing University. My early career included industrial internships in China Academy of Building Research in Beijing and Suzhou Tongyuan Software & Control Technology Co., Ltd. in Jiangsu, which gave me a practical perspective on engineering challenges.

Today, that same drive has brought me to Seville, Spain. Each step has been shaped by curiosity, adaptation, and a willingness to explore unfamiliar paths.



Functional Materials for Sustainability & Resilience, University of Seville, Spain



At University of Seville (logo on the above-right), I am working in this group, *Functional Materials for Sustainability & Resilience (FunMat4SuRe)*, and under the excellence unit, *Multidisciplinary Unit for Energy Science (MUFENS)*, both directed by Prof. Victorino Franco.



MUFENS



Inaugural of the excellence unit, Multidisciplinary Unit for Energy Science (MUFENS), 2025. I presented a poster here!

My academic roots were originally grounded in Power Engineering and Engineering Thermophysics. However, I soon realized that the most exciting frontier for me lay at the intersection of thermal dynamics and magnetic materials. This curiosity drove my transition into the field of magnetism, specifically exploring how magnetic transitions can control heat in caloric materials. To fully immerse myself in this new discipline, I joined the **IEEE Magnetics Society (MagSoc)**. I didn't just sign up; I stepped out of my comfort zone to actively participate in the **Spain Chapter's** activities, including the **Young Researchers in Magnetism (YRinM)** meetings. Engaging in these events gave me the confidence to present my research to a wider, multidisciplinary audience, transforming me from a specialist in heat transfer into an active contributor to the magnetism community.

It is nice to learn about the theatre culture in Almagro :)



Left to right:
Alejandro Descalzo-Ruiz,
Zhonghao Chang,
Jorge Revuleta-Losada

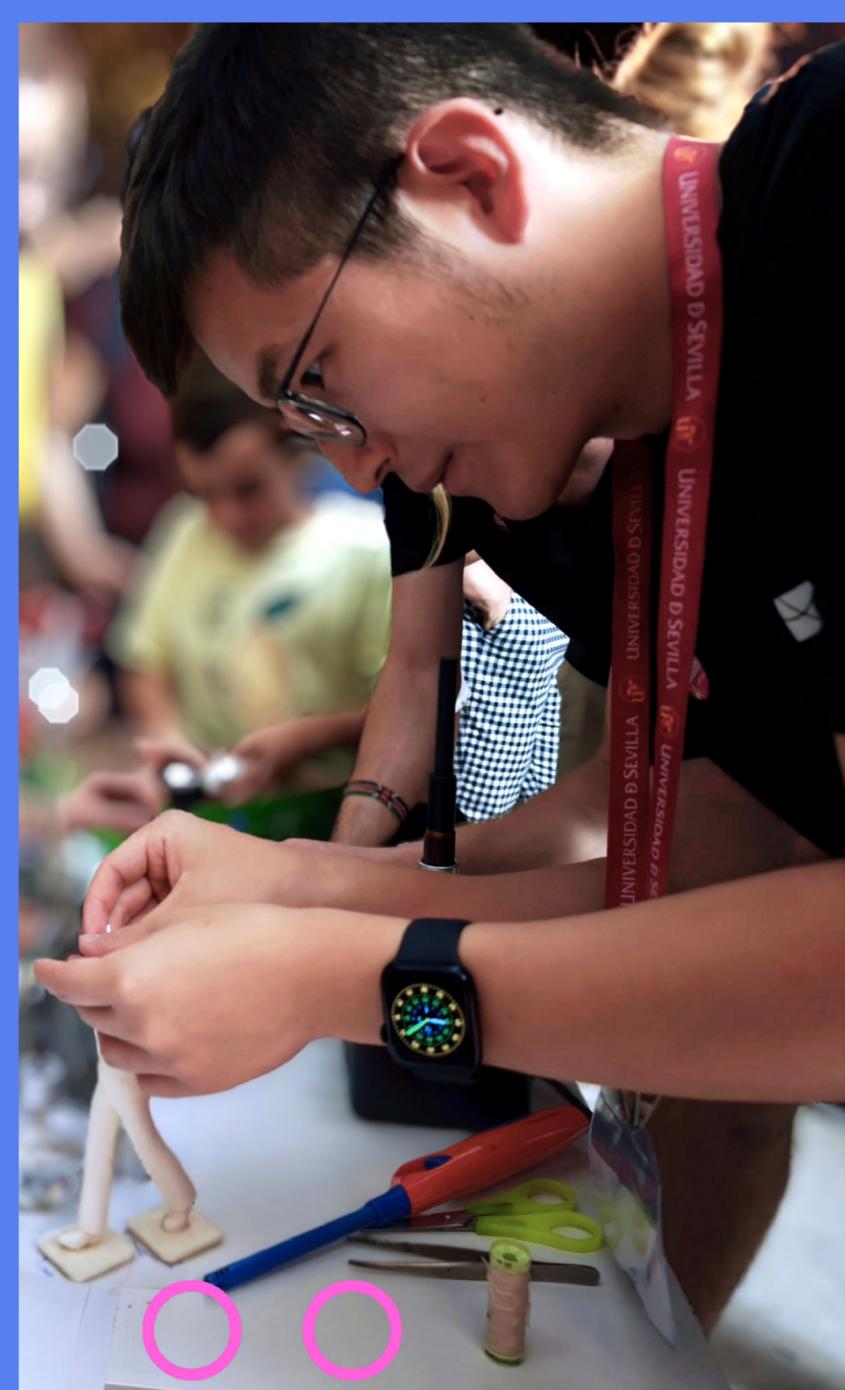


My first oral presentation to a full audience from the magnetism community, which is outside my comfort zone. @ 9th Young Researchers in Magnetism (YRinM), November 5-6, 2025. Almagro, Ciudad Real, Castilla-La Mancha, Spain

Life in Europe has been a continuous adventure. From my home base in sunny **Seville**, I love discovering the hidden gems of the continent—wandering through the historic streets of the **Czech Republic, Poland, and Budapest**, or soaking in the landscapes of **Austria, Germany, and Switzerland**. My travels have expanded beyond boundaries, taking me from the neighbouring beauty of **Portugal and France** all the way to the northern reaches of **Denmark and Sweden**. Every trip is an opportunity to connect with new people and broaden my horizons. For me, science is the vehicle, but the cultural journey is the destination.

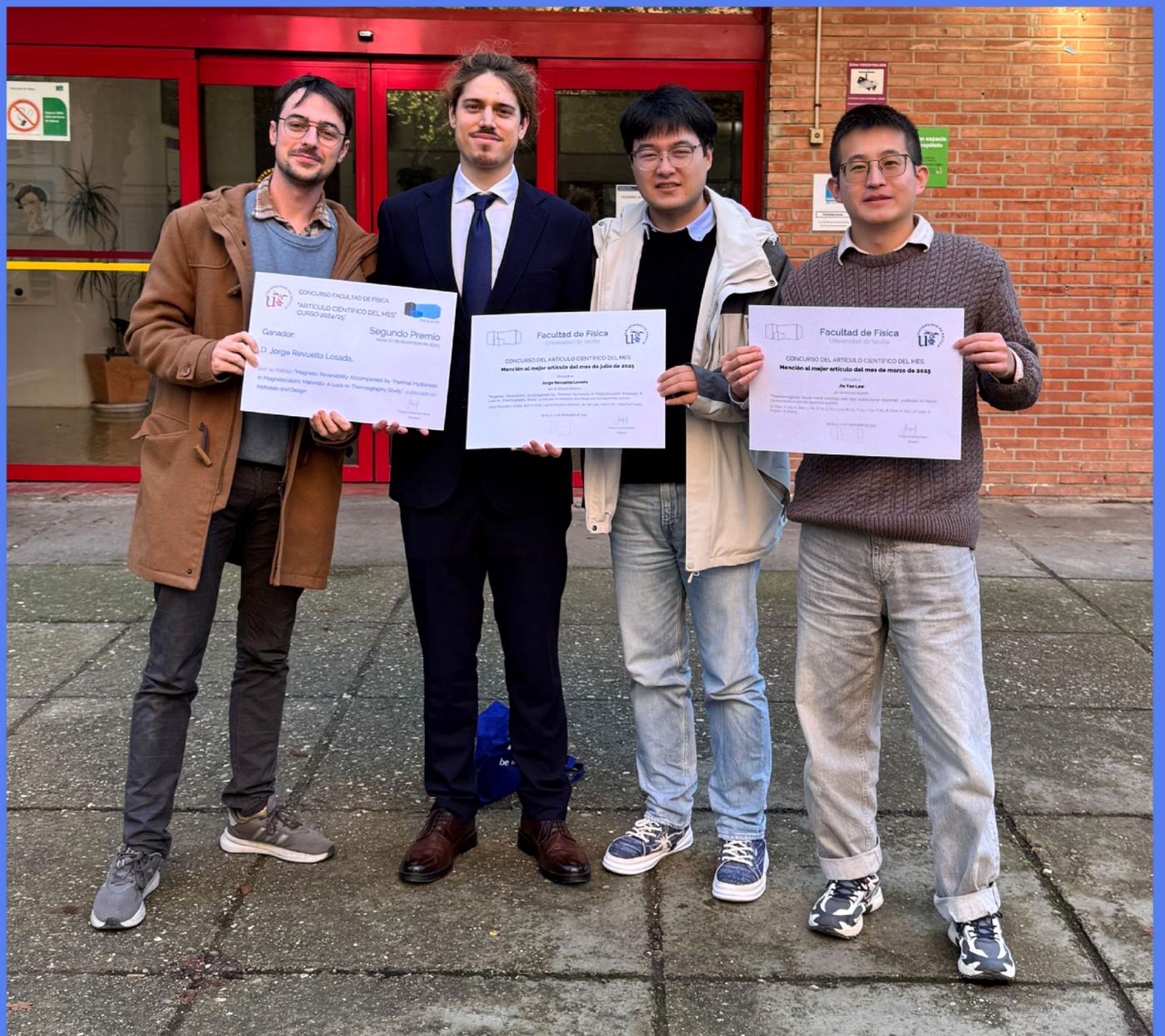


It was a great opportunity to try scientific outreach during the 2025 European Researchers' Night (from left to right: Victorino Franco, Jorge Revuelta-Losada, Zhonghao Chang, Alejandro Descalzo-Ruiz, Pablo Jesús Cortés, Zhe Cui, Jia Yan Law, Javier Ramos Guelfo)



Fixing our 3D printed structures for the 2025 European Researchers' Night

We won 2 "Articles of the Month" awards! One of them is chosen for the 2nd prize of the "Article of the Year 2024-2025"! Congratulations to Jorge Revuelta-Losada! *Left to right: Alejandro Descalzo-Ruiz, Jorge Revuelta-Losada, Zhe Cui, Zhonghao Chang*





Now, as a PhD student in the *Functional Materials for Sustainability and Resilience (FunMat4SuRe)* group, Department of Condensed Matter Physics at University of Seville, I am part of the *Marie Skłodowska-Curie Actions (MSCA) Doctoral Network Molecule-based magneto/electro/mechano-Calorics (MolCal)*—an ambitious European collaboration.

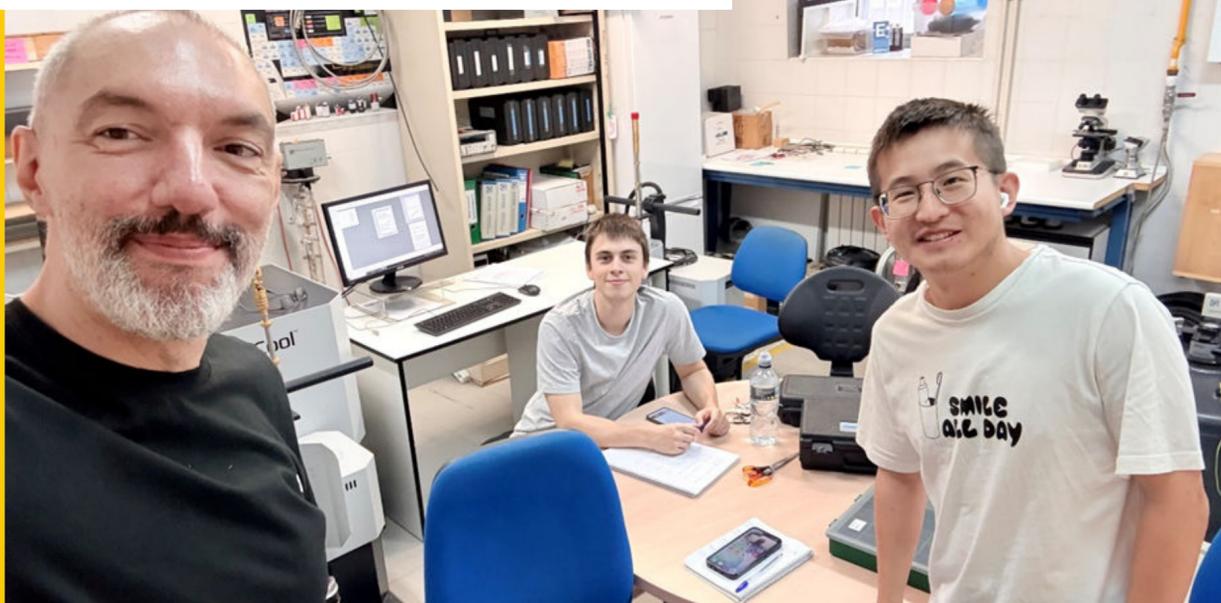


Our good times in the lab at University of Seville as I picked up the skills to becoming an experimentalist.

Top photo, from left to right: Alejandro Descalzo-Ruiz, Zhonghao Chang, Jia Yan Law, and Jorge Revuelta-Losada. Bottom photo, from left to right: Alejandro Descalzo-Ruiz, Zhonghao Chang and Aun Nawaz Khan

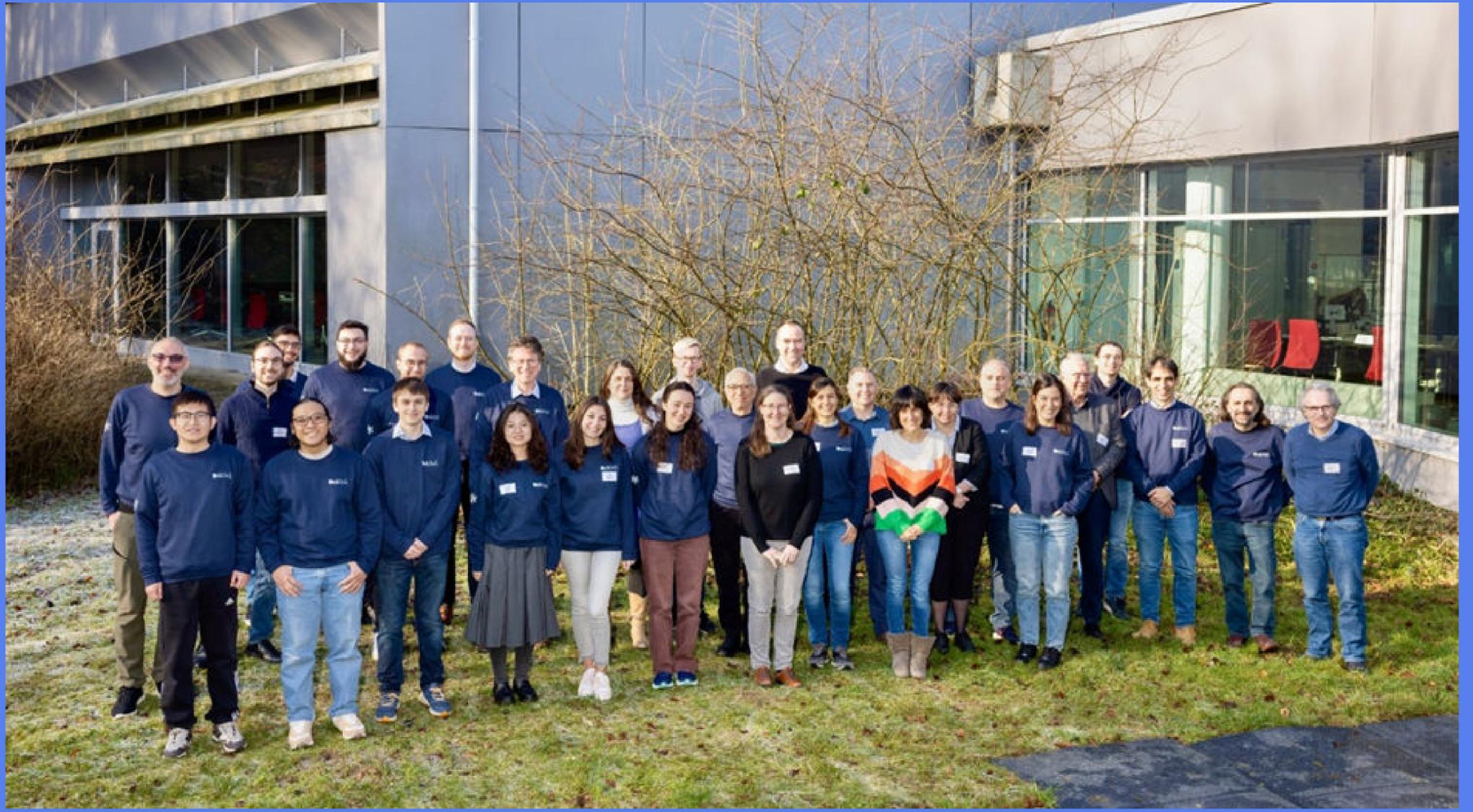


My doctoral project, Molecule-Based Magnetocaloric and Multicaloric Materials, which started in January 2024, has involved the recruitment of 10 PhD students from 8 countries to develop their research training on caloric materials and energy conversion technologies for cooling and heating applications. It blends experimental techniques with theoretical modelling to explore magnetic phase transitions that drive caloric effects. By focusing on the precise magnetic characterization of molecule-based magnetocaloric and barocaloric materials, we aim to unlock new possibilities for energy-efficient, solid-state cooling technologies—from near-ambient to very low temperatures.



My secondment at the Institute of Nanoscience and Materials of Aragón (CSIC – University of Zaragoza) (From left to right: Marco Evangelisti, Marc Ubach Cervera, Zhonghao Chang)

The MolCal network itself unites leading universities, research institutes, and industrial partners—including Consejo Superior de Investigaciones Científicas (CSIC), University of Crete, Bielefeld University, Universidad de Sevilla, Université Paris-Saclay, Consiglio Nazionale delle Ricerche, The University of Edinburgh, Universidad de Zaragoza, Eindhoven University of Technology, Quantum Design, Lake Shore Cryotronics, and BSH Electrodomésticos España, S.A. Together, we aim to create novel molecular assemblies with exceptional caloric potential and translate them into prototype devices for next-generation refrigeration and heat pump technologies.



MolCal Doctoral Network holds its first event in Bielefeld, Germany

For me, moving to Europe wasn't just a change of scenery—it was a leap into 'staying open.' Immersing myself in a new research culture has reshaped my outlook, teaching me that true confidence comes from bridging different perspectives. This path has shown me that community involvement isn't just a bonus; it is the catalyst that turns a researcher into a global collaborator.



Our FunMat4SuRe group here!



Workshop - Current Research In Magnetism And Magnetic Materials (CRMMM'24)

**Sponsored By IEEE
Magnetics Society**

Victorino Franco

**Chair of the Current Research in
Magnetism and Magnetic Materials
(CRMMM'24) workshop, Seville, Spain**

Students in Magnetism (SiM)

by IEEE Magnetics Society



- ▶ *Students in Magnetism (SiM)*, was first established in July 2022 with a trio - comprised of **May Inn Sim (Singapore)**, **Ya-An (Audre) Lai (USA)**, and **Maria Salvador (Spain)**, by the IEEE Magnetics Society.
- ▶ *Students in Magnetism (SiM)* unites magnetism graduate students through activities and events while supporting magnetism-related education. Essentially, spread out across the world and time zones-the team strives to connect with one and all of the magnetism student community, one step at a time!



How on EARTH do we measure the EARTH's magnetic field?



Make SENSE of your SENSORS



participated by IEEE MagSoc + Spain Chapter +

Swiss Chapter + CEMAG + AIMAGN

WHAT IS CEMAG?



Club Español de Magnetismo (CEMAG)

Associazione Italiana di Magnetismo (AIMAGN)



The program consisted of 19 invited lectures, presented by international leaders in this field, 2 special lectures on ethics in publishing and storytelling with scientific data, 2 practices on the design of permanent magnets and on the recovery of scientific data using artificial intelligence, two poster sessions in which a total of 32 papers were presented, two round tables on scientific societies and research opportunities in industry, and the activity "Magnetics sensors challenge" in which the participants, using the material provided, had to create a video demonstrating the use of a magnetic sensor in an original way and adapted to the general public.

There was a total of 79 registrations, with participants coming from Austria, Belgium, Denmark, France, Germany, Italy, Spain, Singapore, Switzerland and the United Kingdom. The Chair of the Spain chapter of IEEE Magnetics Society and the Treasurer of the newly created Swiss Chapter participated in the event as speakers and panelists. One Distinguished Lecturer from IEEE Magnetics Society delivered his lecture at the Workshop.

	Monday 25	Tuesday 26	Wednesday 27	Thursday 28	Friday 29
08:30	Registration				
09:00	Opening	L-05 Marco Evangelisti	L-09 Maria Varela	L-13 Prem Piramanayagam	L-17 Regina Galcerán
09:30	L-01 Cristina Gómez-Polo				
10:00		L-06 Daniel Salazar	L-10 Agustina Asenjo	L-14 Víctor López-Domínguez	L-18 Aurelio Hierro-Rodríguez
10:30	Coffee				
11:00	L-02 Paola Tiberto	Coffee			
11:30		L-07 Luis Fernández-Barquín	L-11 Valerio Scagnoli	L-15 Saul Vélez	L-19 Modesto T. López-López
12:00	L-03 Thomas Schrefl				
12:30		L-08 Alfredo García-Arribas	L-12 David Cabrera	L-16 Ferrán Macià	Awards and closing
13:00	Lunch	Lunch			
13:30		Lunch			
14:00	L-04 Rasmus Bjørk				
14:30		Lunch			
15:00	Coffee	SL-01 Jia Yan Law	Round table: opportunities of research in industry	Magnetic sensors challenge roundup	
15:30	Practical 1: Magnetic circuit design	SL-02 Miguel A. F. Sanjuán		Scientific societies: How can we help?	
16:00					
16:30	Magnetics sensors challenge	Coffee		Posters 2 P2-01 to P2-16	
17:00		Posters 1 P1-01 to P1-16	Practical 2: Data retrieval with ML		
17:30					
18:00					
18:30					
19:00		Bierstube (finger food and drinks)		Bierstube (finger food and drinks)	
19:30					
20:00					
20:30					
21:00			Dinner		

Lectures
Special Lectures
Food and drink
Practicals
Posters
Round table

CRMMM'24 Workshop Program



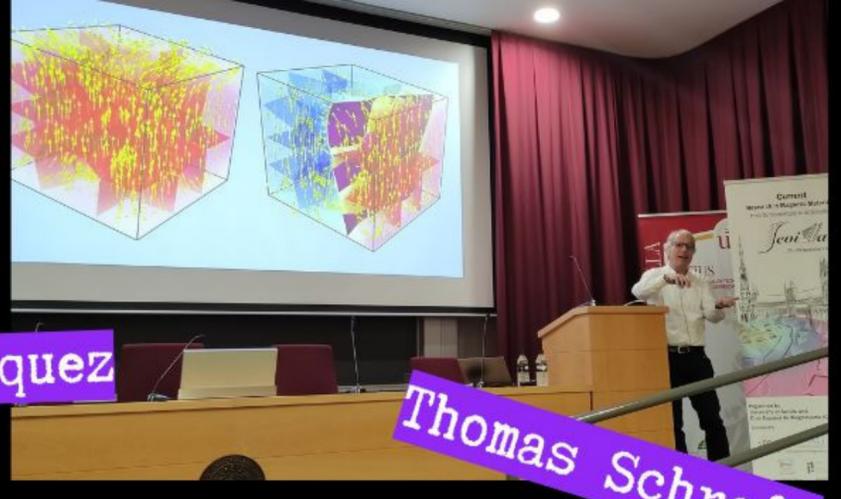
Lecturers



Agustina Asenjo



Victor López-Domínguez



Thomas Schrefl



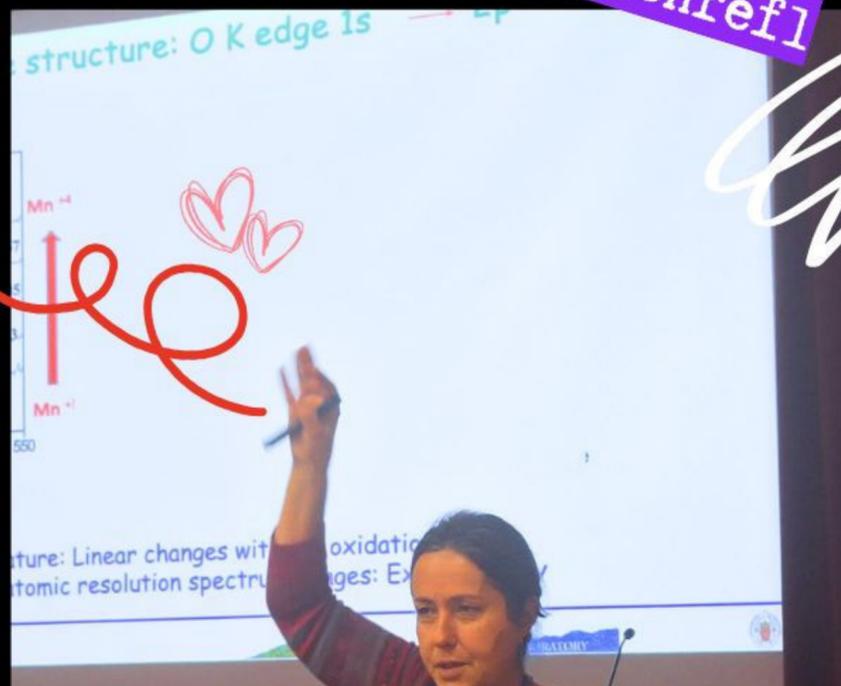
Paola Tiberto



Alfredo García-Arribas



Modesto T. López-López



María Valera

WOW



Prem Piramanayagam



Regina Galcerán



Valerio Scagnoli



Marco Evangelisti



Miguel A.F. Sanjuán



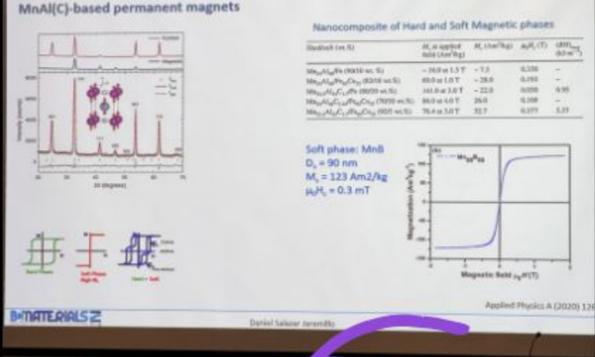
Aurelio Hierro-Rodríguez



Rasmus Bjørk



Luis E. Hueso



Cristina Gómez Polo

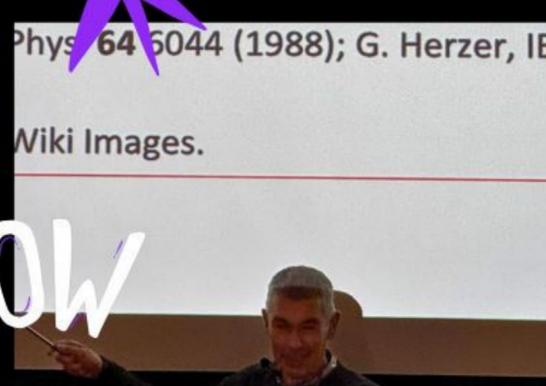
Daniel Salazar



David Cabrera



Luis Fernández-Barquin



WOW

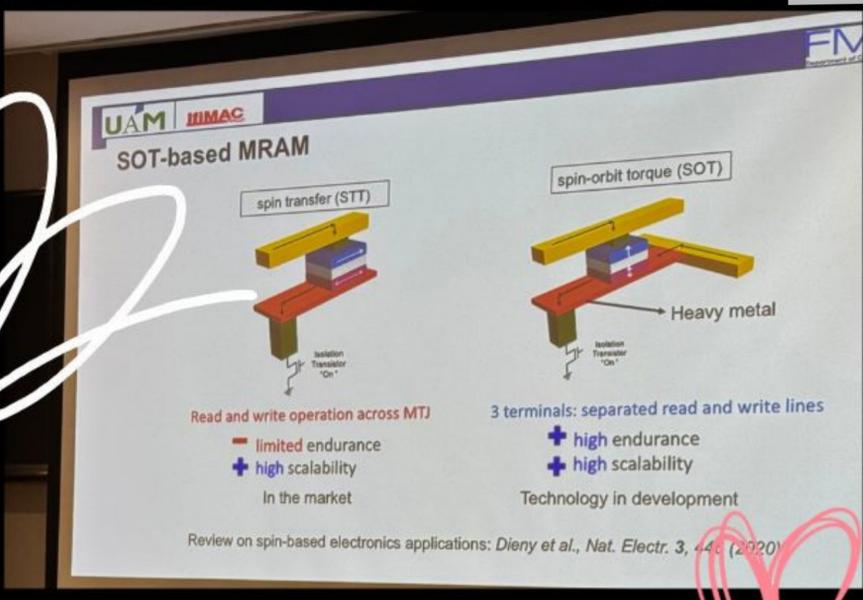


Victorino Franco

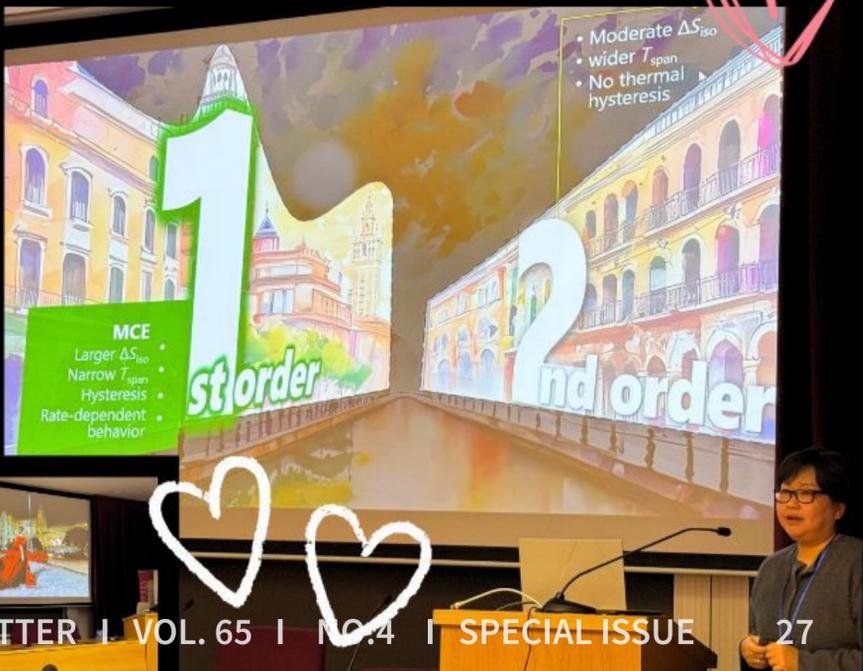
Cristina Gómez Polo



Saul Vélez

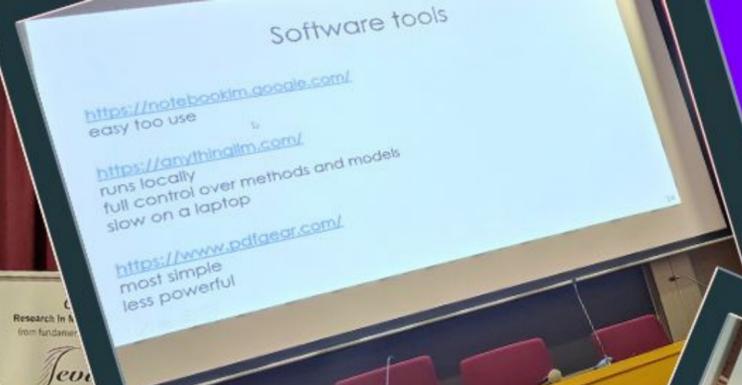


Jia-Yan Law

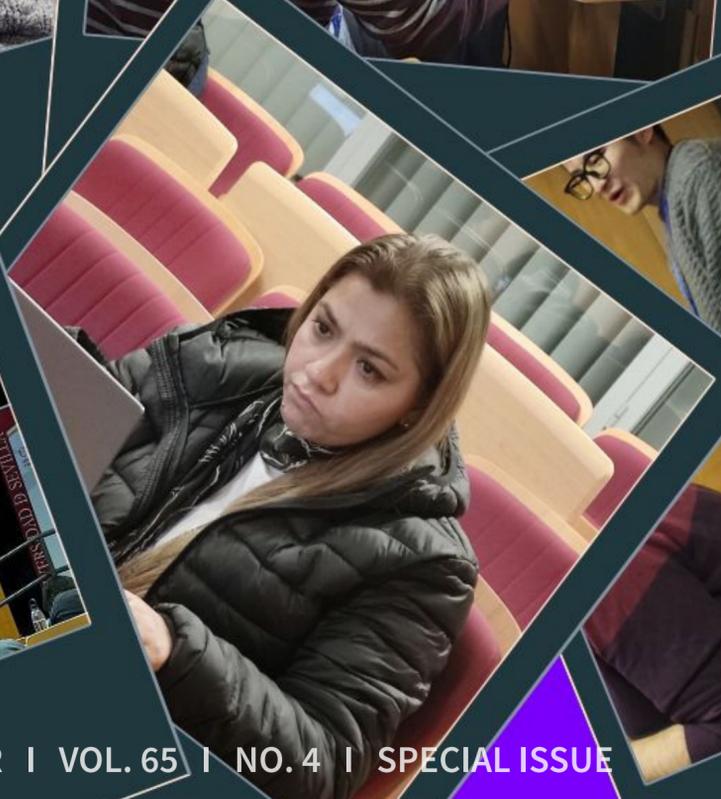


Data Retrieval with Machine Learning

taught by **Thomas Schrefl**



chill





Opportunities of Research in Creating Magnets Solutions.

Roundtable: "Opportunities of research in industry"
Wed 27th Nov 2024

Opportunities of Research in Industry

Anan Belén Seoane
Ingeniería Magnética Aplicada

Expertos e



Expertos en vacío, análisis de gas

UM³

gases y criogenia.

Carlos Montero

Helium3 Technologies & Consulting SL

2024



Francisco J. Terán

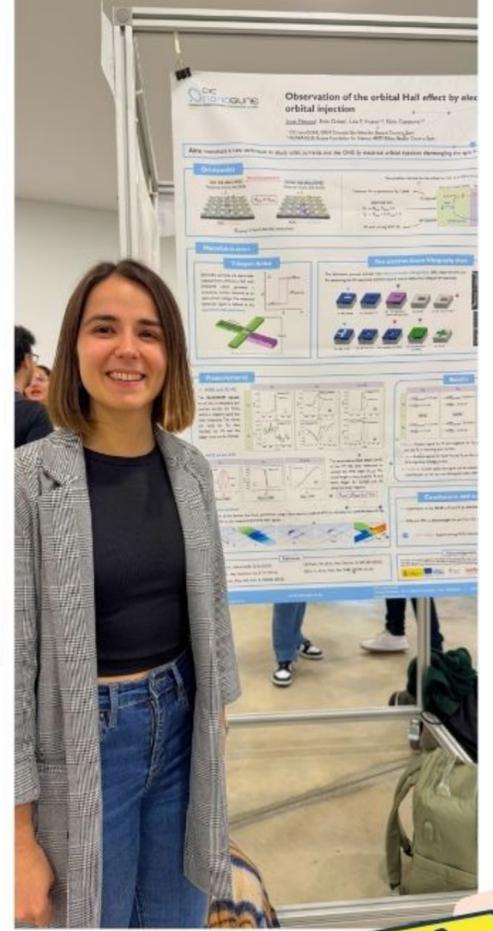
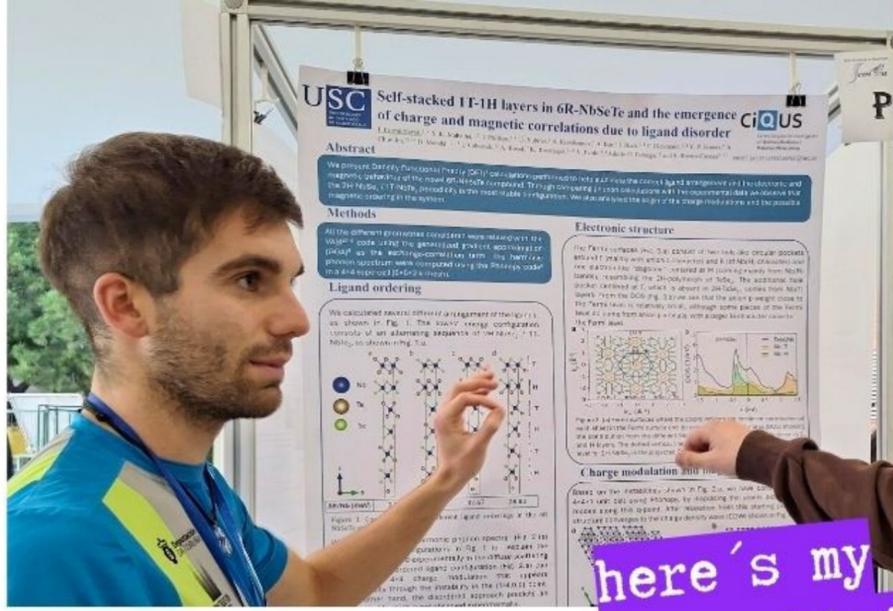
NANOTECH SOLUTIONS SL

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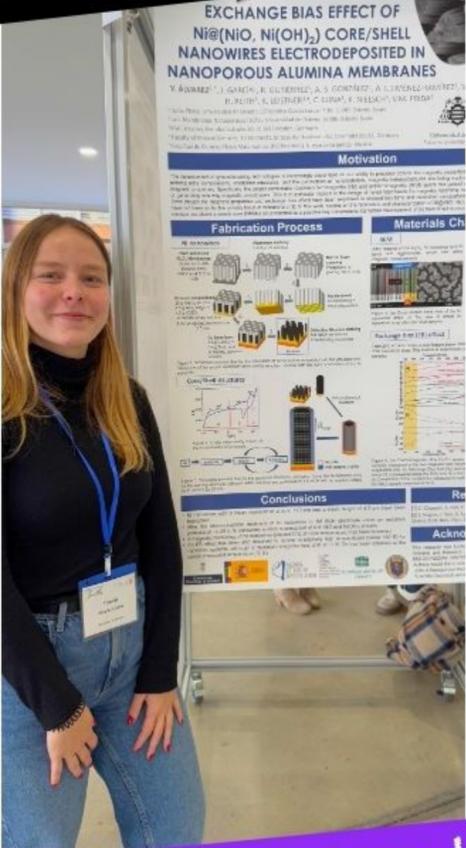


Poster sessions

here's my highlights!



Check out my 3D prints



our interactions set me thinking further



hear my motivation behind the work :D



Poster sessions and networking fun - cont'd



The promotion of IEEE and its activities received special attention from the organization, not only by including the logo in all promotional materials and banner, but also by making the presentation of the Distinguished Lecturer open to the general public and publicized at the Physics and Materials Science degrees to attract students into the topic and the Magnetics Society. The round table on Scientific Societies gave special visibility to IEEE Magnetics Society, with the presence of the Spain Chapter as a panelist. In it, students were able to enquire and suggest possibilities for their future active involvement in the Society. The networking event after that round table on Thursday facilitated a more relaxed discussion between members and future members; between senior participants and younger generations. The Magnetics Sensors Challenge was also an indirect way to promote IEEE activities, as it was clearly stated that the activity was created by the initiative of V. Franco to be implemented at the 2022 Joint MMM-Intermag in New Orleans, for which he was General Chair. Participants were directed to the TikTok videos created during that event as reference. This showed the pioneering activities of IEEE Magnetics Society in promoting student involvement.



Arduino tutorial taught by student...

& then team up for magnetic sensor challenge...

perfect



Let's GO!



ourself... we cl... ender... and p... ngle... by dec... eciding... y day... e and s...

will... whe... ou... with t... ind... ides!



GOOD VIBES



HAPPY DAYS



GIRL POWER



the moment you decid



strong... momen... er at... en, you... e to l...



Full attention going on...





Showtime!

sound on



WOW

Check out our innovations!

COOL

YES

HMM

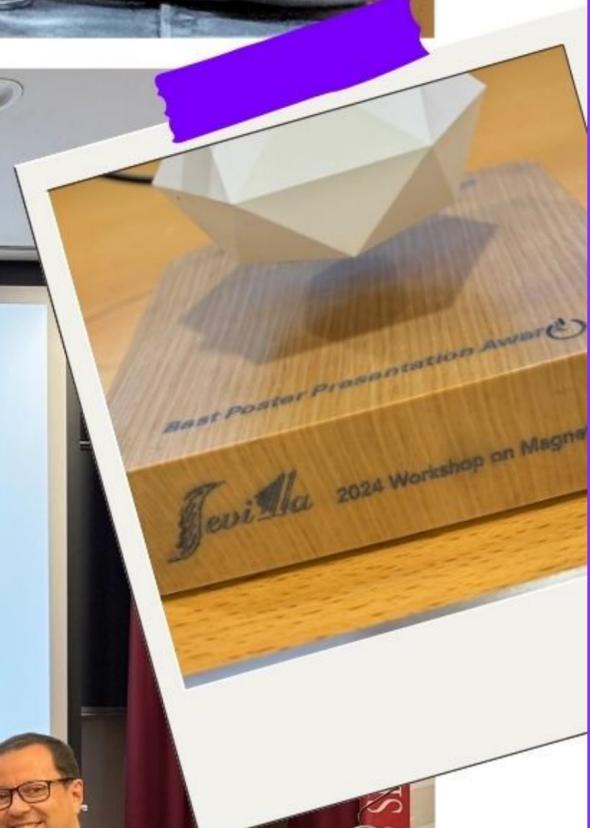


WOW

YEAH



LIKE





Fantastic!

CONGRATULATIONS

Well done!



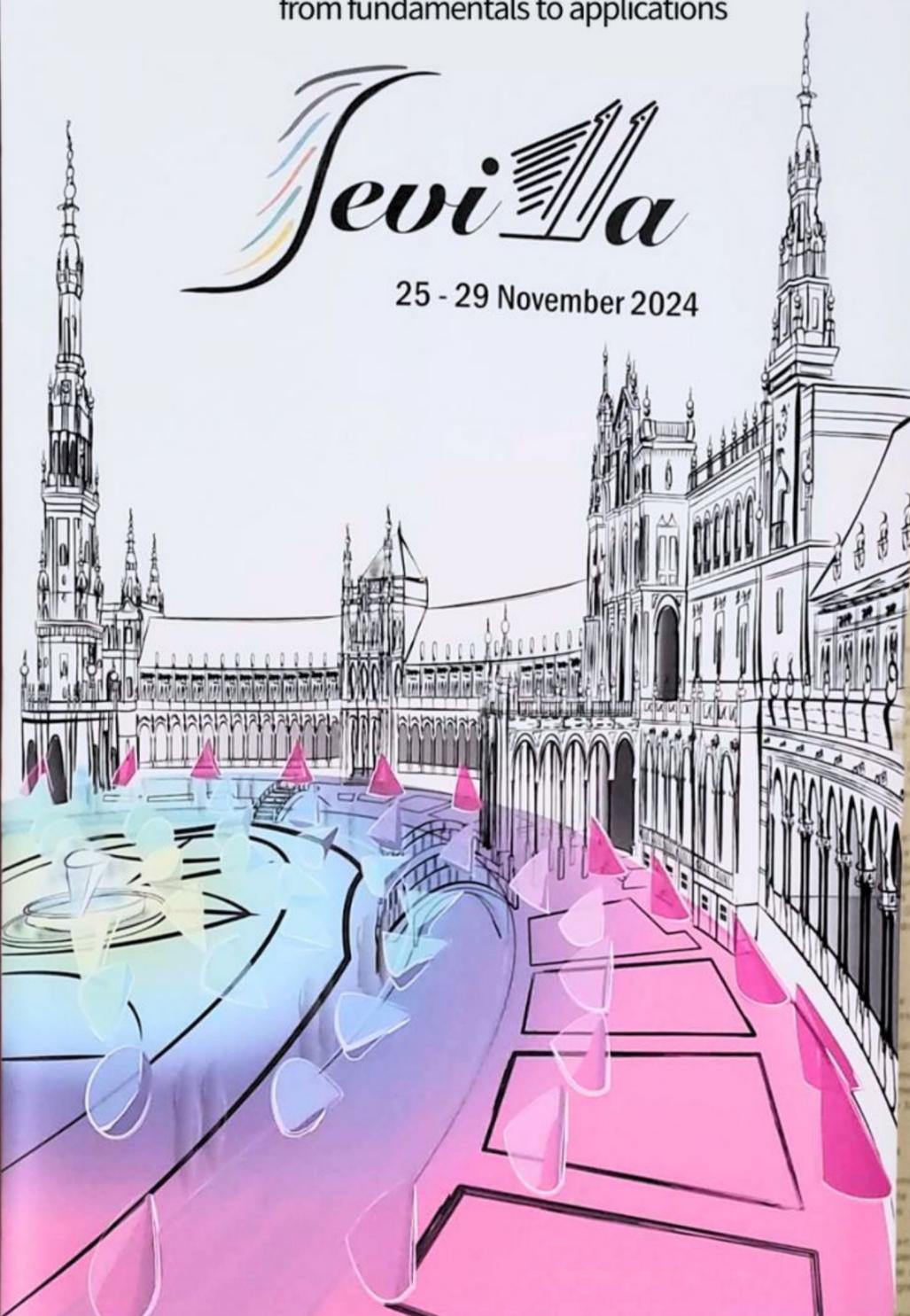
The funds received from the sponsorship were used to provide waivers of registration for invited speakers, including the Chair of the Spain Chapter and the Treasurer of the Swiss Chapter. By doing so, the registration fees of students could be reduced in circa 110 € (otherwise, those expenses would have been supported by higher fees of students), reaching a final fee (for advanced student registration) of 490 €, including accommodation for the whole duration of the Workshop in a hotel near the venue. This 18 % reduction of the registration fees of students made a significant impact, as it allowed more students to attend, and it benefited 44 individuals instead of a maximum of 8 if student bursaries had been provided.



I would like to sincerely thank Conference Executive Committee (CEC) and IEEE Magnetics Society for the invaluable help provided with their sponsorship, which certainly contributed to the success of the event.

Current Research in Magnetism & Magnetic Materials:
from fundamentals to applications

Sevilla
25 - 29 November 2024



Organized by
University of Seville and
Club Español de Magnetismo (CEMAG)

Sponsored by



University of Seville Club Español de Magnetismo SPINRED 2 IEEE Magnetics Society
Asociación Italiana di Magnetismo INAMAT2 Ingeniería Magnética Aplicada S.L.





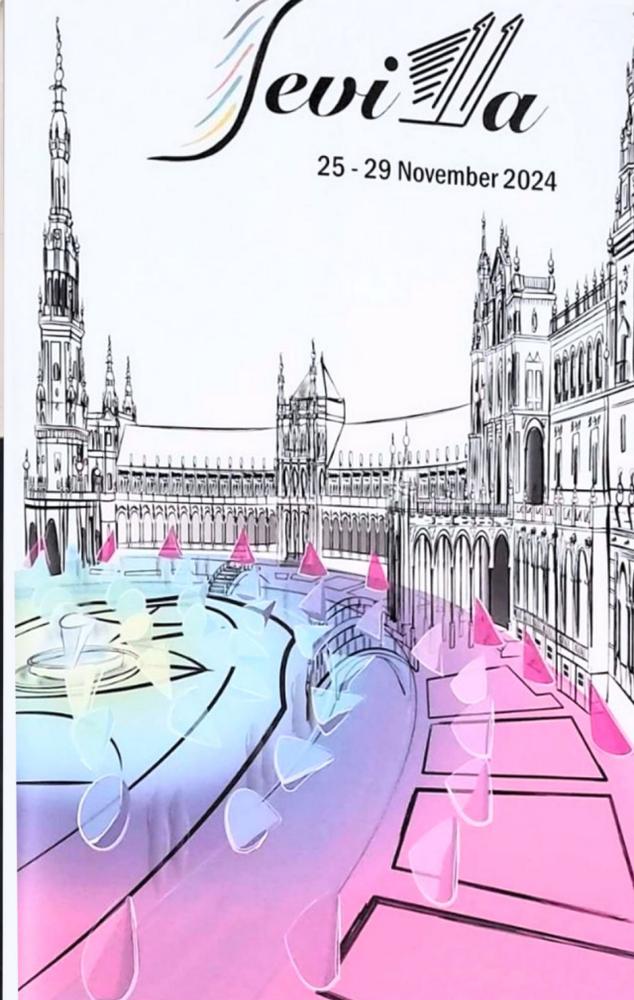
Several of the 100 participants of the CRMMM'24 Workshop assembled in front of the Celestino Mutis Building from University of Seville. for a group photo.





**Current
Research in Magnetism &
Magnetic Materials:
from fundamentals to applications**

Sevilla
25 - 29 November 2024



- Organized by**
University of Seville and
Club Español de Magnetismo (CEMAG)
- Sponsored by**
- University of Seville
 - CEMAG Club Español de Magnetismo
 - SPINRED 2
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Magneto- mechanochemical Nanotherapy: Modulating the Redox Balance in Tumors

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Turning Nanomagnets Into Medicine

Combining magnetic nanoparticles with electromagnetic fields enables remote control of mechanical forces and biochemical reactions in cells. Many chemotherapeutic drugs exploit free radicals – highly reactive paramagnetic species – to disrupt cell signaling and trigger cell death. Particularly, magneto-mechanochemical nanotherapy is a therapeutic approach based on applying nanoscale forces and modulating free radical levels to enhance the antitumor effects of chemotherapy. By tuning electromagnetic field parameters and magnetic nanoparticle properties, it is possible to inhibit tumor growth and reduce tumor volume in animal models, advancing personalized cancer treatment.

Background

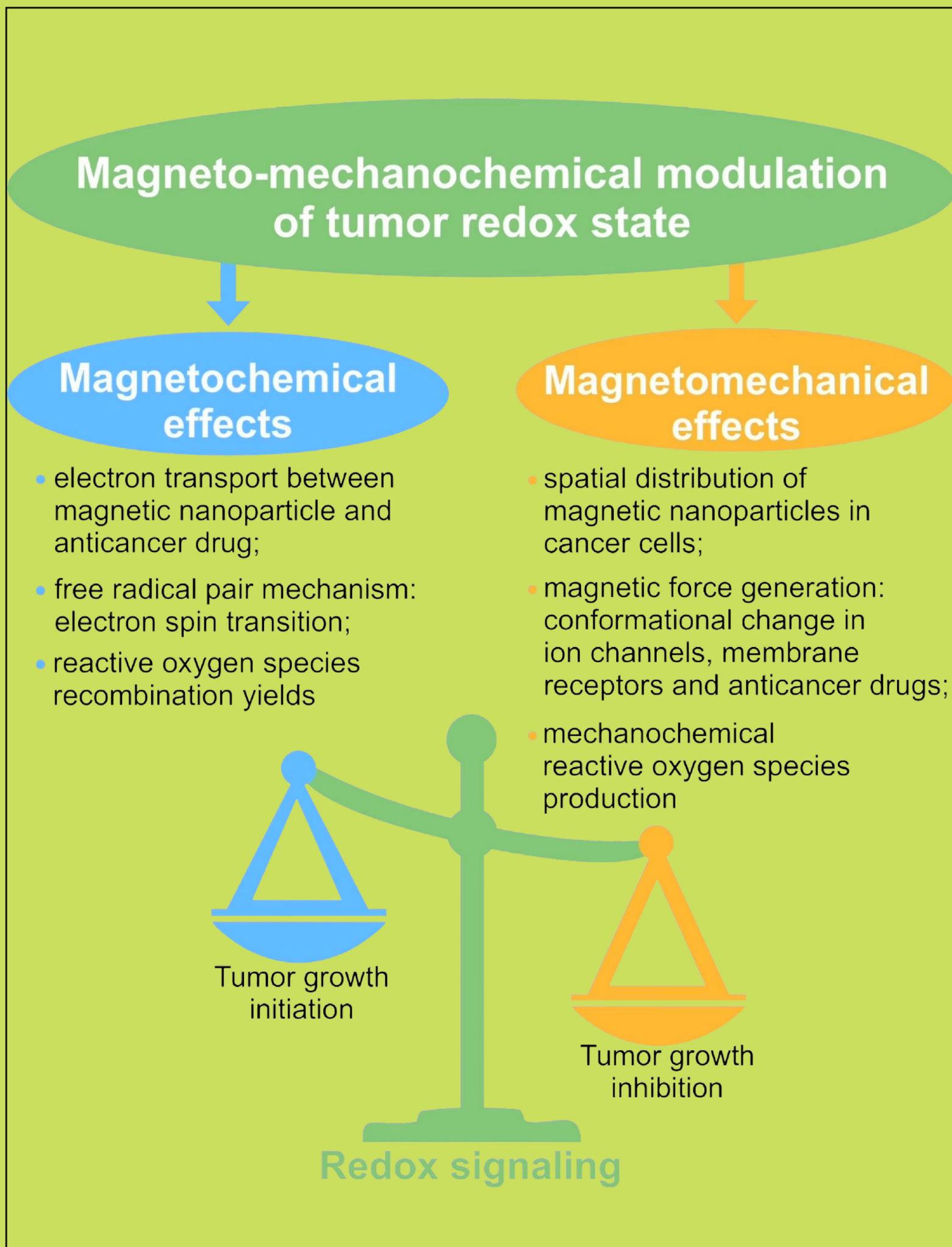
There are several mechanisms behind the observed anticancer effects of magnetic nanoparticles delivered to the tumor.

On the one hand, magnetochemical effects involve changes in the course of biochemical reactions inside cells. Electromagnetic fields can affect electron transfer between the nanoparticles and chemotherapeutic drugs, as well as the formation of reactive oxygen species (ROS) – chemically reactive oxygen-containing molecules and free radicals, such as superoxide anion and hydroxyl radicals and hydrogen peroxide. At low to moderate levels, ROS regulate cell growth; at high levels, they cause oxidative damage and cell death.

On the other hand, magnetomechanical effects occur when the nanoparticles experience forces under the influence of externally applied electromagnetic fields and physically act on cellular structures, producing changes in the shape of drug molecules and membrane proteins, including ion channels and membrane receptors.

Both mechanisms converge on regulating ROS-mediated cell signaling, which functions as a cellular switch between survival and death. Since nanoparticle characteristics and field parameters can be tailored to each patient, magneto-mechanochemical nanotherapy represents a promising direction for the development of non-invasive cancer therapies that integrate physical and chemical principles with molecular biology for targeted personalized treatment while sparing healthy tissue [1].

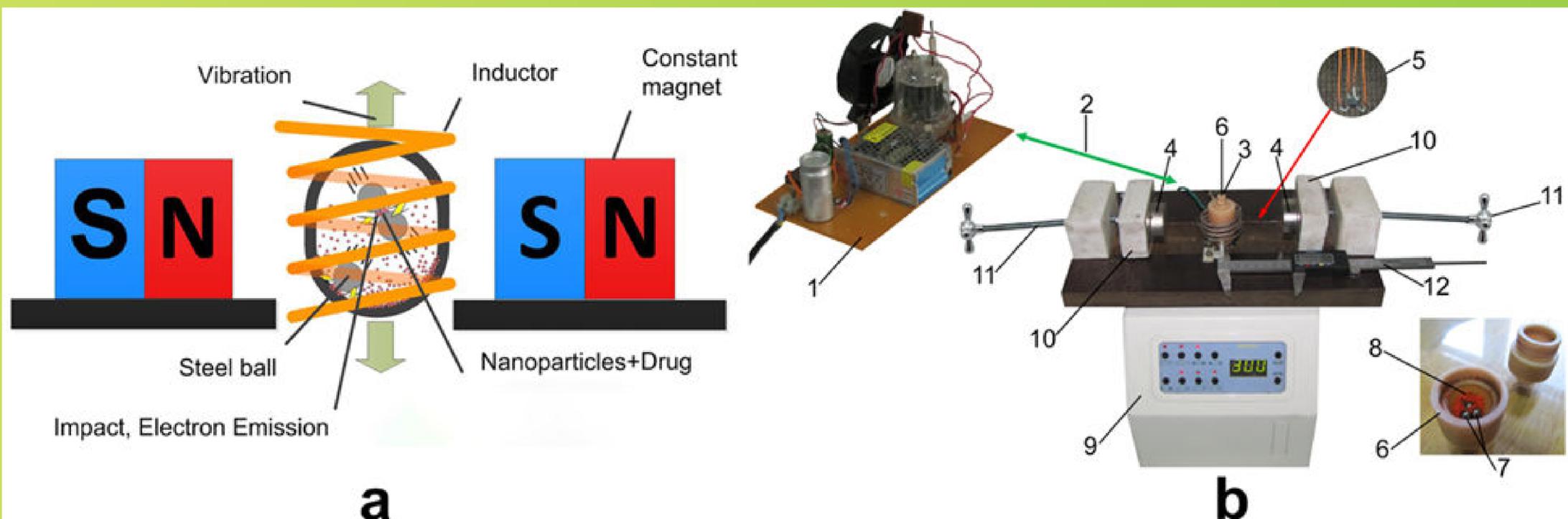
Another way to damage and kill cancer cells relies on moderate heating induced by electromagnetic field action on magnetic nanoparticles, which is also known as magnetic nanoparticle hyperthermia. Gaining a nuanced understanding of magnetic loss mechanisms, including hysteresis, Néel–Brownian relaxation, and eddy currents, is vital for designing nanoparticles with controllable heating regimes, redistributing the particles between superparamagnetic and blocked states under specific field conditions, and using the Curie temperature as a thermal switch [2–4].



The concept of magneto-mechanochemical modulation of tumor redox state

Magneto-Mechanochemical Reactor for Loading Drugs on Magnetic Nanoparticles

Drugs can be loaded onto magnetic nanoparticles using a magneto-mechanochemical reactor that combines electromagnetic irradiation and mechanical vibration to control the number of paramagnetic centers (free radicals) and magnetic properties initiated in the resulting nanocomplexes. In doing so, magnetic nanoparticles and chemotherapeutic drugs (8) are placed in a diamagnetic chamber (6) together with metallic balls (7) inside a mechanical mill (9). The mill operates with high-precision movement, using a linear motor that generates vibrations within the electromagnetic irradiation zone created by a frequency generator (1) and permanent magnets (10) [5].



Magneto-mechanochemical reactor (a – schematic, b – photo): frequency generator (1), wired connection (2) between generator and induction coil (3), permanent magnets (4), Hall sensor (5), diamagnetic chamber (6), metallic balls (7), Fe₃O₄ magnetic nanoparticles and chemotherapeutic drug (doxorubicin) (8), mechanical mill (9), installation units for the permanent magnets (10), positioning system for permanent magnets (11), caliper (12).

In addition, magnetic nanocomplexes retain changes in their magnetic properties after mechanical deformation in an electromagnetic field, enabling remote modulation of chemical reactions upon subsequent irradiation during magneto-mechanochemical nanotherapy. Electron paramagnetic resonance spectroscopy and vibrating magnetometry are suitable methods to characterize properties of magnetic nanocomplexes produced in a magneto-mechanical reactor and tumor samples following treatment [6,7].

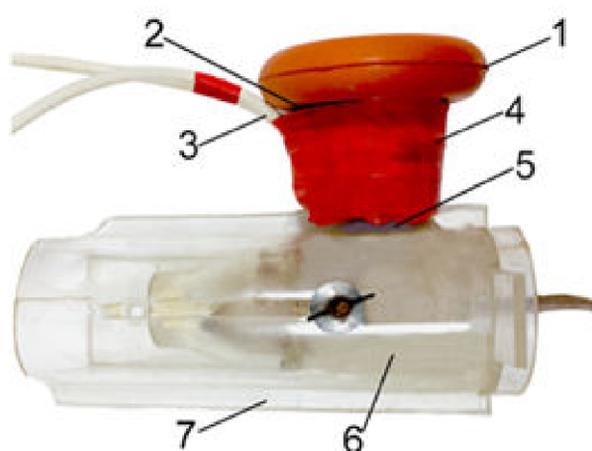
Device for Magneto-Mechanochemical Nanotherapy

After intravenous administration, magnetic nanoparticles loaded with chemotherapeutic drugs can be magnetically guided to tumors, exploiting fenestrations up to 150 nm in tumor vasculature. A dedicated MagTherm (Radmir, Ukraine) device [8] integrates permanent magnets and radiofrequency fields to combine the magneto-mechanochemical and thermal effects ($\leq 42\text{ }^{\circ}\text{C}$). The magnetic-dipole applicator with a permanent magnet is wired to the apparatus to precisely target and irradiate the tumor, enhancing the efficacy of conventional chemotherapeutics.

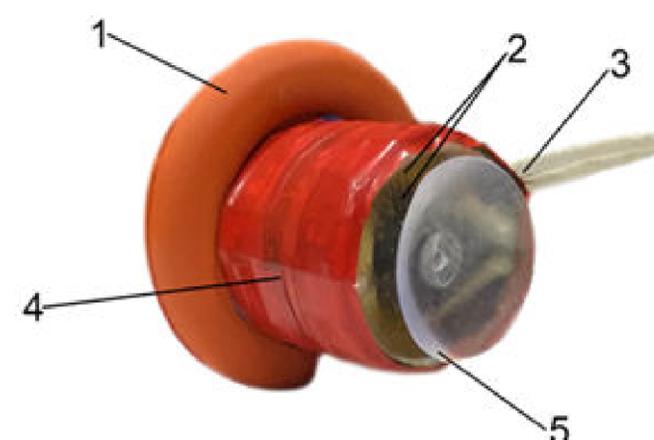
Experiments demonstrated that constant inhomogeneous magnetic fields with different strengths induce different anisotropies in nanocomplexes delivered to the tumor, while combined static and radiofrequency fields significantly inhibited tumor growth, modulated ROS levels, and changed histological features in tumor tissue. These findings emphasize the role of field strength in modulating tumor redox state, microstructure, and nonlinear growth kinetics [9].



a

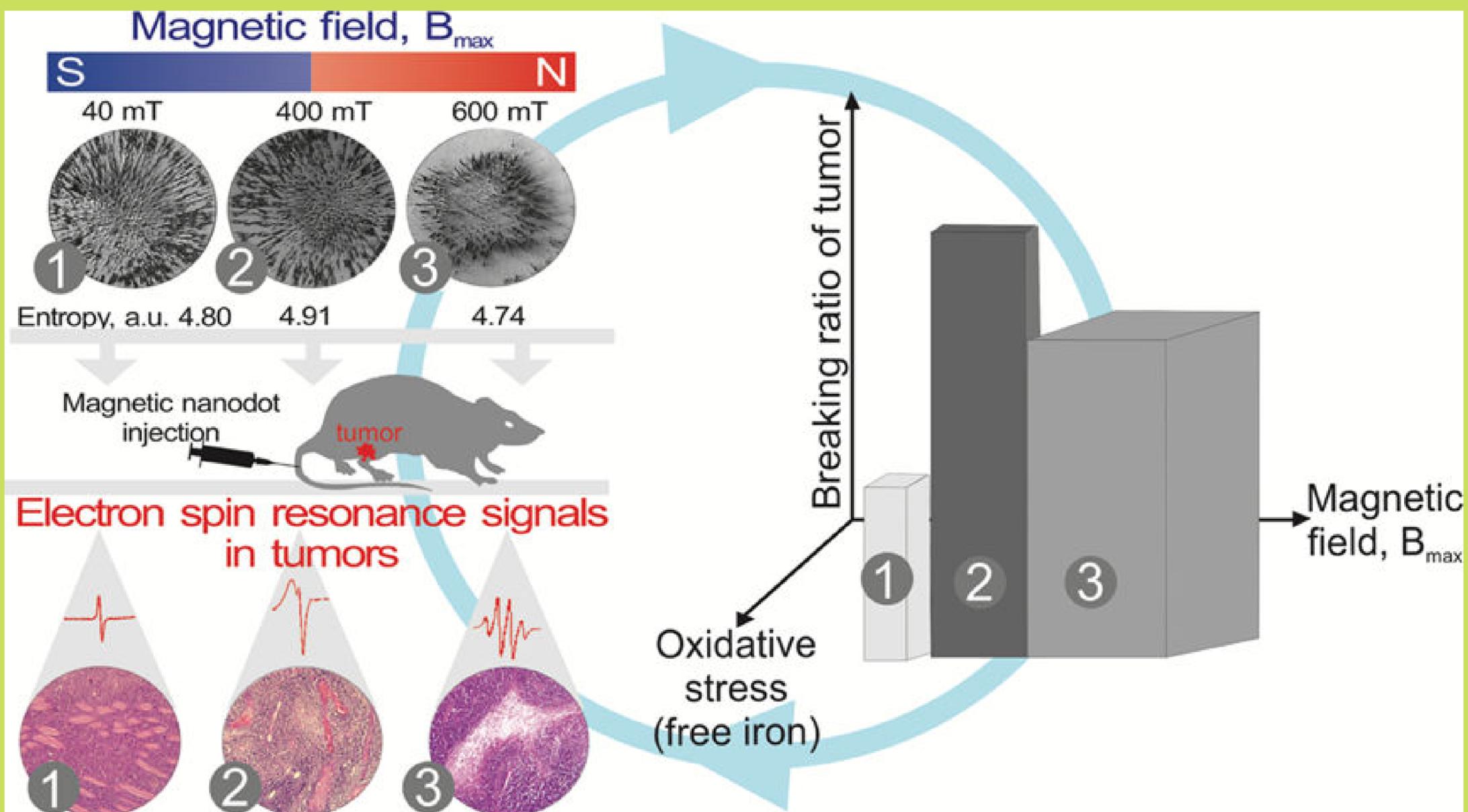


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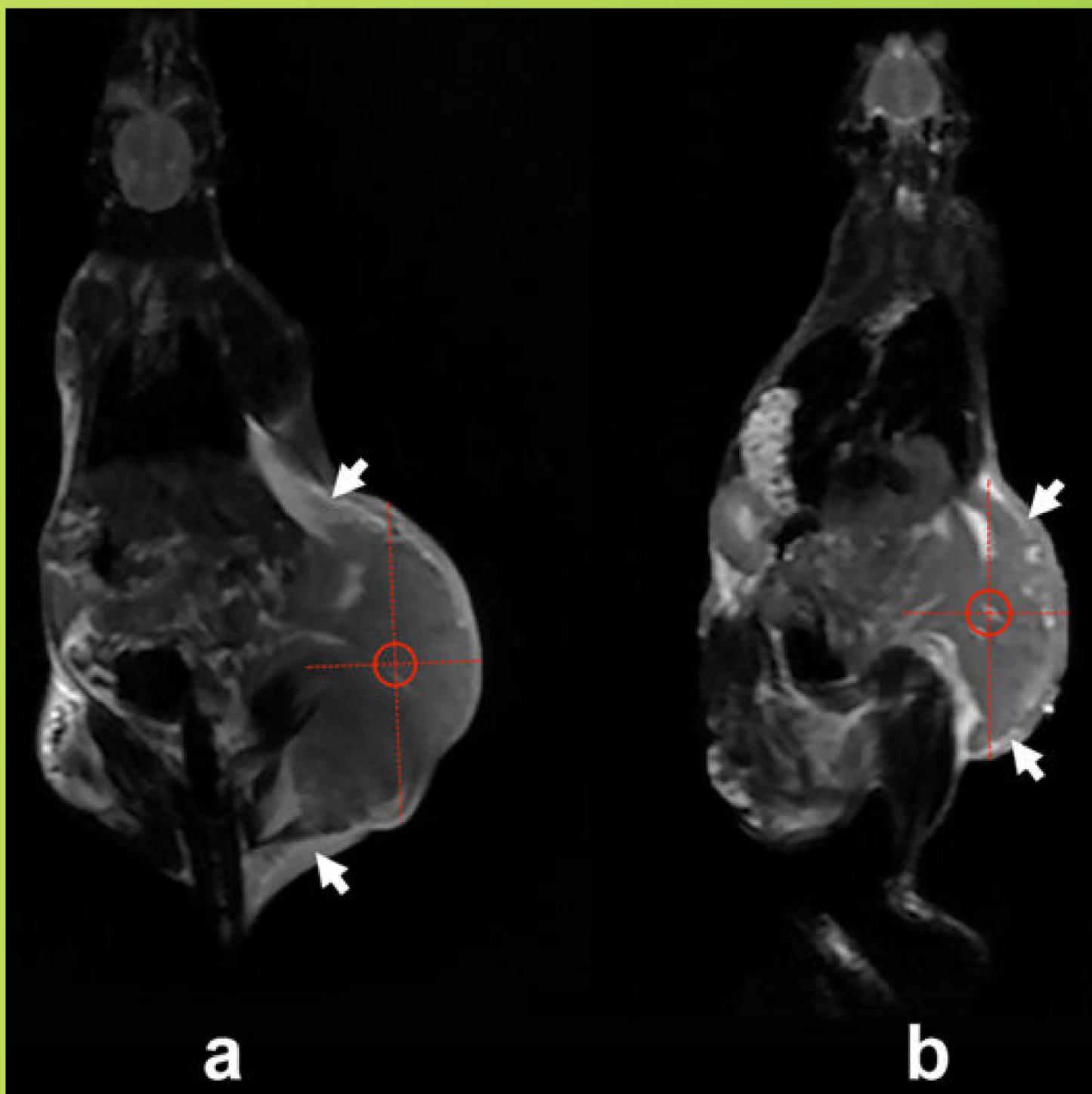
c

MagTherm apparatus for treatment of cancer patients (a). Magnetic-dipole applicator for treatment of tumor animals (b, c): 1 – protective casing with a permanent magnet inside; 2 – magnetically sensitive dipoles; 3 – loop applicator; 4 – diamond holder; 5 – positioning fixator; 6 – non-inbred rat bearing a malignant tumor; 7 – container for positioning laboratory animals.



The schematic illustrates the effect of anisotropic magnetic nanoparticles loaded with chemotherapeutic drugs on Walker-256 carcinosarcoma in vivo under constant inhomogeneous magnetic fields of varying strengths. Combining static and electromagnetic fields produced differences in magnetic anisotropy, electron spin resonance signals, oxidative stress, and histological patterns. (With permission from [9].)

Magnetic resonance imaging revealed a pronounced tumor response to magneto-mechanochemical nanotherapy with a reduction in size and changes in the texture heterogeneity of tumor regions of interest [10].



Representative T2-weighted coronal MRI scans of Walker-256 carcinosarcoma-bearing rats: control group receiving no treatment (a) and experimental group after magneto-mechanochemical nanotherapy. Red dotted lines indicate the tumor; white arrows indicate the extent of peritumoral edema. (Reprinted from [10]. Copyright 2024 Royal Society of Chemistry)

Clinical Translation

Joint efforts of V.G. Baryakhtar Institute of Magnetism and the National Cancer Institute of Ukraine are aimed at translating magneto-mechanochemical nanotherapy for cancer patients. The obtained results show that patients with locally advanced breast cancer had lower viable tumor volume after receiving neoadjuvant chemotherapy combined with induction moderate hyperthermia ($24.4 \pm 0.2\%$), as compared with chemotherapy alone ($30.4 \pm 0.25\%$). The 10-year overall survival rates were higher (log-rank: $p = 0.009$) in breast cancer patients who underwent chemotherapy combined with hyperthermia than in patients receiving chemotherapy [9].

Conclusion

Magneto-mechanochemical nanotherapy offers a promising approach to selectively modulate the tumor redox state owing to the combined effects of magnetic nanoparticles and electromagnetic fields. By shifting ROS signaling from tumor promotion to tumor inhibition, this strategy can enhance the efficacy of anticancer treatments. Incorporating the nonlinear dynamics of ROS production into treatment planning could enable more personalized and effective cancer nanotherapies. We invite interested researchers and institutions to collaborate in the further development, optimization, and clinical translation of magneto-mechanochemical nanotherapy.

ACKNOWLEDGMENTS

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Swiss Nanomagnetism Summit 2025

Ales Hrabec

Chapter Chair, IEEE Magnetics Society
Swiss Chapter



Lauren Riddiford (far-left) and Ales Hrabec (far-right) congratulate Ephraim Spindler (University of Kaiserslautern-Landau) and Nicholas Meinhardt (ETH Zurich) for their best poster awards.

Swiss Nanomagnetism Summit 2025

The Swiss Chapter of the IEEE Magnetics Society, together with the Laboratory for Mesoscopic Systems, ETH Zurich - Paul Scherrer Institute, hosted the inaugural Swiss Nanomagnetism Summit in Zurich on September 8-9, 2025. This first-of-its-kind event in Switzerland brought together leading Swiss laboratories working in nanomagnetism, complemented by invited speakers and guests from across Europe and beyond.

Held in the historic main building of ETH Zurich, the two-day summit welcomed more than 70 participants. The program featured invited talks and poster sessions covering cutting-edge developments in nanomagnetism, including spintronics, magnonics, orbitronics, and altermagnetism, as well as advances in novel materials and state-of-the-art imaging techniques.

The best poster awards were given to Ephraim Spindler (University of Kaiserslautern-Landau) and Nicholas Meinhardt (ETH Zurich).

The success of this premier event underscores the vitality of Switzerland's nanomagnetism community and its tight ties with the broader European research landscape. We hope that this event is the first of many IEEE Magnetics Society events in Switzerland.

More than 70 participants of the Swiss Nanomagnetism Summit assembling in front of the ETH Zurich main building.





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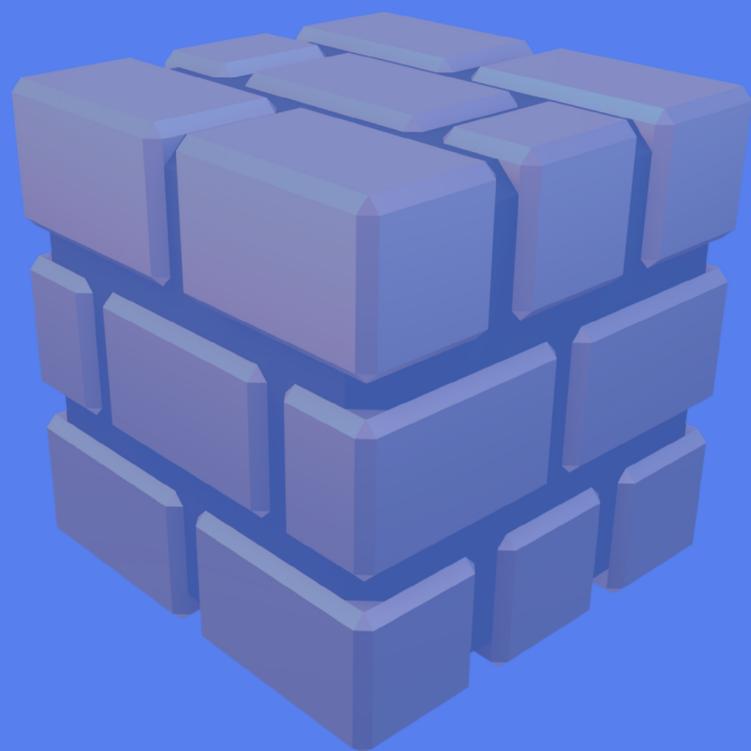
Unanimously Positive Feedback On The Magnetic Frontiers 2025:

Altermagnetism – New Opportunities In Magnetism

**Timo Kuschel, Helena Reichlova
and Dominik Kriegner**

**Conference Chair, Treasurer and
Program Committee Chair of the
Magnetic Frontiers 2025 Conference**

The IEEE-sponsored Magnetic Frontiers 2025 conference, dedicated to the rapidly emerging field of altermagnetism, took place from May 12–16 in Liblice, Czechia, about 50 km from Prague. The event was chaired by Timo Kuschel (Bielefeld University and Johannes Gutenberg University Mainz) with support from Martin Veis (Charles University), Helena Reichlová (Czech Academy of Sciences), and Libor Šmejkal (Johannes Gutenberg University Mainz).



Led by Dominik Kriegner, the Program Committee including Vincent Baltz, Olena Gomonay, Jairo Sinova, and Zhiqi Liu crafted a dynamic and balanced scientific program from a large pool of high-quality submissions. The response from the community far exceeded expectations, and the final selection ensured a strong mix of experimental and theoretical work, established and emerging topics, and ample opportunities for early-career researchers. The conference brought together 83 participants from 17 countries across five continents, reflecting the global momentum of this new field, with 22% female representation.



MAGNETIC FRO

Altermagnetism – New Oppo

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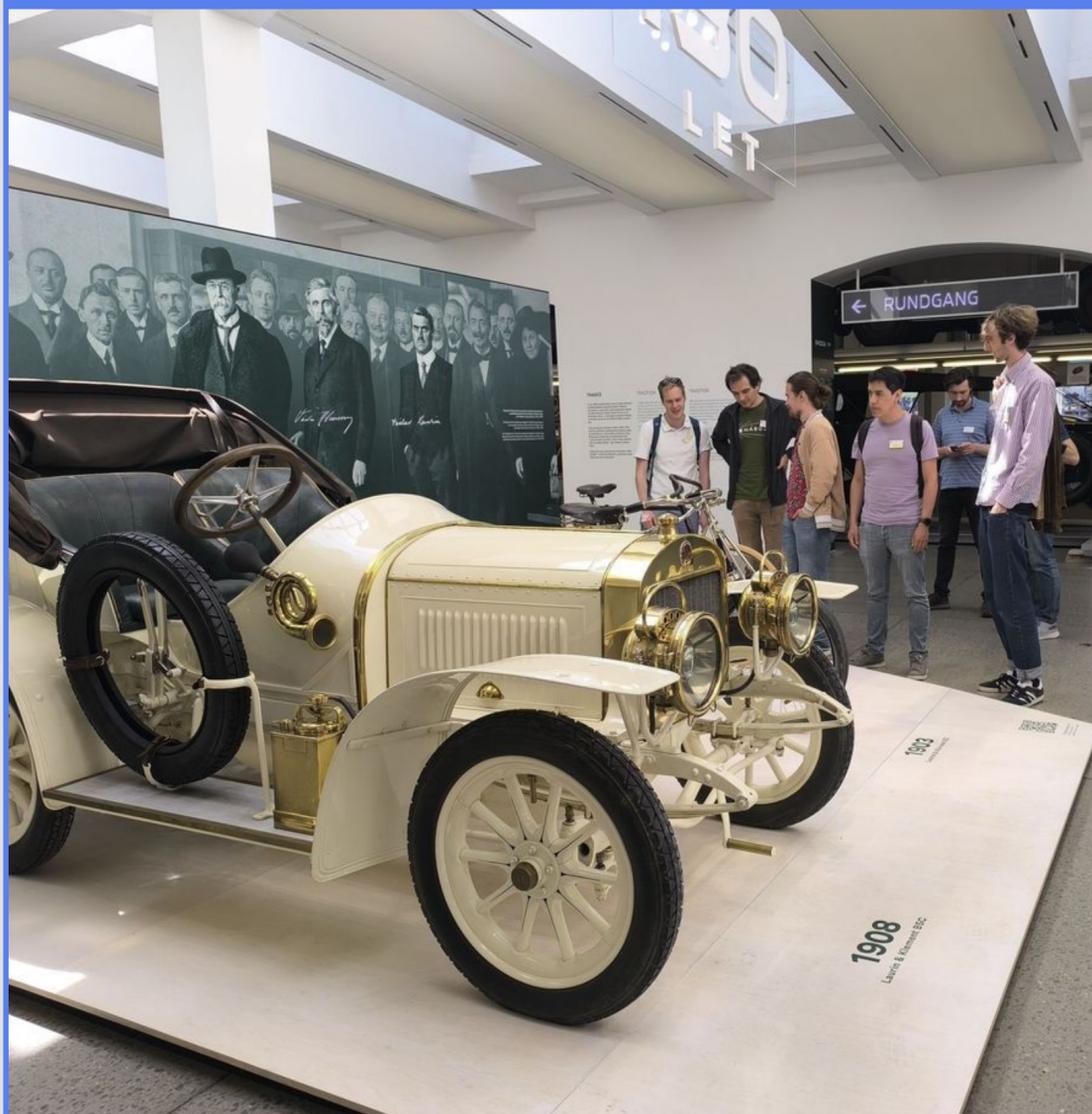


OPPORTUNITIES 2025
Opportunities in Magnetism
Prague, Czech Republic



The scientific sessions highlighted the remarkable progress in electromagnetism. Leading researchers - including Tomas Jungwirth, Rafael M. Fernandes, Igor Mazin, Roser Valenti, Changyoung Kim, Takatsugu Masuda, Lisa Michez, or Alexey Kimel - delivered inspiring talks on symmetry

But Magnetic Frontiers 2025 was not only about outstanding science, it was also about building community. The Organizing and Local Committee led by Marta Ruzickova worked closely to create an event that combined top-level research with meaningful interaction, networking, and fun. Set in the newly renovated Baroque Castle Liblice, owned by the Czech Academy of Sciences, the



principles, materials discovery, and device concepts. Exciting new results were presented

Excursion to Veltrusy Castle and Skoda Museum conference offered a unique setting in which all aspects - talks, accommodation, and meals - took place under one roof. The intimate atmosphere and beautiful surroundings encouraged spontaneous discussions, collaborations, and lasting connections. The program featured generous breaks, shared meals, and an

Bike
Challenge



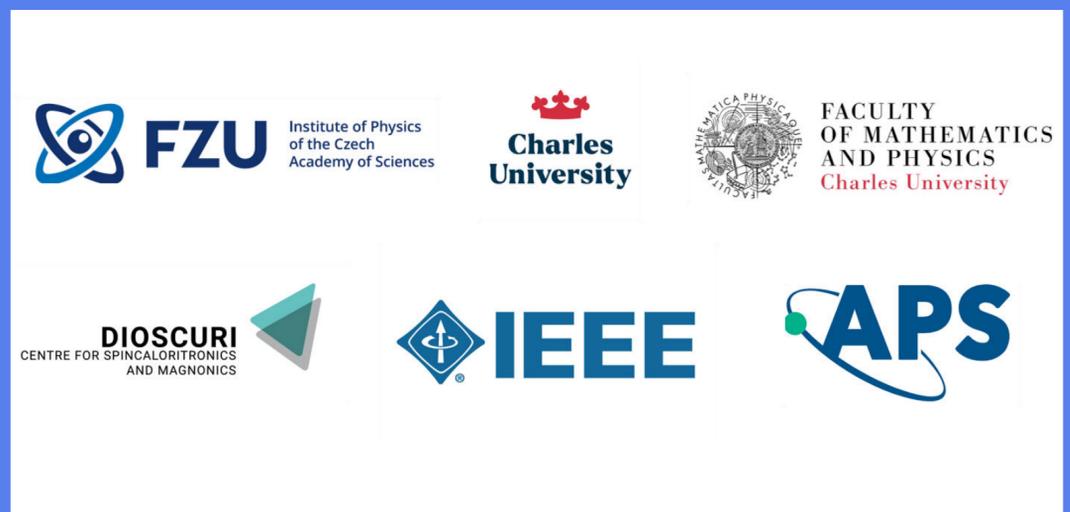
excursion afternoon to the Škoda Museum and Veltrusy Castle, ensuring that participants could recharge and connect beyond the lecture hall.

An unconventional experience for the participants was the Team Bike Challenge, for which participants raced to assemble children's bikes. The winning team earned bar vouchers, and all bikes were donated to a local charity supporting orphaned children - a memorable blend of teamwork and social impact.



Rodrigo Jaeschke Ubiergo, Rhea Hoyer, Beatriz Viña-Bausá and Luca Haag (from left to right)

The energy carried through to the poster sessions, filled with lively discussions and impressive presentations. Poster Awards went to Luca Haag, Rhea Hoyer, Rodrigo Jaeschke Ubiergo, and Beatriz Viña-Bausá, recognizing scientific excellence and creativity.



Special thanks to our sponsors.

Thanks to the support of IEEE and additional sponsors, the conference maintained affordable fees (€350 for students, €550 for regular participants, including full board). With help from dedicated volunteers and the Institute of Physics of the Czech Academy of Sciences, participants enjoyed seamless logistics and even organized airport transfers.



It's impossible to choose just one highlight from Magnetic Frontiers 2025 - every participant took away something unique. Yet, all shared a common sentiment: the experience was overwhelmingly positive. From early-career researchers to established leaders in the field, attendees praised the scientific quality, inspiring atmosphere, and sense of community that defined the conference.



Moments from the IEEE Magnetics Frontiers 2025 Conference venue



Here are a few quotes from participants across different career stages, reflecting the spirit of the event:



“My participation in the IEEE Magnetic Frontiers conference “Altermagnetism – New Opportunities in Magnetism” provided me with valuable insights into the challenges and recent developments in the emerging field of altermagnetism. The cutting-edge presentations and lively discussions highlighted the vitality and diversity of current research approaches. Held in a convivial atmosphere (and a very remarkable setting), the conference fostered fruitful exchanges and opened up new perspectives for my future work.”

Coline Thevenard from SPINTEC, France



“It was a pleasure attending last week’s conference in Prague, thank you very kindly for organizing such a nice event. Aside from the excellent set of talks and posters, I appreciated how intentionally you planned for community building. Room and board at a beautiful venue, excursions and the community service activity were all wonderful ways to connect the people behind the science.”

Nick Dale from Berkeley Lab, USA



“The IEEE Magnetic Frontiers conference in Liblice served as an outstanding platform for in-depth discussions on the latest advancements in altermagnetism, exploring its fundamental properties, material candidates, and interactions with superconductivity and ultra-fast optics. Contributions from renowned international experts, along with engaging poster sessions, fostered a collaborative and interactive atmosphere that, in my opinion, significantly enriched the discourse in the field of altermagnetism.”

Juraj Krempasky from PSI Switzerland



SiM X NYU K12 STEM Education WATTS Summer Program 2025

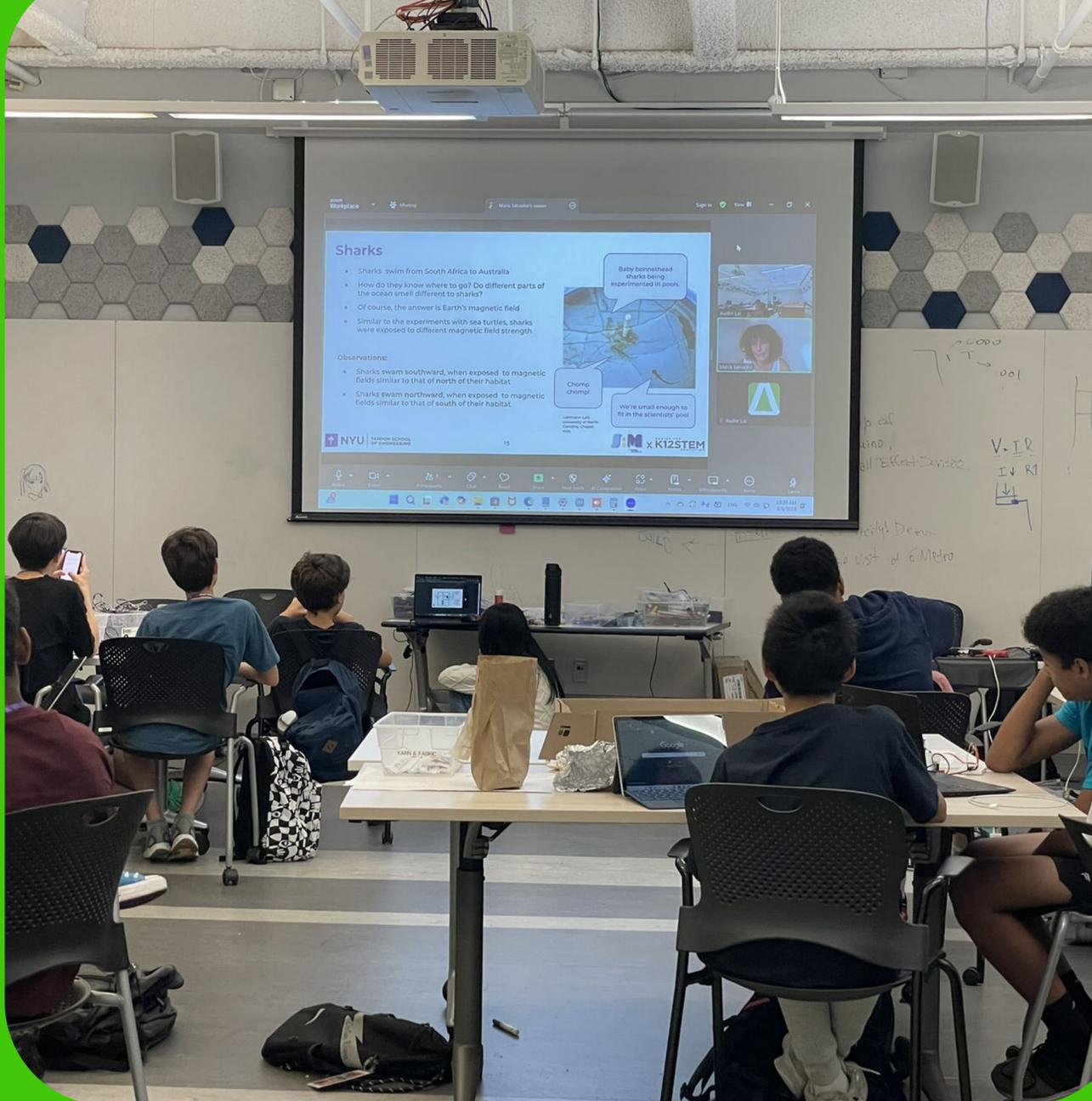
Students in Magnetism (SiM)

IEEE Magnetics Society

In the summer of 2025, Students in Magnetism (SiM) by the IEEE Magnetics Society partnered with the New York University (NYU) Tandon Center for K12 STEM Education to bring the world of magnetism to young learners through the WATTS Summer Program 2025. The initiative showcased the breadth of magnetics, brought to life through hands-on learning and visits to the state-of-the-art research labs at NYU. At the heart of the program was SiM graduate student ambassador Audre Lai, a graduate researcher at NYU's Kent Lab.



SiM graduate ambassador Audre Lai of NYU introducing the students to the world of magnetics and guiding them through their projects.



Guest lecturer María Salvador of ICMM-CSIC introduced her expertise of biomagnetism to the students, discussing intriguing topics such as the biological compasses of various organisms.

Hosted in the NYU K12 Center from July 28 to August 8, the program welcomed 34 rising 9th graders for an immersive exploration of the magnetic phenomena around them and the many real-world users. With the generous support from the NYU K12 Center and the curriculum designed by SiM, the students experienced a blend of academic rigor and experimental learning.

The students immersed themselves in topics that stretched from classic concepts like Earth's magnetic field and electric currents to the more advanced realms of biomagnetism, spintronics, and superconductivity. The goal was to help students see how magnetism underpins technologies across scales – from everyday devices to advanced scientific tools.

A defining feature of the program was the opportunity for students to enter several of NYU's state-of-the-art research laboratories, each chosen to give students a close-up look at contemporary magnetism-related research.

The first visit brought students to the Research in **Advanced Integrated Systems and Electronics (RAISE) Lab**, led by **Professor Hamed Rahmani** of the Department of Electrical and Computer Engineering. During this session, graduate student Desmond Wong from the RAISE Lab first introduced the students to fundamental principles and components of electric circuits, and explained how his research aims to harness electromagnetic phenomena for advancements in wireless communications. Based on student feedback, they learned the difference between DC and AC electric and magnetic fields, grasped the importance of noise in a signal, and understood that the ultimate goal of the research is to improve sensing sensitivity in wireless communications.



Lab visit to the RAISE Lab included insightful discussions and lessons from graduate student Desmond Wong of Raise Lab.



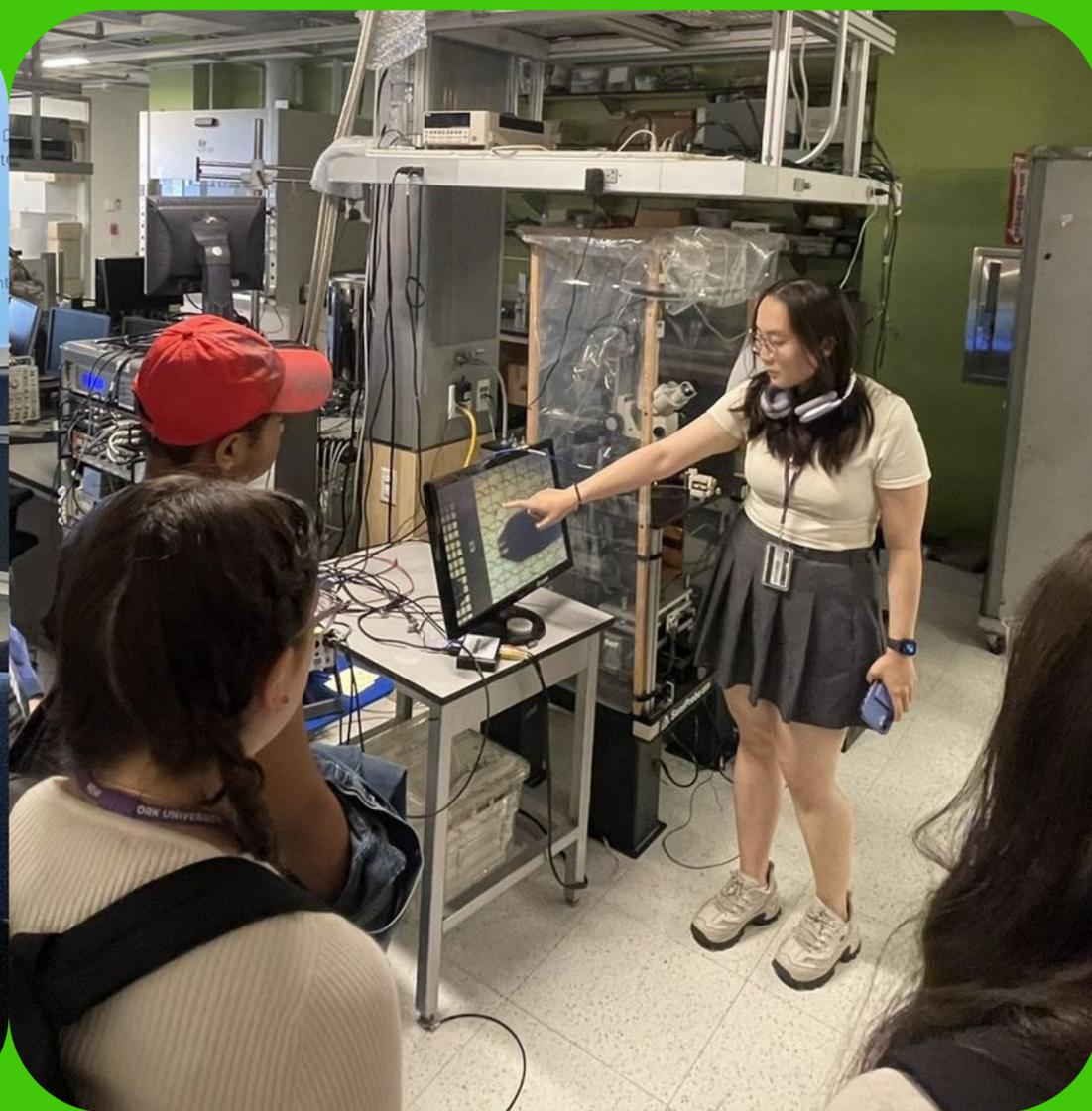
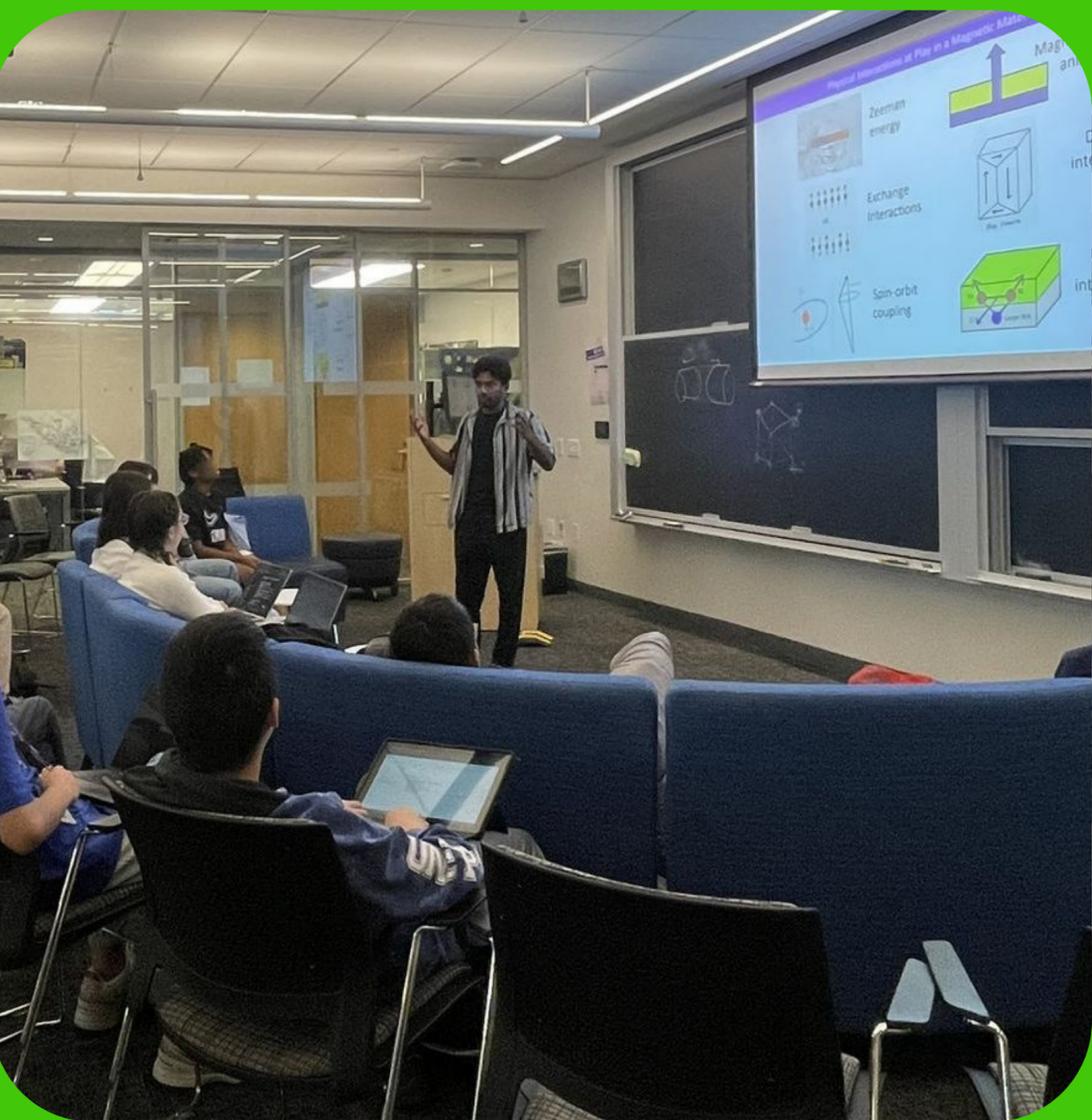
The second laboratory experience took place in the **Hybrid Nanomaterials Lab** led by **Professor Ayaskanta Sahu** of the Department of Chemical and Biomolecular Engineering. Here, students were introduced to the glove box and how it permitted the study of sensitive systems. Students were given an opportunity to practice using tools inside the controlled chamber. They then learned how researchers investigate quantum dots and nanomaterials, observing samples that emitted distinct colors and seeing how subtle variations in nanoscale structures shape material behavior

A later visit brought them into the **Kent Lab**, led by **Professor Andrew Kent** of the Department of Physics, where graduate researchers welcomed the students into a space dedicated to the study of spintronics, data storage mechanisms, magnetic resonance, nanomaterials, and the fabrication techniques behind them. The visit connected the principles of classical magnetism with aspects of quantum magnetism and helped the students understand how the research contributes to emerging technologies such as novel computing architectures and advanced memory storage solutions. The demonstrations included live measurements of magnetic properties using electromagnets and instrumentation, and one moment that drew particular excitement was seeing how a lock-in amplifier is capable of detecting extremely small voltages – an experience that clearly impressed the students.



Students were gowned up and introduced to glove boxes in the Hybrid Nanomaterials Lab and the processes that required these inert environments.

The final lab visit led the group to the **Avalos Lab** in the Department of Chemistry, led by **Professor Claudia Avalos**. Researchers in this group introduced the students to the concepts of electron spins, molecular geometry, and the computational methods used to investigate molecular behavior. The tour extended into the department's measurement facilities, where the students saw the wet lab spaces as well as the NMR and EPR chambers. This combination of explanation and facility tours gave them an understanding of how chemical and physical research is carried out in practice and how magnetism plays a role in sophisticated experimental setups.



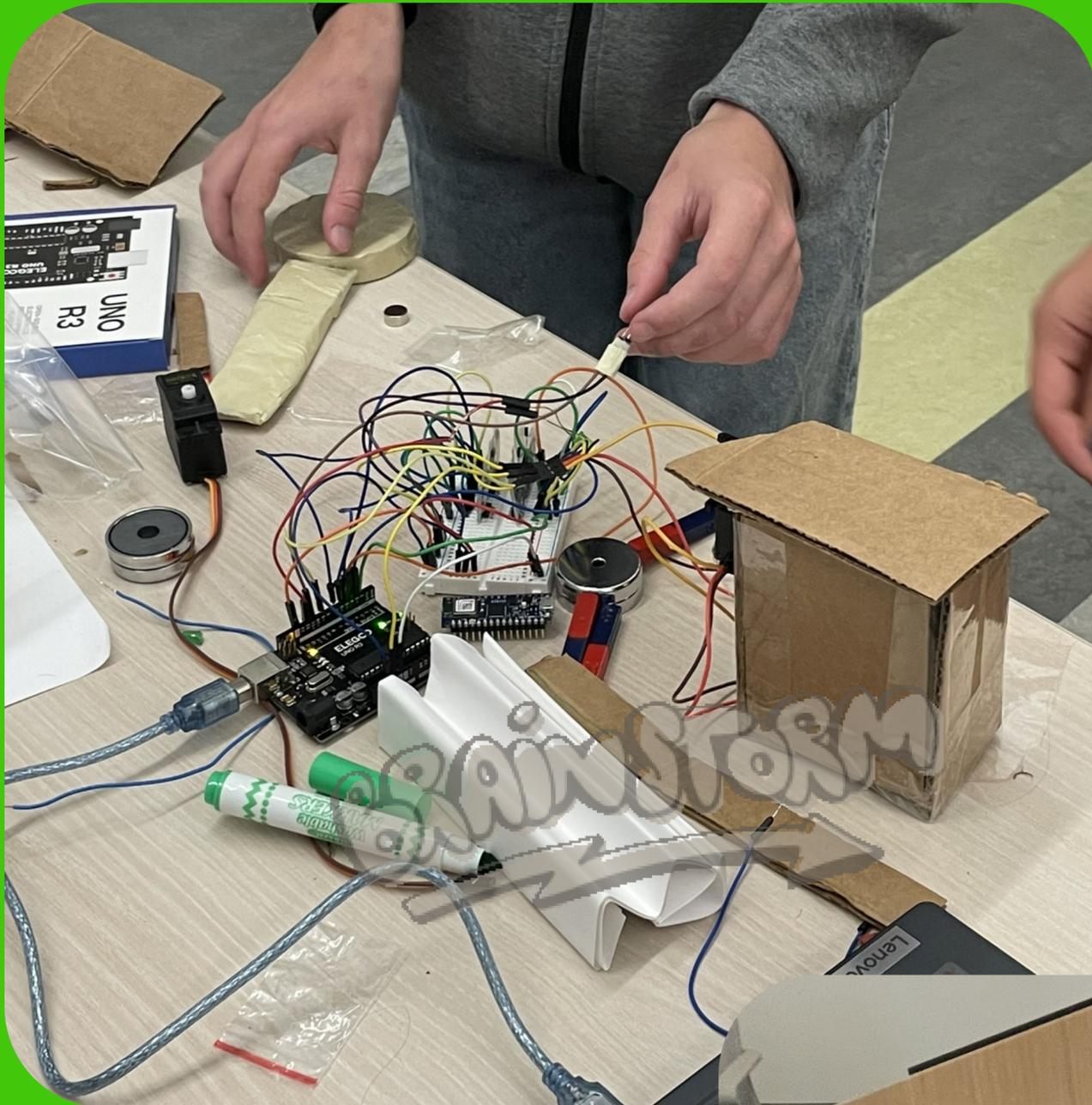
Researchers of Kent Lab introduced how their research contributes to modern technology, providing the much-needed transition to draw relations from their newly learnt knowledge from lectures to the lab bench.



Researchers of the Avalos lab showed the students around their lab facilities, introducing their expertise of molecular-level investigations.



While the lab visits provided a window into the world of active research, the students also spent substantial time building projects of their own. Toward the end of the first week, they were introduced to Arduino microcontrollers and given instruction on how to program and operate Hall effect sensors, devices that can detect nearby magnetic fields. With these tools in hand, the students broke into eight groups and were challenged to design an original project centered on the Hall sensor. Their creativity quickly took shape as they paired sensors with LEDs, buzzers, servo motors, and other simple components to create devices such as magnetic locks, magnetic safes, a magnetic sorter, and even a prototype “smart stove.” By the end of the program, each group presented its project, demonstrating not only what they had learned about magnetism but also their ability to apply engineering design principles from brainstorming to prototyping to refining their systems.



Students worked on their Arduino-based projects based on their newly acquired knowledge about magnetics.





Students presented their final products at the end of the program.



Throughout the entire program, Audre and NYU K12 educators fostered an atmosphere that made room for curiosity, experimentation, and thoughtful engineering. Rather than receiving magnetism as a static subject, students experienced it as an active discipline – one that spans physics, chemistry, electrical engineering, and materials science, and one that they were able to see practiced directly by scientists across several NYU departments.

The WATTS Summer Program 2025 closed with students proud of the devices they had built, energized by their exposure to research environments, and more confident in their understanding of how magnetism shapes real technologies.

We hope that many students will carry their new knowledge and experiences into their future STEM journeys.

SiM would like to take this opportunity to thank the following people for their generous support for the program:

*The NYU Tandon Center for K12 STEM Education and their passionate staff:
LuAnn Williams Moore, Director of Research and Program Engagement,
Susan J Hermon, STEM Initiatives and Operations Manager,*

*Professor Hamed Rahmani,
Professor Ayaskanta Sahu,
Professor Andrew Kent,
Professor Claudia Avalos,
and their lab groups who welcomed the students to their labs,*

*Guest Lecturer María Salvador,
Program Coordinator, Lecturer, Host, Project Mentor, Lab Excursion Chaperone,..., – Audre Lai,
And the IEEE Magnetics Society.*



*Students in Magnetism (SiM)
by IEEE Magnetics Society*



*Interested to collaborate on outreach activities?
Reach out to us at SiM@ieeemagnetics.org.
Find out more about SiM at our [website](#).*





Where Mountains Meet Science: Young Researchers @ ICFPM25 In Bariloche, Argentina

**Students in Magnetism (SiM), María
Salvador, Álvaro Gallo-Cordova &
Nahuel Nuñez**

A conference at the end of the world... literally

As young researchers, we're always excited (and a bit nervous) whenever we travel to a big international conference. New people, new science, new places... but also the classic question: "Will I actually talk to anyone outside my lab group?" Well, this time we didn't have to worry.

The International Conference on Fine Particle Magnetism (ICFPM25) took place from 19 to 23 October in the stunning city of San Carlos de Bariloche, Argentina, surrounded by snow-capped mountains, forests straight out of a nature documentary, and lakes as transparent as freshly cleaned sample vials. The venue, the historic Centro Atómico Bariloche, added its own charm: discussing nanomagnetism inside one of Argentina's most iconic research centers created a unique atmosphere for the week. An ideal setting for hosting another Young Researchers Networking Session, organized in collaboration with Students in Magnetism (SiM).

If you don't know SiM yet, think of us as the friendly "youth task force" of the IEEE Magnetics Society: a global community of students and early-career scientists creating spaces for connection, visibility, and fun during (and between) conferences.

And at ICFPM25? We did exactly that. This time, the event took place on the first day of the conference, that sweet spot when you've already spotted "age-related peers" in the corridors but you're still just shy enough not to talk to them... (yet).

What happened at the event...

We kicked off with a short introduction to what SiM is and what we do: student-led initiatives (especially those related to scientific dissemination such as MagnetiSiM), mentorship programs, virtual coffee hours, conference activities, and all the ways we try to help young researchers feel closer, more connected, and truly welcomed into the magnetics community. At SiM, we truly believe that being a student or early-career researcher isn't always easy, so we see SiM as a network where young fellows can feel connected, supported, and understood.



Everything is ready to start... and the lake clearly approved of our setup.

Then came the games... And of course, the food: because nothing brings people together like laughing and sharing something delicious, especially when it's expertly cooked on the barbecue by Nahuel. We are genuinely grateful to the conference chairs, Roberto Zysler and Elin Winkler, for providing both the resources and the venue: the "Quincho", a beautiful wooden cabin right by Lake Nahuel Huapi. The view from there was unforgettable.

Bingo time: Nothing breaks the ice better than Bingo. Its reputation precedes it and many previous conferences have turned this game into a SiM classic and a hit. People get moving, talking, and approaching complete strangers with questions like "Do you work with GMR?" or "Can you draw an $M-H$ loop with your eyes closed?" Instant bonding.

Once people started getting to know each other (and the food was ready), conversations flowed more naturally. That's when we introduced our new activity: MagPictionary. And yes, it was exactly what it sounds like.

MagPictionary – where science meets... questionable art:

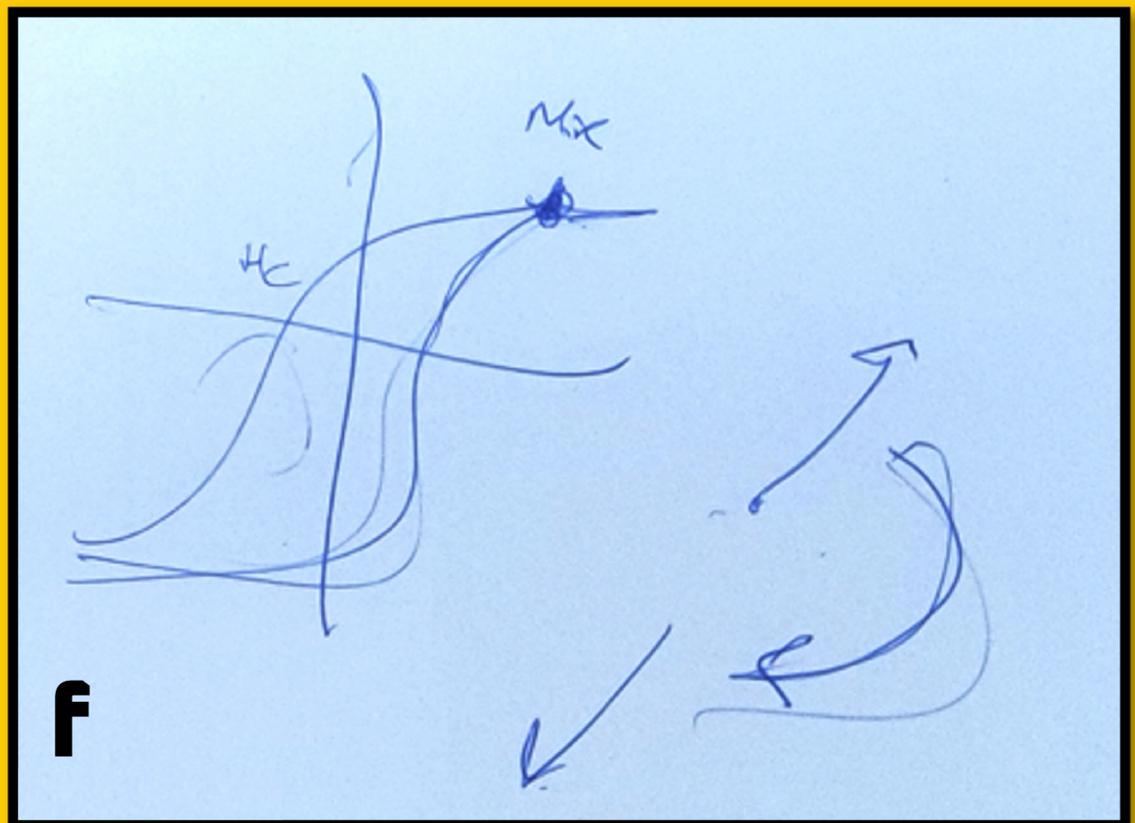
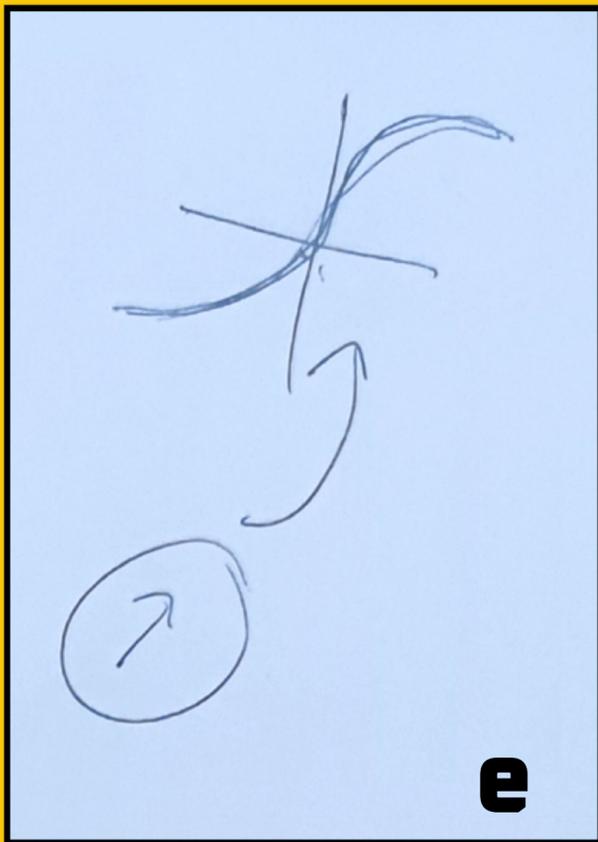
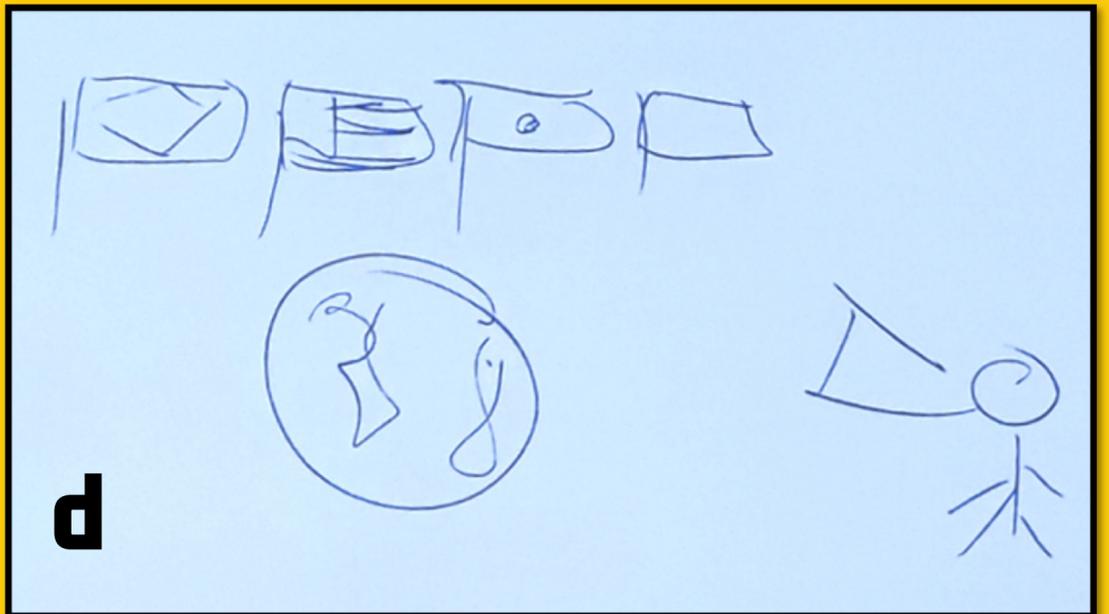
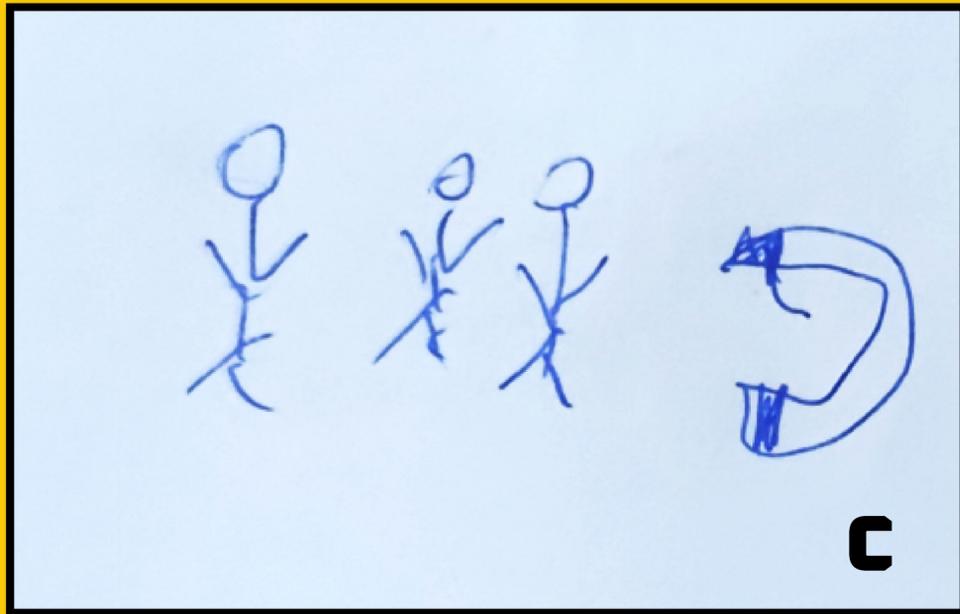
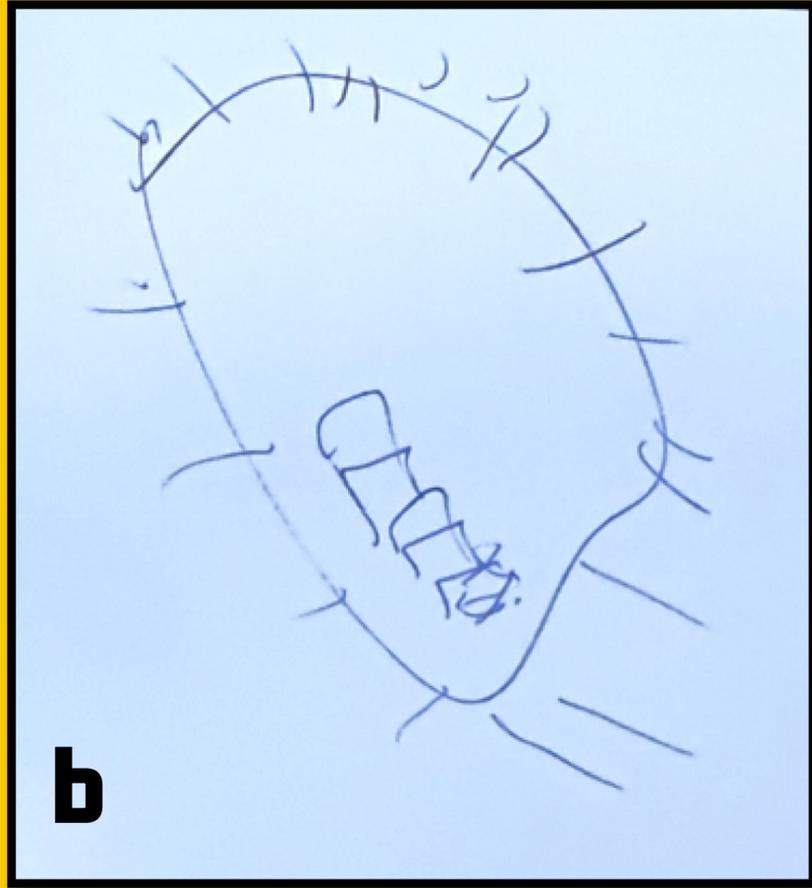
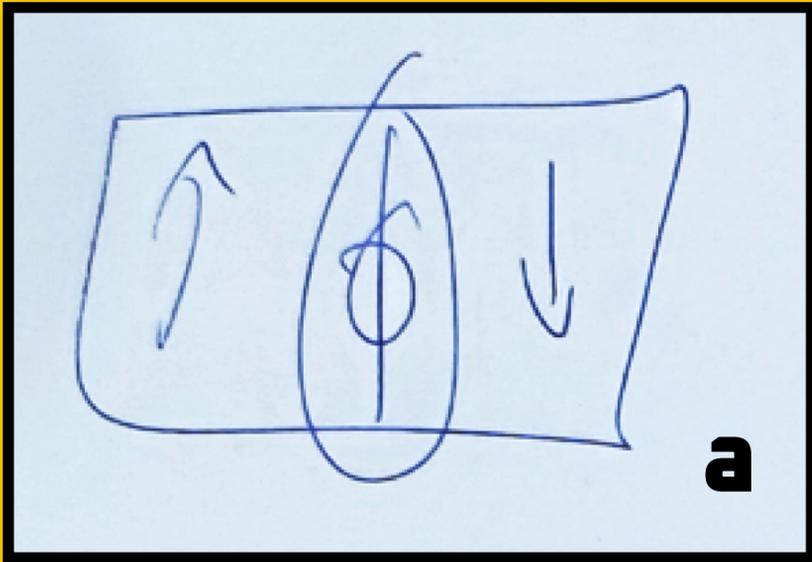
Participants were divided into groups, and one brave soul from each team had to draw (with no words, no symbols, no gestures!) a magnetic concept. Anything from hysteresis loops to Néel relaxation. Watching how creative, chaotic, or simply hilarious the drawings became was easily one of the highlights of the conference. Have you ever wondered whether you can distinguish an experimentalist from a theorist just by the face they make when they read the word they're supposed to draw?

Turns out... yes, you can.

Some sketches were shockingly accurate. Others... well, let's just say we're very glad these folks are scientists and not artists. We're sharing a few drawings here, can you guess the magnetic concept behind them? 🧐

Wanna play?



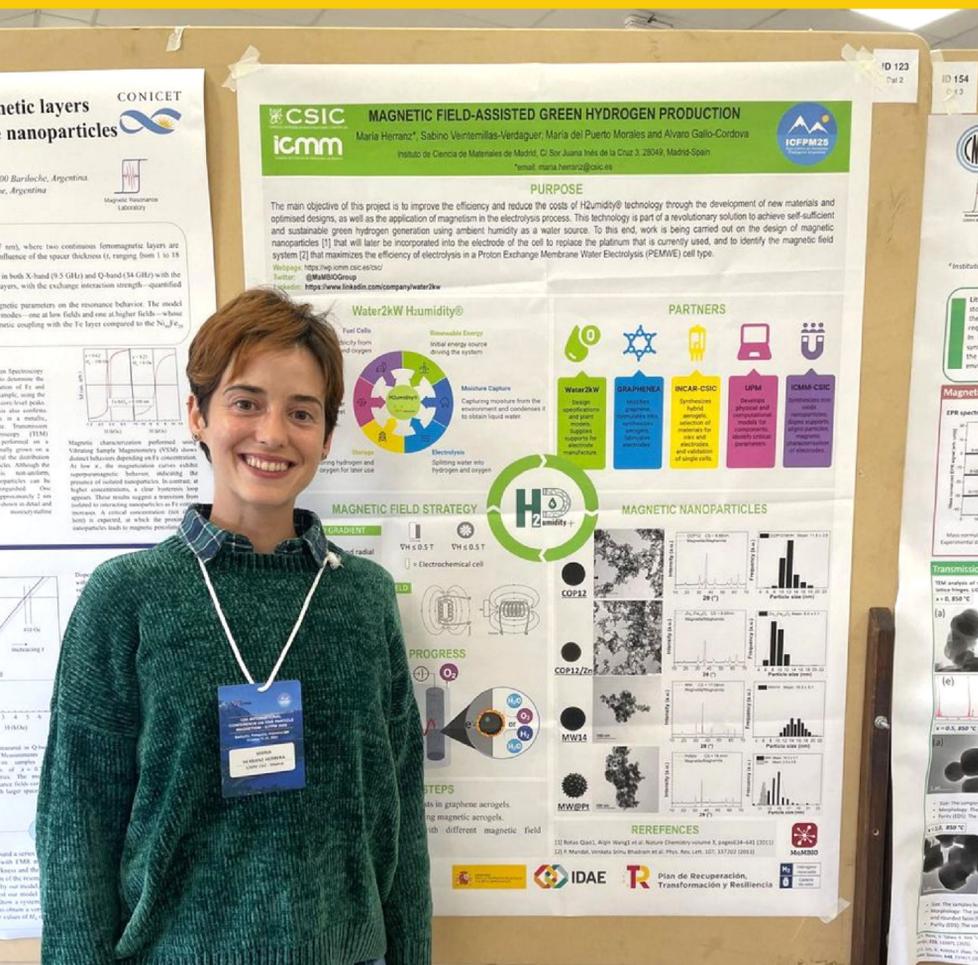


Find out the solutions in the following page >>>

As a fun extra, we also handed out SiM goodies: special prizes for the winners, and small gifts for everyone who joined, so each participant went home with a little reminder of the day.

Voices from the room

“Participating in the Young Researchers Meeting at the magnetism conference was a very enriching experience. It provided a welcoming space to exchange ideas and learn about the diverse research being conducted by colleagues who are at similar stages in their careers. I particularly appreciated the games and supportive atmosphere, which fostered collaboration and helped to create a sense of community among us. Overall, the meeting was inspiring, motivating, and a lot of fun.” - María Herranz (*PhD student at the Instituto de Ciencia de Materiales de Madrid, Spain*)

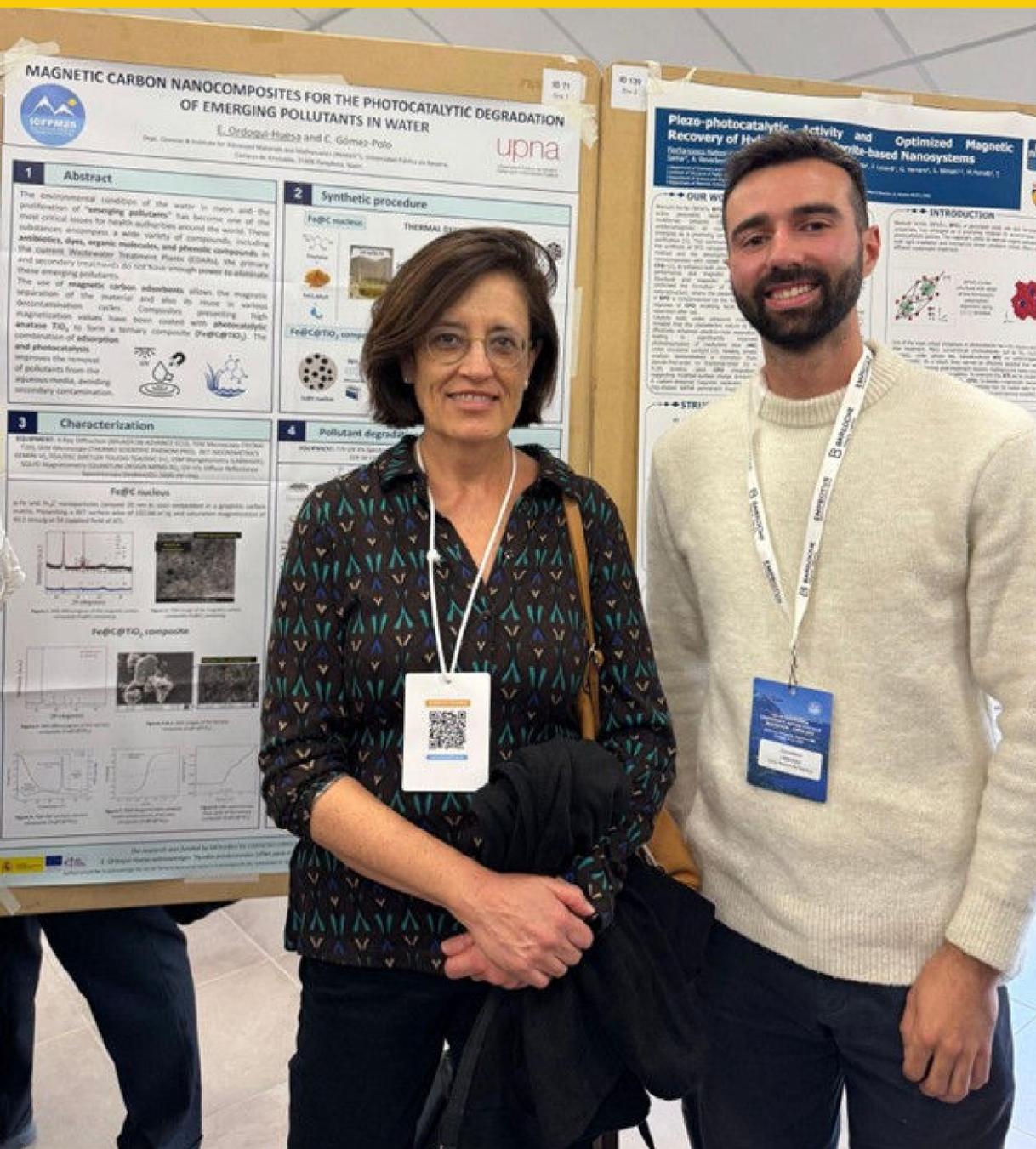


Top: María proudly presenting her poster during the poster session. Bottom: Anthony, Edu, Nahuel, and María hiking to La Cascada de los Duendes, proving that magnetism researchers can also survive the wild.



Solutions to previous quiz:
a - Domain wall
b - Magnetotactic bacteria
c - Students in Magnetism
d - ICFPM (International Conference on Fine Particle Magnetism)
e - Superparamagnetic nanoparticle
f - Magnetization reversal

Top: Eduardo and his supervisor, Prof. Cristina Gómez Polo (UPNA), aligned and ready for the poster session. Bottom: Álvaro, Edu, and Nahuel at one of Bariloche's "we-lost-count-how-many" beautiful viewpoints.



“I found it as a great opportunity to meet other young researchers and facilitate our communication for the remaining days of the conference. The event started at 8pm and took place inside a wooden house close to playa Bonita. When we arrived, we were received by Alvaro, Maria and Nahuel, who provided us with some snacks and beers.

During the event, we were involved in many different activities. The first one was a scientific bingo which required us to interact with the rest of the participants and find out the name of the person who met the requirements of the bingo square. Afterwards, Nahuel surprised us with some burgers filled with so much cheese and sauce.



Afterwards, we started the second activity, which was the most fun in my opinion. We were divided into groups of 4 people, one person of each group was given a word related to magnetism. That person had to draw to the rest of the components of the team and the team who guessed it first was awarded with one point.

To conclude, Maria, Nahuel and Alvaro gave us a talk about “Students in Magnetism” and explained to us the different initiatives and then we took a group photo. We then helped the organizers cleaning and took the bus back home. This activity was a great tool to meet mostly everyone so we could get in touch with people more easily for the rest of the conference. It was a really nice event and I enjoyed it so much!!” - Eduardo Odorqui (*PhD student at Universidad Pública de Navarra, Spain*)

“During the last ICFPM held in Bariloche (Argentina), I had the opportunity to participate in the Students in Magnetism event, which took place on the first day of the conference. This opportunity allowed us to keep in touch and continue discussing throughout the remaining days of the conference, creating an excellent environment and fostering a sense of community among young researchers.

The students’ event took place in a wooden house near Playa Bonita, right after the poster session of the first conference day. We were welcomed by the Students in Magnetism organizers: Álvaro, María, and Nahuel, who introduced the organization: what they do, how it is structured, and how we can get involved. For some of us, this was the first conference purely focused on magnetism, and it was extremely valuable to be introduced to the community and learn about the opportunities it offers.

We then moved to the second game, where we were divided into four groups and played a magnetism-based Pictionary. Apart from having a great time, we also learned magnetic concepts that some of us were not familiar with, and the game helped us understand each other’s research topics and theoretical backgrounds. Fortunately, all groups won some prizes and had the chance to showcase both their artistic and scientific skills.

It was a lovely event, and I am already looking forward to the next congress to see everyone again — hopefully as part of the organizing team as well.” Genís Lleopart Motis, *CNR-Istituto Officina dei Materiali (IOM), Cagliari, Italy*



Genís giving us his testimonial from the mountains, serving science and style.



Group photo at the Quincho, with Lake Nahuel Huapi giving us the best possible backdrop.

So yes, this is what happened at our little gathering at the end of the world, in a very cold region where spring was just beginning to bloom... and so were the connections among the youngest researchers in our magnetics community. Moments like these remind us why SiM exists: to bring young individuals together, to laugh, to learn, and to feel part of something bigger.

This session wouldn't have been possible without the tremendous support from the ICFPM25 organizers. A huge thank you to:

- Roberto Zysler and Elin Winkler, conference chairs
- Álvaro and Nahuel, our fantastic local volunteers
- Ron Goldfarb, always on time to get the iconic goodies

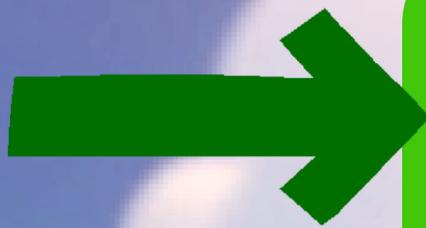
And of course, to every student and young researcher who joined, played, laughed, and helped build a stronger community in magnetism.

We can't wait to see you again at future SiM activities, either at upcoming conferences (have a look at the next INTERMAG 2026 in Manchester, UK!) or online. Until then... keep the magnetic moments aligned.



Awards & Nominations Calendar





IEEE FELLOW
FEB
7

DISTINGUISHED
JUN
17
LECTURER

ACHIEVEMENT
JUL
31
AWARD

DISTINGUISHED
SERVICE
JUL
31
AWARD

MID-CAREER
JUL
31
AWARD

EARLY-CAREER
JUL
31
AWARD

Conference & School Calendar

FROST 2026

2026 Frontiers in Spin Technology

5 January 2026 - 6 January 2026

Paris, France



INTERMAG 2026

2026 IEEE International Magnetics Conference

13 April 2026 - 17 April 2026

Manchester, UK



MagSocSS 2026

2026 IEEE Magnetics Society Summer School

14 June 2026 - 19 June 2026

Cairo, Egypt



THERMAG 2026

International IIR THERMAG XI conference

7 June 2026 - 11 June 2026

Ljubljana, Slovenia



PM '26

PHYSICS OF MAGNETISM 2026

22 June 2026 - 26 June 2026

Poznań, Poland



EMSA 2026

2026 European Magnetic Sensors and Actuators Conference

6 July 2026 - 9 July 2026

Eindhoven, Netherlands



UMC 2026

2026 Ultrafast Magnetism Conference

28 September 2026 - 2 October 2026

Eindhoven, Netherlands



MMM 2026

71st Annual Conference on Magnetism and Magnetic Materials

2 November 2026 - 6 November 2026

Honolulu, HI, USA





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