Nicolás Cabrera University Institute of Materials Science

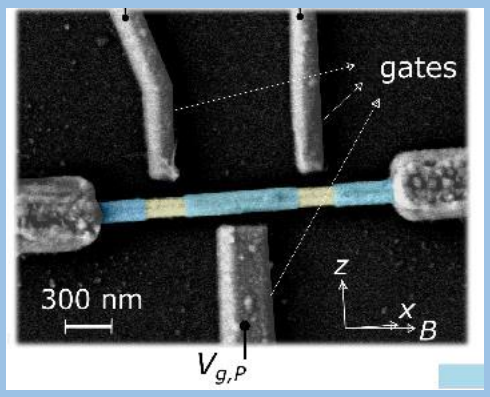
Activity report 2024

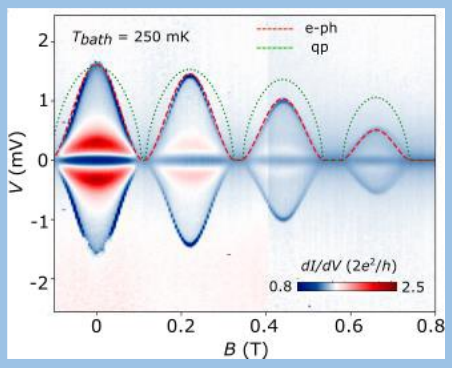
Instituto Nicolás Cabrera

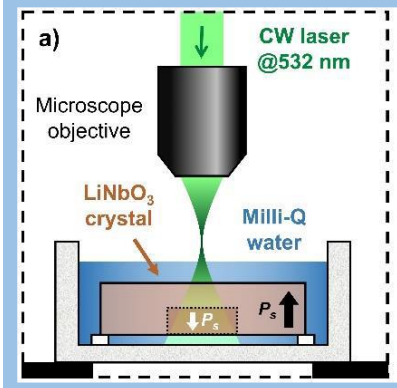
www.inc.uam.es

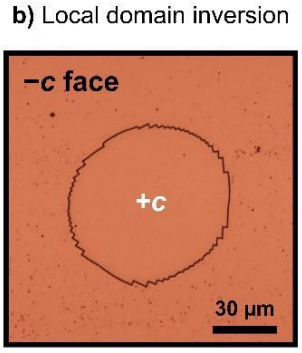
Cover image:
Figures selected from the articles awarded in the three calls of the
"Chema Gómez-Rodríguez" Awards to young researchers.

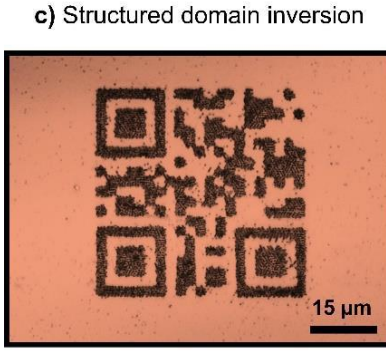
Nicolás Cabrera
University Institute of Materials Science











ACTIVITY REPORT 2024

Edited by Fabrice Leardini in March, 2025

CONTENT

Foreword

Dear Members of the INC,

It is a pleasure to once again present the annual activity report of the Nicolás Cabrera Institute (INC) for the year 2024.

As you may recall, elections for the Institute's director were held last July. I would like to take this opportunity to express my gratitude for your efforts in voting and for your confidence in re-electing me. Additionally, the INC's leadership team was renewed and has since been working with renewed enthusiasm.

Throughout 2024, the Institute has continued its usual activities. Among them, our International Summer School stands out as always, and this year it reached its 30th edition! Specifically, the XXX International Summer School Nicolás Cabrera focused on the topic of energy storage and its role in the necessary transition toward a sustainable energy future, under the title: *"Energy Storage Systems to Face the Climate Challenge: Sustainable Development of Li-ion Batteries."* The Summer School was led by Professors Carmen Morant and Celia Polop, and the Rector of UAM, Amaya Mendikoetxea, participated in its opening session.

Within this activity report, you will find more detailed information about this Summer School, as well as about our *Frontiers in Materials Science* colloquium series. This past year, we had the honor of welcoming guest speakers Mark Ediger, Rosa Palacín, and Jörg Schmalian. Both activities were largely funded through a collaboration agreement with the BBVA Foundation, to whom we extend our gratitude for their continued support. For the first time, this agreement was managed through the University Foundation (FUAM), which was also responsible for the technical secretariat of both the Summer School and the Colloquia.

And finally, but no less importantly, on December 13th, we held our traditional *Young Researchers Meeting* at "La Cristalera" residence, marking its 27th edition with approximately 80 attendees, the vast majority of whom were young researchers associated with the INC. As detailed in this report, among the participants were the eleven Physics students awarded the opportunity to carry out a small research project (thanks to the financial contributions of our departments and IFIMAC), who presented a poster. Additionally, the two young researchers from the Institute who won one of the two *"Chema Gómez-Rodríguez Awards"* for outstanding publications, in its fourth edition, also participated. These two researchers each gave a talk during the event, immediately following the invited external speaker, Professor María Valera del Arco.

As I mentioned in the last Institute Council meeting on February 28th, the list of articles published by Institute members, which is included in this Annual Activity Report and is used by the UAM Vice-Rectorate for Scientific Policy to evaluate the activity and performance of institutes and research centers, only includes publications that explicitly mention the INC affiliation. In 2024, we continued to grow and were able to register 128 articles, but surely there could be more. Please remember to include the reference to the ***Instituto Nicolás Cabrera (INC), Universidad Autónoma de Madrid*** in the affiliations of your articles; otherwise, they will not be counted as publications by INC members.

I would also like to highlight that over the past year, we undertook a necessary renewal and update of the INC's website: https://www.inc.uam.es/. Among other important data and information, you can find the list of publications associated with the Nicolás Cabrera Institute, categorized by year and author, and organized through the Zotero system. Please feel free to check it at any time and notify us of any errors or omissions regarding your data on the website.

Furthermore, at the aforementioned Institute Council meeting in February 2025, the addition of 14 new Institute members (4 PhDs and 10 non-PhDs) was ratified. At the same time, we continue to make a meticulous effort to account for departures, typically due to retirements or the completion of contracts for doctoral and postdoctoral researchers. Currently, the Nicolás Cabrera Institute has 145 members, 85 of whom are permanent members according to UAM regulations (see the complete list in the final section of this report).

For this year, 2025, we have planned a calendar of activities that is similar to, or perhaps even better than, that of 2024. I encourage you to continue participating directly in these activities, as well as to pass on the information to students and young researchers in your groups, who are the ultimate beneficiaries of our efforts to promote, train, and disseminate research in the vast field of Materials Science.

Miguel Ángel Ramos

INC Director

“Nicolás Cabrera” International Summer School”

The **XXX International Summer School of the Nicolás Cabrera Institute (INC)** was held the week of September 2-6, 2024, at the residence "La Cristalera" in Miraflores de la Sierra, under the title: **"Energy Storage Systems to face the Climate Challenge: Sustainable development of Li ion batteries"**. This edition focused on one of the most relevant and urgent topics of today: energy storage and its key role in the transition to a sustainable and fossil fuel-free future.

The School was inaugurated with the presence of the rector of the UAM, Amaya Mendikoetxea, and the director of the INC, Miguel Ángel Ramos, who highlighted the importance of these International Summer Schools and research in the field of energy storage and its relevance to face current climate challenges. Together with them, the organizers Carmen Morant and Celia Polop welcomed the participants, creating an environment conducive to the exchange of ideas and collaboration.

The School brought together 43 young researchers, mainly PhD and post-doctoral students, from various parts of the world, including countries such as France, Germany, Denmark, Austria, Pakistan, the Czech Republic, Slovakia, Egypt and Colombia, in addition to Spain. The geographical diversity of the attendees helped to build the international character of the School, offering attendees the opportunity to interact with young researchers from different cultures and perspectives. In addition, 10 internationally renowned speakers from both the academic and research fields participated, who presented the latest advances in the field of energy storage, covering topics such as solid-state batteries, analysis and modelling techniques, and sustainability in battery development.

The profile of the attendees was mainly physicists and chemists involved in battery research. However, there were also students who were beginning their PhD or Master's degree in other subjects and who showed interest in this field, including engineers and other related profiles.

Group picture of the 2024 International Summer School at the Miraflores de la Sierra site.

The list of speakers who participated in the School (lectures, workshops and special sessions), their affiliations and the topics of their talks is as follows:

María C. Asensio

Materials Science Institute of Madrid (ICMM) – CSIC, MATINÉE: CSIC Associated Unit between ICMM and the Materials Science Institute of Valencia University (ICMUV), Spain.

Introduction to energy storage systems

Philippe Knauth

MADIREL, Aix Marseille Université, France.

Solid-state Li-ion conductors

Solid-state Li batteries

A. Alec Talin

Sandia National Laboratories, Livermore, California, USA.

Transport, interfaces and degradation in thin-film solid-state batteries

Enrique Vasco

Materials Science Institute of Madrid (ICMM), Spanish National Research Council (CSIC), Spain.

Stress in batteries and mechanical properties

Qiong Cai

University of Surrey, United Kingdom.

Multiscale modelling of materials and processes in batteries

Christine Kranz

Ulm University, Germany.

Scanning electrochemical probe microscopy studies of solid/electrolyte interfaces

Santhana Eswara

Luxembourg Institute of Science and Technology, Luxemburg.

Ion and electron beam analysis techniques for batteries

Martin Meedom Nielsen

Technical University of Denmark, Denmark.

Free-electron X-ray laser analysis techniques for batteries

Enrique G. Michel

Condensed Matter Physics Center (IFIMAC), Universidad Autónoma de Madrid, Spain.

Synchrotron-based characterization techniques of Li-ion and Na-ion batteries

Maider Zarrabeitia

Helmholtz Institute Ulm, Germany.

Sustainability in batteries

The "Nicolás Cabrera" International Summer School has been celebrated annually since 1994 and the Fundación BBVA has supported its organization since 2002.

Fundación BBVA

Colloquia

In 2024, three conferences were given as part of the series of colloquiums "**Frontiers in Materials Science**" dedicated to Professor Nicolás Cabrera, in collaboration with the BBVA Foundation:

1) Prof. **Mark Ediger**, University of Wisconsin-Madison, USA. "Ultrastable and anisotropic vapor-deposited glasses of organic semiconductors", 14th October 2025
2) Prof. **Rosa Palacín**, Instituto de Ciencia de Materiales de Barcelona (ICMAB-CSIC), Spain. "Back to the future: beyond Li-ion batteries". 20th November 2024.
3) Prof. **Jörg Schmalian**, Karlsruhe Institute of Technology, Germany. "Superconductivity without quasiparticles". 18th December 2024

During their brief stay at UAM, Professors Ediger, Palacín and Schmalian visited some research laboratories of related groups to foster new scientific collaborations.

Pictures of the 2024 colloquium given by Prof. Schmalian and the coffee offered before the conference.

The colloquium series "*Frontiers in Materials Science*" is held annually starting in 2022, following the previous colloquium series "*Frontiers in Condensed Matter Physics*" held annually between 2013 and 2020. Both series are being supported by the BBVA Foundation's "Frontiers in Science and Technology" program since its inception in 2013.

Fundación BBVA

Awards for Undergraduate Physics students

The Nicolás Cabrera Institute awarded 11 prizes funded by the Departments of Theoretical Condensed Matter Physics, Condensed Matter Physics, Applied Physics and Materials Physics, the Condensed Matter Physics Center, IFIMAC (two prizes each except for the Materials Physics Department which funded three prizes). These awards aim to attract physics students towards research groups and to promote the scientific work of the Institute.

The following is the list of the awarded students, together with the titles of their presentations at the XXVII Young Researchers Meeting:

Department of Theoretical Condensed Matter Physics:

1. Juan Manuel González Monge, “Electron dynamics in atoms driven by intense quantum light”
2. Alejandro Cabanelas Serrano, “Signatures of spin fractionalization in Kitaev materials”

Department of Condensed Matter Physics:

3. Marcos Puerto Matías, “Transport of colloidal particles in periodic grid of obstacles”
4. Lara Suárez García, “Visualizing magnetic topological material NdSb”

Department of Applied Physics:

5. Daniel Santiso Herrero, “Optimisation of nanomaterials for their integration into lithium-ion batteries”
6. Raquel Calvo Marín, “Growth and characterization hybrid systems for antiferromagnetic spintronics”

Department of Materials Physics:

7. Andrea Herrero Otermin, “Polarisation effects in emitted light from topological lattices of exciton-polaritons”
8. Bruno Pérez Gómez, “All-Optical Modulation of Charge Carriers in MoSe2/LiNbO3”
9. Adolfo Menéndez Rua, “Tunable Fabry-Pérot Microcavity for Photonic Coupling of Emission in Quantum Materials”

IFIMAC:

10. Daniel Ruano Medina, “Restricted Boltzmann Machines for Solving Many-Body Quantum Systems”
11. Marcos Jiménez, “Study of AFM tip-induced ion migration on a solid-state ion conductor”

Photograph of the students awarded with the INC prizes.

"Chema Gómez-Rodríguez" Awards for young researchers

The Nicolás Cabrera Institute convened the Third Edition of the "Chema Gómez-Rodríguez" Awards, so named in memory of Professor José María Gómez Rodríguez and financed by the Department of Condensed Matter Physics, to promote the excellent work of the young scientists of the INC recognizing their contributions in high-impact publications during the year 2023. In this call, 11 applications were submitted, among which the commission made the following selection of students and their article published in 2023:

First Prize, Angel IBABE AVILÉS, for his publication "Heat Dissipation Mechanisms in Hybrid Superconductor− Semiconductor Devices Revealed by Joule Spectroscopy", Nanoletters, vol.24 (2024)).

Hybrid superconductor-semiconductor systems have been widely studied in the past decade for the development of novel quantum devices, with focus on both the topological and trivial regimes. Heat transport, on the other hand, still remains relatively unexplored in such systems, and self-heating effects have been generally overlooked, which is surprising given that heating becomes increasingly more important at very low temperatures, with potential implications for device performance. To minimize detrimental effects, it is then crucial to understand the fundamental heating and cooling processes in such hybrid systems. In this work, we address these issues by studying devices based on full-shell InAs-Al nanowires. Concretely, we develop a technique dubbed "Joule spectroscopy" that detects Joule effect-driven superconductor-to-normal transitions in a device by means of signatures in electron transport.

We further make use of the Little-Parks effect to reveal the dominant heat dissipation mechanism for distinct superconducting regions of a hybrid device. We find that the primary cooling mechanism for grounded and floating superconductors is different, i.e., quasiparticle diffusion and electron-phonon coupling, respectively. As a result, we conclude that floating superconductors are significantly more susceptible to heating, with a cooling power approximately two orders of magnitude lower than that of grounded superconductors.

Second Prize, Carlos SEBASTIÁN VICENTE for his publication ***"All-optical domain inversion in LiNbO3 crystals by visible continuous-wave laser irradiation"***, ACS Photonics, **11**, 2624 (2024).

LiNbO3 is a distinguished multifunctional material where ferroelectric domain engineering is of paramount importance. This degree of freedom of the spontaneous polarization remarkably enhances the applicability of LiNbO3, for instance, in photonics. Electrical poling is the standard method to create ferroelectric domain structures in LiNbO3. This method consists in the application of an external electric field above the coercive threshold of LiNbO3 to locally switch the spontaneous polarization. In this work, we report the first method for all-optical domain inversion of LiNbO3 crystals using continuous-wave visible light. While we focus mainly on iron-doped LiNbO3, the applicability of the method is also showcased in undoped congruent LiNbO3. The technique is simple, cheap, and readily accessible. It relies on ubiquitous elements: a light source with low/moderate intensity, basic optics, and a conductive surrounding medium, e.g. water (see Figure 1a). Light-induced domain inversion is unequivocally demonstrated and characterized by combination of several experimental techniques: selective chemical etching (Figure 1b), surface topography profilometry, pyroelectric trapping of charged microparticles, scanning electron microscopy, and 3D Čerenkov microscopy. The influence of light intensity, exposure time, laser spot size, and surrounding medium is thoroughly studied. To explain all-optical domain inversion, we propose a novel physical mechanism based on an anomalous interplay between the bulk photovoltaic effect and external electrostatic screening. Finally, we also explore the possibility to fabricate arbitrary domain patterns using structured light (see Figure 1c). Overall, our all-optical method offers straightforward implementation of LiNbO3 ferroelectric domain engineering, potentially sparking new research endeavors aimed at novel optoelectronic applications of photovoltaic LiNbO3 platforms.

The INC's external Scientific Advisory Committee, formed by Alicia de Miguel (ICMM – CSIC, Spain), Akhlesh Lakhtakia (Pennsylvania State University, USA), Herre Van der Zant (TU Delft, Netherlands) and Cristian Urbina (CEA – Saclay, CNRS, France) selected the awarded papers.

Photograph of the winners with Dr. Alicia de Andrés, member of the Scientific Advisory Committee and the director of the Institute in the delivery of diplomas.

Young Researchers Meeting

Picture of the opening ceremony of the meeting

The XXVII edition of the Young Researchers Meeting organized by the Instituto Nicolás Cabrera (INC) was a resounding success, bringing together about 80 attendees for a day of scientific exchange and dissemination. The event took place on Friday, December 13, 2024, at "La Cristalera" centre in Miraflores de la Sierra.

The meeting featured a total of 12 oral presentations, with two of them given by the recipients of the prestigious Chema Awards, recognising outstanding publications in their doctoral research. In addition, 30 research posters were presented by PhD students, and other 11 posters by undergraduate physics students who were honoured with awards for their excellent work in the field.

The Young Researchers Meeting provided a unique platform for young researchers and doctoral students conducting research at the INC to present their work in a professional conference format. The event was marked by dynamic discussions, scientific networking, and the exchange of ideas between researchers at all stages of their academic careers.

The **program of the meeting** was:

The first session was moderated by **Celia Polop**

The opening talk of the event was delivered by Professor María Varela, a distinguished researcher of the Complutense University of Madrid (UCM), who set the tone for a day of high-level scientific presentations and discussions. The title of her presentation was "Atomic resolution studies of nanomaterials in the electron microscope".

Next, the students with the "Chema Gómez-Rodríguez" award for the best research works published this year by predoctoral students received their diplomas and presented their research work as a small seminar:

Angel Ibabe Avilés, "Heat Dissipation Mechanisms in Hybrid Superconductor–Semiconductor Devices Revealed by Joule Spectroscopy"

Carlos Sebastián Vicente, "Photovoltaic charge lithography on passive dielectric substrates using active Fe:LiNbO3 stamps"

Later, the Research Awards ceremony for Physics students took place.

Subsequently, there was the first poster session, in which the young researchers presented their communications, including some of the award-winning Physics students who presented the results of their prize-associated research in this format.

In the second session, moderated by Mercedes Hernando, a selection of communications was presented by the following young researchers:

Nicol Caetano Zeballos, *"Unlocking the Potential of Gold Nanostars: Enhanced Heat Delivery through Geometry Optimization"*

Alejandro Díez Martínez, *"New insights into tobacco mosaic virus: stability, disassembly and uncoating"*

Antonio Miguel Bosch Fernandez, *"Adsorption-driven deformation and footprints of the RBD proteins in SARS-CoV-2 variants on biological and inanimate surface"*

Pablo Tuero, *"Unraveling different contributions to spin orbit coupling in superconductor/ferromagnet hybrids"*

The first activity of the afternoon, moderated by Rafael Sánchez, consisted of a new selection of communications presented by young researchers in the following order:

Pablo Vaquer de Nieves, *"Transport of exciton-polaritons on halide perovskites"*

Jose Antonio Moreno, *"The feedback driven atomic scale Josephson microscope"*

Jesús Díaz-Sánchez, "Nanoscale nucleation and growth of sodium and lithium anodes in zero-excess solid-state batteries"

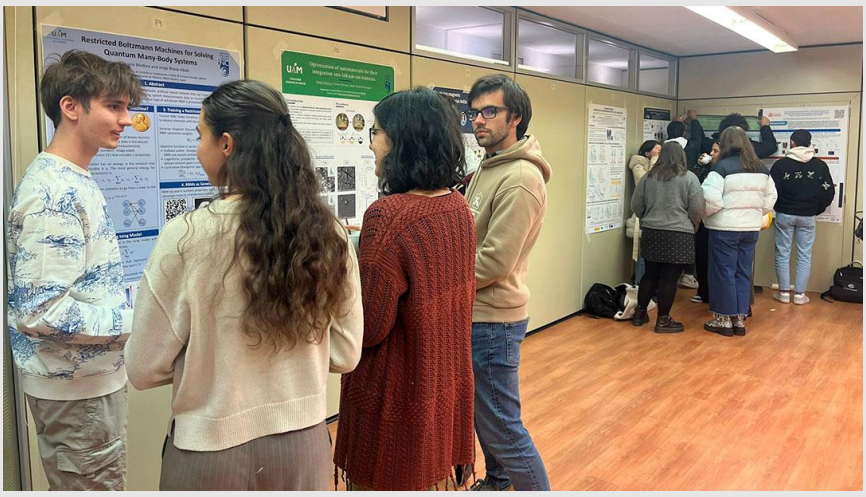
During the afternoon coffee break, the second poster session was held, in which the young researchers, including the awarded Physics students, participated.

Finally, in the last session, moderated by Carlos Antón, three talks were presented by different students in the following order:

Liyan Ming, *"Luminescence-enabled three-dimensional temperature mapping"*

José Balduque Picazo, *"Scattering theory of thermal and bipolar thermoelectric diodes"*

Jorge Vega Martín, *"Proton Transport through Peptide Nanotubes: Insights from Computer Simulations"*

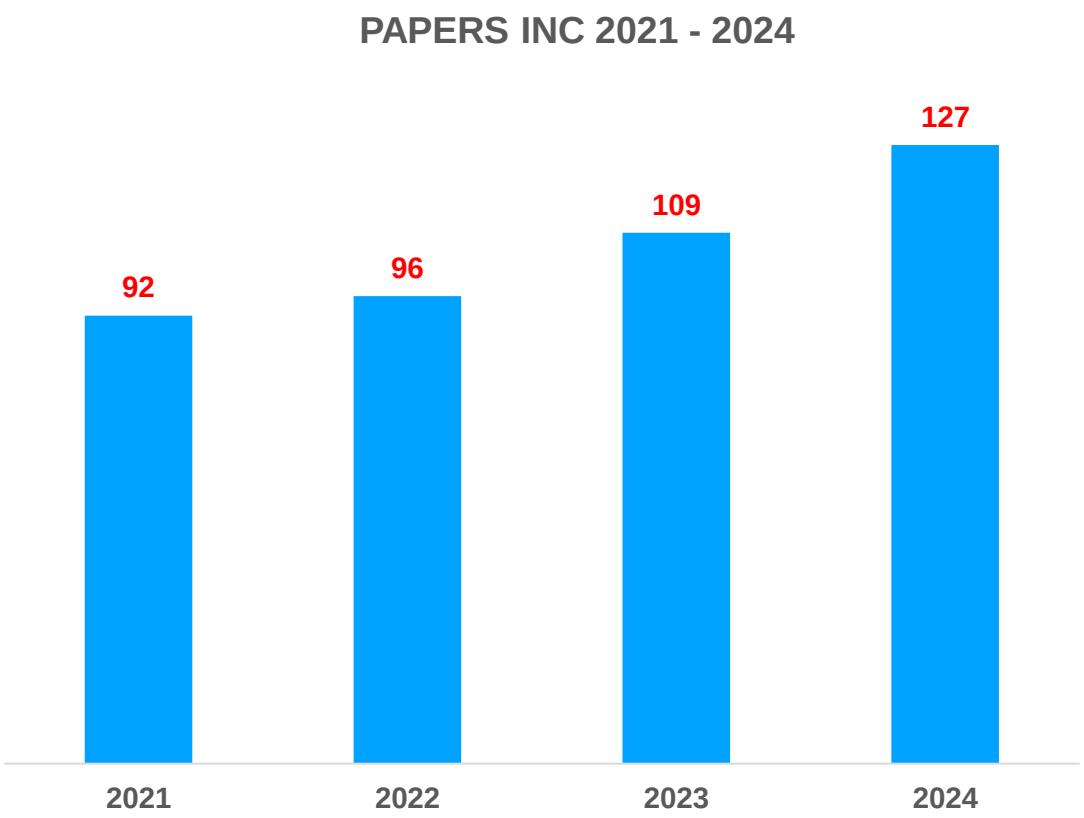


Picture of the poster session.

Science at INC

The articles published in 2024 by the members of the INC which included the affiliation of INC (**Instituto Nicolás Cabrera (INC), Universidad Autónoma de Madrid**) in the publications reached a total number of 128, which is higher than the numbers published in 2022 (96) and in 2023 (109). The complete list of all the publications can be found in the INC website, at the following link.

Although it is indeed not the only indicator of high quality, it is to be emphasized that 24 out of those 128 articles in 2024 (i.e., **almost 20%**) were published in scientific journal with an **Impact Factor above 10.0**! Besides, we can note other 31 articles (almost ¼ of our publications) published in several journals of the prestigious Physical Review family.



Permanent Members

	PROFESSOR-RESEARCHER	DEPARTMENT
1	Aliev Kazanski, Farkhad	FÍSICA DE LA MATERIA CONDENSADA
2	Álvarez Alonso, Jesús	FÍSICA DE LA MATERIA CONDENSADA
3	Álvarez Carrera, José Vicente	FÍSICA DE LA MATERIA CONDENSADA
4	Arranz de Gustín, Antonio	FÍSICA APLICADA
5	Bausá López, Luisa	FÍSICA DE MATERIALES
6	Bravo Abad, Jorge	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
7	Bravo Roldán, David	FÍSICA DE MATERIALES
8	Brihuega Alvarez, Ivan	FÍSICA DE LA MATERIA CONDENSADA
9	Burset Atienza, Pablo	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
10	Camarero de Diego, Julio	FÍSICA DE LA MATERIA CONDENSADA
11	Cantelar Alcaide, Eugenio	FÍSICA DE MATERIALES
12	Carrascosa Rico, Mercedes	FÍSICA DE MATERIALES
13	Cervera Goy, Manuel	FÍSICA APLICADA
14	Cinacchi, Giorgio	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
15	Cuevas Rodríguez, Juan Carlos	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
16	De Miguel Llorente, Juan José	FÍSICA DE LA MATERIA CONDENSADA
17	De Pablo Gomez, Pedro José	FÍSICA DE LA MATERIA CONDENSADA
18	Del Valle Reboul, Elena	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
19	Delgado Buscalioni, Rafael	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
20	Díaz Palacios, Raquel	FÍSICA APLICADA
21	Farias Tejerina, Daniel	FÍSICA DE LA MATERIA CONDENSADA
22	Feist, Johannes	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
23	Fernández Dominguez, Antonio Isaac	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
24	García Cabañes, Angel	FÍSICA DE MATERIALES
25	García Carretero, Basilio Javier	FÍSICA APLICADA
26	García Michel, Enrique	FÍSICA DE LA MATERIA CONDENSADA
27	García Solé, José	FÍSICA DE MATERIALES
28	García Vidal, Francisco José	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
29	Garrido Salas, Javier	TECNOLOGÍA ELECTRÓNICA Y DE LAS COMUNICACIONES
30	Gómez Herrero, Julio	FÍSICA DE LA MATERIA CONDENSADA
31	Gómez Santos, Guillermo	FÍSICA DE LA MATERIA CONDENSADA
32	Gómez-Navarro Gonzalez, Cristina	FÍSICA DE LA MATERIA CONDENSADA
33	Gordillo García, Nuria	FÍSICA APLICADA
34	Guantes Navacerrada, Raúl	FÍSICA DE LA MATERIA CONDENSADA
35	Guillamón Gómez, Isabel	FÍSICA DE LA MATERIA CONDENSADA
36	Gutiérrez Delgado, Alejandro	FÍSICA APLICADA
37	Haro González, Patricia	FÍSICA DE MATERIALES
38	Hernández Muñoz, María Jesús	FÍSICA APLICADA
39	Jaque García, Daniel	FÍSICA DE MATERIALES
40	Jiménez Ferrer, Isabel	FÍSICA DE MATERIALES

41	Lazic, Snezana	FÍSICA DE MATERIALES
42	Leardini, Fabrice	FÍSICA DE MATERIALES
43	Lee, Eduardo Jian Hua	FÍSICA DE LA MATERIA CONDENSADA
44	Levy Yeyati Mizrahi, Alfredo	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
45	Lifante Pedrola, Ginés	FÍSICA DE MATERIALES
46	López Vázquez de Parga, Amadeo	FÍSICA DE LA MATERIA CONDENSADA
47	Manso Silván, Miguel	FÍSICA APLICADA
48	Marchetti, Francesca	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
49	Marqués Ponce, Manuel Ignacio	FÍSICA DE MATERIALES
50	Martín Fernández, María Dolores	FÍSICA DE MATERIALES
51	Martín Palma, Raúl José	FÍSICA APLICADA
52	Martín Rodríguez, Emma	FÍSICA APLICADA
53	Merino Álvarez, José Manuel	FÍSICA APLICADA
54	Merino Troncoso, Jaime	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
55	Miguez Gómez, David	FÍSICA DE LA MATERIA CONDENSADA
56	Molina de Pablo, Pablo	FÍSICA DE MATERIALES
57	Morant Zacares, Carmen	FÍSICA APLICADA
58	Ortega Mateo, José	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
59	Palacios Burgos, Juan José	FÍSICA DE LA MATERIA CONDENSADA
60	Pampillón Arce, María Ángela	FÍSICA APLICADA
61	Pau Vizcaíno, José Luis	FÍSICA APLICADA
62	Pérez Casero, Rafael	FÍSICA APLICADA
63	Pérez Pérez, Rubén	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
64	Plaza Canga-Argüelles, José Luis	FÍSICA DE MATERIALES
65	Polop Jordá, Celia	FÍSICA DE LA MATERIA CONDENSADA
66	Prieto Recio, Mª del Pilar	FÍSICA APLICADA
67	Prins, Ferry	FÍSICA DE LA MATERIA CONDENSADA
68	Quintanilla Morales, Marta	FÍSICA DE MATERIALES
69	Ramirez Herrero, María de la O	FÍSICA DE MATERIALES
70	Ramos Ruiz, Miguel Angel	FÍSICA DE LA MATERIA CONDENSADA
71	Redondo Cubero, Andrés	FÍSICA APLICADA
72	Rodrigo Rodríguez, José Gabriel	FÍSICA DE LA MATERIA CONDENSADA
73	Rodriguez Arriaga, Laura	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
74	Rubio Bollinger, Gabino	FÍSICA DE LA MATERIA CONDENSADA
75	Sánchez Rodrigo, Rafael	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
76	Segovia Cabrero, Pilar	FÍSICA DE LA MATERIA CONDENSADA
77	Seijo Loché, Luis Ignacio	QUÍMICA
78	Soler Torroja, José Mª	FÍSICA DE LA MATERIA CONDENSADA
79	Suderow Rodriguez, Hermann	FÍSICA DE LA MATERIA CONDENSADA
80	Tarazona Lafarga, Pedro	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
81	Torres Costa, Vicente	FÍSICA APLICADA
82	Van der Meulen, Herko	FÍSICA DE MATERIALES
83	Velasco Caravaca, Enrique	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
84	Viña Liste, Luis	FÍSICA DE MATERIALES
85	Zotti, Linda Angela	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA

25% of the INC's permanent members are women.

Non Permanent Members

PhD

	PROFESSOR-RESEARCHER	DEPARTMENT
1	Agulló López, Fernando	FÍSICA DE MATERIALES
2	Anton Solanas, Carlos	FÍSICA DE MATERIALES
3	Aragones Gómez, Juan L.	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
4	Ares García, Pablo	FÍSICA DE LA MATERIA CONDENSADA
5	Arroyo Huidobro, Paloma	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
6	Assenza, Salvatore	FÍSICA TEÓRICA DE LA MATERIA CONDENSADA
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