



International Congress on Industrial and Applied Mathematics in Valencia

The ICIAM aims to bridge the gap between mathematics and society

- **Thursday afternoon hosted a free public talk at the Palau de les Arts, in Valencia, on maths applied to cancer research by the Spanish mathematician Víctor Pérez-García.**
- **Tomás Chacón, president of the Organizing Committee: "In he ICIAM there is an update of all the advances in applied mathematics to solve problems in people's lives and improve processes in companies".**
- **Rosa Donat, president of the local committee: "Mathematics is much more than a game and we need to disseminate them."**
- **Luis Vega, coordinator of accreditation of excellence Severo Ochoa of the BCAM: "We must build a bridge to advance from both sides in the transmission of the importance of mathematics".**

Valencia, July 18th of 2019. Mathematics has historically dragged the black label of being an *impossible* subject to understand, and followingly extended the ignorance of what they are for and why they are so important for society. To mitigate this gap, the International Congress of Industrial and Applied Mathematics (ICIAM), held this week in Valencia, has placed special emphasis on trying to bring the value of mathematics to society. Examples of this are the two major outreach activities that will take place today in the city.

Víctor M. Pérez-García, director of the Laboratory of Mathematical Oncology (Mathematical Oncology Laboratory or MÔLAB) of the Institute of Mathematics Applied to Science and Engineering of the University of Castilla-La Mancha, have explain his research in a conference

open to the public (for free) at 7:45 p.m. at the Palau de les Arts (City of Arts and Sciences) of Valencia.

"We work combining mathematics and medicine, and with mathematical tools we try to solve useful questions for medicine such as: How to define data which informs us of the status and prognosis of a cancer and how to personalize the therapies for each patient while answering the challenges with the available data and with mathematical modeling," says Pérez-García.

In addition, at 22:00 In the Hemisfèric took place the opera Archimedes, created by the American composer James Dashow, based on the life of the famous mathematician, physicist and Hellenic engineer.

The vital role of mathematical transfer

"In the ICIAM there is an exchange of mathematical knowledge, an update of all the advances in applied mathematics to solve problems in people's lives and improvement processes in companies", explains Tomás Chacón, president of the Organizing Committee of the congress. Society must know these improvements to understand why it is important to investigate in mathematics. "Investing in research is a long-term social investment. The industry, the companies and society itself must be aware of the relevance of mathematics so that it can be considered a resource at their disposal".

For Rosa Donat, president of the Local Organizing Committee of ICIAM2019 and president of the Spanish Society of Applied Mathematics (SEMA), it is very important to connect with society. That is why he has worked to organize outreach activities, with the background of the congress, over the last year. "We contacted research groups from different parts of Spain, such as Malaga, Bilbao and Galicia, and we collaborated with The Spanish Association of Secondary Teachers to give talks in schools. "We had a surprising welcome", he explains. And he adds that "mathematics is much more than a game and we need to disseminate them."

Tomás Chacón is also coordinator of the Strategic Mathematics Network (REM), which promotes the dissemination and transfer of mathematical technology, speaks of the agents who can and should make this important work for society: "The mathematical network-industry (math-in), which is formed by more than 30 research groups is focused on the transfer from centers of excellence such as the Institute of Mathematical Sciences [ICMAT], the Basque Center for Applied Mathematics [BCAM] and the Barcelona Graduate School of Mathematics [BGSMath], the institutes of the university network of mathematics institutes (RedIUM), the faculties of mathematics... Society and the companies should know that when they have a problem, they can find us".

The coordinator of accreditation of excellence Severo Ochoa of the BCAM, Luis Vega, recalls the motto of his institution, 'Mathematics at the service of society', and emphasizes that it is necessary "to build a bridge to advance from both sides in the transmission of the importance of mathematics." Luckily, he points out, "we mathematicians have already left the 'ivory tower' in which we have sometimes placed ourselves, and we are making an effort to reach society, but we also need society to open its doors to us and value us. "

The **International Congress of Industrial and Applied Mathematics 2019** is the largest conference on this topic in the world; it takes place every four years and this is the first time the event is being held in Spain. Over the coming days, more than 4,000 mathematicians from all over the world are discussing mathematics of the future. This celebration is possible thanks to the sponsorship of many institutions, amongst them The **Ministry of Science, Innovation and Universities**; the **Foundation of the Valencian Community for the Promotion of Higher Studies** (FFES); the **Diputació de València**; the **City Council of Valencia**; the **University of Valencia**; and **Banco Santander**.

Further information:

<https://iciam2019.org/>

Press contact:

Divulga

Ignacio Fernández Bayo

ibayo@divulga.es

610 908 224

Laura Torrado

lauratorrado@telefonica.net

607 283 282

Patricia Ruiz Guevara

patricia.ruizguevara3@gmail.com

608 763 628