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The 2019 International Day of Light in Spain



A series of activities carried out in 2019 on the occasion of the International Day of Light (DIL), this year organized by the Universidade de Santiago de Compostela (USC), focus on the interest in light and its properties applicable to various scientific and cultural fields that contribute to the improvement of the citizen life. The annual celebration of this event promotes research in this area and highlights the need to keep it alive as well as the dissemination of the knowledge gained and the participation of the students and the society.

Speakers and organizers of the Central Act of the International Day of Light in Spain 2019, Santiago de Compostela.

The 2015 was declared the International Year of Light and Light based Technologies. After the success of the International Year, it was clear that the proclamation of an International Day of Light would provide an enduring follow-up to the International Year of Light in raising the profile of science and technology, stimulating education, and improving the quality of life worldwide. A resolution supporting the International Day of Light was adopted by the UNESCO Executive Board at its 200th session which took place at the UNESCO HQ in Paris, France, on 19 September 2016. The UNESCO Executive Board resolution was endorsed by the UNESCO

General Conference at its 39th session on 7 November 2017 and 16th of May was declared the International Day of Light, starting its celebration in 2018.

In this paper¹ we reported on the main activities related to the International Day of Light (IDL) in Spain throughout 2019. After the success in 2018, the Spanish Committee for the IDL continued the promotion and dissemination of related activities in optics, photonics and the world of light science. The specific website² and the related social media are active and recall all the information of events in Spain. To accomplish these goals, the Spanish Committee for the IDL counts with the support of a good number of national and international sponsors and collaborators.

According to the goals of the IDL proclamation, these activities are intended to enable global appreciation of the central role that light and light-based technologies play in the lives of the citizens of the world in areas of science, medicine, communications, technology, culture, education, sustainable development and embedded technologies in our daily life. Also, they were intended to emphasize the importance of basic research in the fundamental science of light, the need for investment in light-based technology to develop new applications and improvements, the necessity to promote careers in science and engineering in these fields and to attract students for science and engineering degrees by promoting activities for primary and secondary schools students.

The flagship IDL event in Spain was organized in 2019 at the Universidade de Santiago de Compostela (USC). It took place in May 15th, at the historical building Hostal de los Reyes Católicos. The event included four different conferences by four Spanish experts in optics and photonics, as well as an exhibition and activities for students. These conferences, as well as the opening ceremony, were recorded by the USC TV and they are now freely available through the Spanish IDL website. The audience was about 250 participants, mainly secondary school students interested in STEM (Science, Technology, Engineering and Mathematics). Students of the Physics degree of USC participated as monitors for the experiments shown to younger students.

We select here some other relevant activities from a large number of different events that took place in Spain and are included in the official website:

-Reproduction of the Fizeau experiment to measure the speed of light at Santander in the 200 anniversary of the birth of the French scientist Hippolyte Fizeau.

-The 2019 COSCE Workshop of Societies and the UNED TV and radio emissions. COSCE (Confederation of Scientific Societies of Spain) devoted its 2019 annual workshop to the Day of Light, in collaboration with FACME, the Federation of Spanish Medical Scientific Societies. This event covered different aspects of the interaction of the light with the different sciences. UNED, the Spanish National Distance Education University (Open University), recorded a report of this event and was broadcasted in "La 2 de TVE". This video is based on interviews to different participants and includes, among others, the speakers at the workshop, as well as the President of the Spanish Committee of the International Day of Light.

-Exhibition: "GRANAGlyphs: A stereoscopic vision of Granada" at the Science Museum (Parque

de las Ciencias. Granada) organized by the Optics Department of the University of Granada and the Museum.

-‘Misión ALBA’ project for primary school students. Misión ALBA is an educational project, launched for the first time during the academic year 2018-2019, by the ALBA Synchrotron. The first edition finished last May 2019 and counted with the participation of more than 7,000 students coming from 170 schools all around Spain. It hosts four virtual laboratories under the motto of “making visible the invisible”, one of the labs is specially focused on light and its properties.

-ORIGAMI Project at the Archaeological Site of the Dolmens of the Antequera city. This project was carried out in the Archaeological Site of the Dolmens of Antequera (Málaga), a site declared by UNESCO World Heritage Site since 2016. Light was used to show the trajectories that mark the exceptionality in the singular orientation of the Dolmens of Antequera, as were imagined by our ancestors about 6,000 years ago.

-The PHOTON awards of the Institute of Optics, CSIC. This initiative, in collaboration with SEDOPTICA and secpho, aims to recognize the work of communication, dissemination and approach to public opinion of the scientific, technological and social impact of research in optics and photonics and to promote and encourage the teaching of science and research and, in particular, optics and photonics to elementary and high school students.

-UAB participated in the celebration of the IDL in 2018 and 2019 by the Faculties of Sciences and Biosciences. In 2019 there was a talk on “Light and Color” by Prof. Rosa Ortúñoz and a contest of Micro writings (Microrrelatos) about light for professors, students and staff members of the UAB.

The flagship 2020 Central IDL Event in Spain will be held in the city of Terrassa, organized by the Faculty of Optics and Optometry of Terrassa (FOOT). The organizers of this event want to give special emphasis to Light, Vision and Visual Health, taking advantage of the fact that the year 2020 coincides with the nomenclature 20/20, which is commonly used to designate normal visual acuity in common eye examinations.

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María J. Yzuel¹, Ignacio Moreno², María L. Calvo³,

1. Departament de Física, Universitat Autònoma de Barcelona, Spain

2. Departamento de Ciencia de Materiales, Óptica y Tecnología Electrónica, Universidad Miguel Hernández de Elche, 03202 Elche, Spain

3. Departamento de Óptica, Universidad Complutense de Madrid, Spain

Note on the authors: María J. Yzuel is President of the Spanish Committee for the International Day of Light, and Ignacio Moreno and María L. Calvo are Vice Presidents of this Committee.

maria.yzuel@uab.cat

References

¹ M. J. Yzuel, I. Moreno, M. L. Calvo, "The 2019 International Day of Light in Spain"; Opt. Pura Apl. **52** (4) xiii-xx (2019)

² Web oficial del Día Internacional de la Luz en España: <http://www.diadelaluz.es>

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