



## Who we are

The Institute of Mathematical Sciences (ICMAT) is a joint research center of the Consejo Superior de Investigaciones Científicas (CSIC) and three Madrid universities: the Universidad Autónoma de Madrid (UAM), the Universidad Carlos III de Madrid (UC3M) and the Universidad Complutense de Madrid (UCM).

The ICMAT is a leading international center known for its excellence in research, its internationally recognized pre- and postdoctoral training courses, its promotion of interdisciplinary collaboration, the organization of events of worldwide impact and its commitment to outreach activities.

The ICMAT headquarters is housed in a building equipped with outstanding facilities for mathematical research. It is placed on the UAM Cantoblanco campus in Madrid (Spain), within the framework of the UAM+CSIC International Campus of Excellence.



In 2011 the ICMAT was awarded with the Severo Ochoa program, which distinguishes research centers of excellence in Spain.

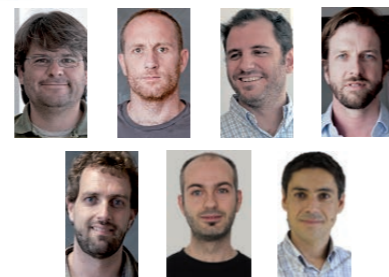
## Main research lines

- Moduli Spaces and Mathematical Physics
- Singularity Theory
- Symplectic Geometry, Geometric Theory of Partial Differential Equations and Dynamical Systems
- Geometric Mechanics and Control Theory
- Harmonic Analysis
- Partial Differential Equations
- Dynamical Systems and Control Theory
- Number Theory
- Group Theory
- Statistics and Operations Research

## ERC Independent Researcher Grants



The ERC Grants award high profile projects in Europe. The number of ERC Grants obtained by ICMAT researches in Mathematics is the highest in Europe.



Diego Córdoba (2007), F. J. Fernández de Bobadilla (2007 and 2014), Javier Parcet (2010), Keith Rogers (2011), Daniel Faraco (2012), Daniel Peralta (2014), José M. Martell (2014)

## Prizes

ICMAT researchers enjoy wide international recognition as attested by the projects and prizes awarded to the center.

- Endowed Permanent Chair in Adversarial Risk Analysis supported by the AXA Research Fund: David Ríos (2014-2022).
- Prince of Girona Research Prize 2014: Alberto Enciso.
- Excellence Prize 2014 of the Social Council of the Carlos III University of Madrid to Young Researchers: Eduardo Colorado.
- National Research Prize "Julio Rey Pastor" 2011: Antonio Córdoba.
- Madrid Community Prize "Miguel Catalán" 2011: Diego Córdoba.
- RSEF-BBVA Prize for Novel Researchers in Theoretical Physics (2011): Carlos Escudero.
- "Jose Luis Rubio de Francia" Prize awarded by the RSME: Javier Parcet (2006), Francisco Gancedo (2008), Álvaro Pelayo (2009), Alberto Enciso (2011), María Pe (2012), Ángel Castro (2014).
- SEMA Prize: Marco Fontelos (2004), Diego Córdoba (2005), Jorge Cortés (2006), Alberto Enciso (2013).

## Scientific Activities

The ICMAT provides many scientific programs for the mathematical community both nationally and abroad, among which are thematic events, training activities, research networks and collaborations between leading international centers.

- Thematic Trimesters. Intensive research sessions consisting of workshops, schools and seminars, with research groups in pairs.
- Workshops and Schools to strengthen emerging lines of research.
- Research initiation program, ICMAT-INTRO.
- Young researcher appointment programs, ICMAT-PRE, ICMAT-POSTDOC.
- Interaction with industry and multidisciplinary research program, ICMAT-TRANSFER.
- Visitor program, ICMAT-VISITORS.

Since September 2010 the ICMAT has organized 40 workshops, 16 schools, three thematic trimesters, 21 advanced courses, 33 colloquia jointly with the Universidad Autónoma de Madrid, and more than 400 seminars. Around 4000 researchers have visited the ICMAT.

Since 2010, the center has welcomed more than 600 visitors from many different countries for short / mid / long term stay.

## ICMAT Laboratories

The ICMAT LABORATORIES consist of collaboration agreements with prestigious international mathematicians with the aim of creating leading groups in their respective fields at the ICMAT. The following laboratories are currently up and running:

- Charles L. Fefferman Laboratory (Princeton University, USA)
- Marius Junge Laboratory (University of Illinois, USA)
- Nigel Hitchin Laboratory (Oxford University, UK)
- Viktor Ginzburg Laboratory (University of California, Santa Cruz, USA)
- Stephen Wiggins Laboratory (Bristol University, UK)



## Outreach

The ICMAT has a **Communication Unit** that organizes and coordinates the **Unit of Mathematical Culture** and the **Press Office**.

Regular in-house outreach activities:

- Mathematics in the Residencia. A series of talks given by leading disseminators of mathematics from all over the world.
- Initiative for Mathematics and the Arts. A platform created for the purpose of promoting activities related with mathematics and the arts.
- Science in Action. Scientific outreach competition and fair for primary and highschool students.
- 4º ESO+Empresa. Stays at the Institute for groups of 4th-year secondary school pupils in which they enter into direct contact with research activity.
- Science Week.
- Researchers' Night.



## Outreach Publications

ICMAT Newsletter. Quarterly publication containing items of interest concerning current mathematical research and research activity conducted at the ICMAT, as well as articles about and interviews with leading figures in the scientific community.

Blog: Matemáticas y sus Fronteras. The foremost mathematical blogbook in the Madrid+d collection in which current developments in national and international research are presented by ICMAT members and other collaborators.

Many ICMAT researchers have published works as part of the "¿Qué sabemos de...?" ("What do we know about...?") collection, which is an outreach initiative by the CSIC and Libros de la Catarata.

## Facilities



The building houses six conference halls (with a capacity for 30, 40, 50, 80, 80 and 140 people) and an auditorium holding 270 people. These spaces are all equipped with whiteboards, screens, projectors, beamer, internet access and multimedia equipment for recording events and talks.

In addition, the ICMAT has more than one hundred fully furnished offices with a capacity for 200 people. Many of these office spaces are reserved for visitors, which enables the ICMAT to welcome some 50 to 60 guests at any one time. There is also a large common room with 24 desks and computers for students.

### Jorge Juan Library



The library, within its 1,100 square meters, house the Instituto de Matemáticas Jorge Juan's historical archives and all the material bought by the CSIC after the dissolution of the old mathematical research institute. The ICMAT library has electronic access to almost all the mathematical journals published, as well as a project for Mathematical Documentation.

## Services

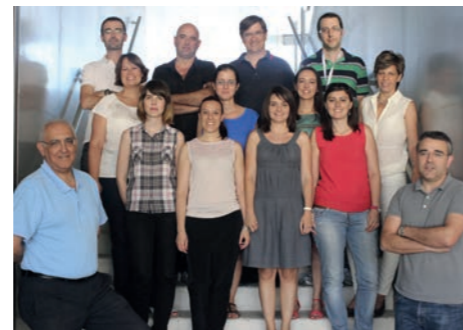
ICMAT Transfer Office. Promotes the transfer of mathematical research to the business sector by identifying transferable results and the needs of the technological and business sectors as well as providing assessment on agreements.

ICMAT Outreach and Communication Office. Provides support and coordination for communication tasks carried out by researchers, such as the drawing up of brochures and posters, the diffusion of research activity by means of press releases and other institutional channels, as well as participation in outreach activities.

Severo Ochoa Office. Responsible for the management of the Severo Ochoa program as well as providing guidance on applications, negotiation and justification for national projects.

ICMAT Administration Office. Responsible for the administrative organization of scientific activities carried out at the ICMAT, mediation with financial and public institutions, and hiring and appointment processes.

IT Services. Provides technical support to both ICMAT researchers and management personnel by means of tasks such as the development and maintenance of institutional websites, the administration of calculating machines, ICMAT equipment and IT assistance.



## Contact

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**ICMAT**  
INSTITUTO DE CIENCIAS MATEMÁTICAS

Excellence in  
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