

Viernes 21

09:30 h | Wider, faster, deeper: new perspectives on imaging at depth

[Kishan Dholakia](#)

11:00 h | Imaging the ssue structure: advances on Optical Coherence Tomography

[Robert Huber](#)

12:30 h | Closing Remarks

## Foreview

Light plays a vital role in our daily lives and is being an imperative cross-cutting discipline of science in the 21<sup>st</sup> century. Today, it is widely accepted that the present century will depend as much on Photonics as the 20<sup>th</sup> century depended on electronics.

ISLIST has been conceived as a great opportunity to review, actualize and improve the knowledge of *scientists, professionals and technicians*; to contribute to the education and to enhance the motivation of *PhD students*; to offer an ideal frame for *networking* and also to contribute to the education of *thecitizens*. It is also a great opportunity to ensure that *policymakers, entrepreneurs*, and other key “actors” will be aware of the problem-solving potential of Photonics.

This international school is envisioned to be a worldwide top International forum (every fourth week of June) on Light Sciences and Technologies in Santander, Spain. In this 2019 edition the IV School is focused on *Light on Sources, Health and Medicine* as main core that will be developed by sixteen (16) *highly renowned* professors and researchers from the most prestigious worldwide institutions and, as well, presidents of the most reputed international Photonic Scientific Organizations.

The Nobel Laureate Donna Strickland will present a Keynote, participate in a Round Table, will be distinguished with a **Doctorate Honoris Cause** degree by UIMP and also will receive also the *Julio Peláez Prize*.

In addition, the attendees will have the opportunity to practice networking and interchange Knowledge and experiences during the *City Council of Santander Reception*.



[www.uimp.es](http://www.uimp.es)

## INFORMACIÓN GENERAL

Hasta el 14 de junio de 2019

### Santander

Campus de Las Llamas  
Avda. de los Castros, 42  
39005 Santander  
Tel. 942 29 87 00 / 942 29 87 10

### Madrid

C/ Isaac Peral, 23  
28040 Madrid  
Tel. 91 592 06 31 / 91 592 06 33

A partir del 17 de junio de 2019

### Santander

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39005 Santander  
Tel. 942 29 88 00 / 942 29 88 10

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Código 64AN / Tarifa: C / ECTS: 1

## Patrocinio:



## Colaboración:



**UIMP**  
Universidad Internacional  
Menéndez Pelayo

SANTANDER 2019

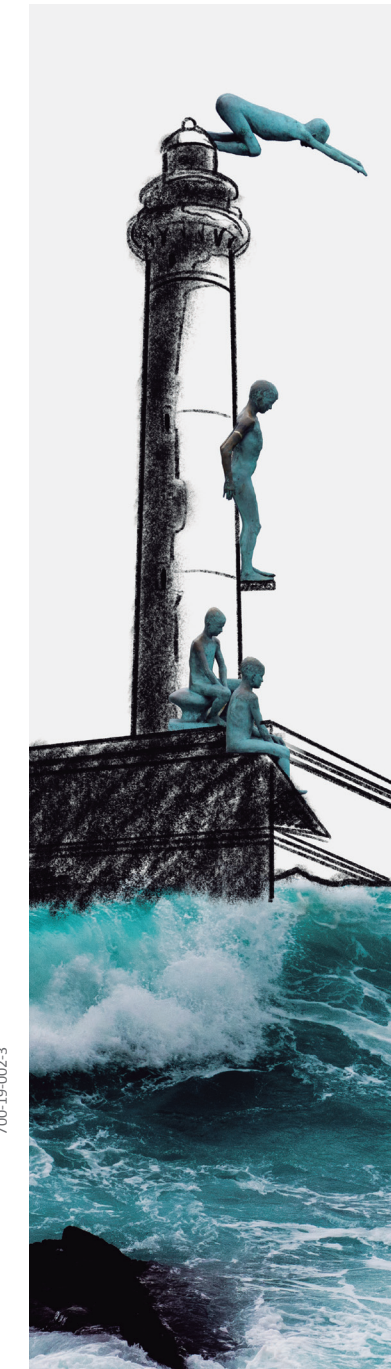
IV INTERNATIONAL  
SCHOOL ON LIGHT  
SCIENCES AND  
TECHNOLOGIES

Core: Light in  
Sources, Health  
and Medicine

José Miguel López-Higuera

Del 17 al 21 de junio

[www.uimp.es](http://www.uimp.es)



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Core: Light in Sources, Health and Medicine

Dirección  
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of the Photonic Engineering Group  
University of Cantabria, CIBER-BBN and IDIVAL, Spain

Secretaría  
[Adolfo Cobo García](#)  
Professor in Electronic Technology of University of Cantabria,  
CIBER-BBN and IDIVAL, Spain

Del 17 al 21 de junio

Lunes 17

10:15 h | Opening Remarks

11:00 h | Toward a Thinking Microscope: Deep  
Learning-enabled Computational Microscopy and Sensing  
[Aydogan Ozcan](#)  
Director Bio&Nano-Photonics Laboratory, Chancellor's Professor,  
of California, Los Angeles, USA

12:10 h | Light in the Diagnostics and Therapy  
of the Vision human system  
[Susana Marcos](#)  
Director of Visual Optics and Biophotonics Lab, Instituto de Óptica,  
Professor of Research, CSIC, Madrid, Spain

15:30 h | Light on Health and Medicine  
[José Miguel López-Higuera](#)

16:40 h | Light, you need it!!”. Semiconductor LED  
and Intelligent Lighting sources: Recent advances  
and their impact on mood and health  
[Jan Willem Denneman](#)  
GoodLight Group / Honorary Ambassador of the Global  
Lighting Association

Martes 18

09:30 h | From nonlinear Optics to High -  
Intensity Laser Physics  
[Donna Strickland](#)  
Nobel Laureate in Physics 2018  
Department of Physics & Astronomy  
University of Waterloo, Canada

11:00 h | Fiber based light Sources: from the UV  
to the mid infrared  
[Roy Taylor](#)  
Imperial College of London, UK

12:10 h | Petawatt lasers and their potential applications  
in Biomedicine  
[Luis Roso](#)  
Spanish Center for Pulsed Lasers, CLPU, Salamanca, Spain

15:30 h | Round Table I:  
Optical Source challenges  
[Donna Strickland](#)  
[Roy Taylor](#)  
[Pere Pérez Millán](#)  
FYLA LASER SL

Moderación  
[José Miguel López-Higuera](#)

17:15 h | Julio Pelaez Prize ceremony  
[Donna Strickland](#)

Miércoles 19

09:30 h | Fighting antibiotic resistance and food  
Safety using light based techniques  
[Sune Svanberg](#)  
Director, Lund Laser Center, Atomic Physics  
Division, Lund University, Sweden

11:00 h | The healing power of photobiomodulation  
or lowlevel light therapy (LLLT)  
[Michael Hamblin](#)  
Principal Investigador at Wellman Center for Photomedicine and  
Harvard Medical School, Boston, USA

12:10 h | Early tumor detection using Light and  
its fighting using Photodynamic Therapy (PDT):  
What next for extensive use in clinic?  
[Katarina Svanberg](#)  
Director, Medical Laser Centre  
Lund University, Sweden

15:30 h | Towards quantfication of pain using Light  
based approaches  
Mark Hutchinson  
BioPhotonics The University of Adelaide, Australia

16:40 h | Nano/micro/Biosensors using Light sciences  
and technologies  
[Laura Lechuga](#)  
Nanobiosensors and Bioanalytical  
Applications Group, ICN2, CSIC, CIBERBBN and BIST, Barcelona,  
Spain

Jueves 20

09:30 h | Optical Manipulation on Medicine Tasks  
[Kishan Dholakia](#)  
Director SUPA  
School of Physics & Astronomy  
Universoty of St. Andrews, Scotland, UK

11:00 h | Flow Cytometry using Optical fibre  
technologies  
[Walter Margulis](#)  
Research Institutes of Sweden RISE Acreo

12:00 h | Doctor Honoris Causa Ceremony  
[Donna Strickland](#)

15:30 h | Round Table II:  
Light in Health & Medicine challenges  
[Katarina Svanberg](#)  
[Michael Hamblin](#)  
[Mark Hutchinson](#)  
[Robert Huber](#)  
University of Lübeck, Germany

Moderación  
[José Miguel López-Higuera](#)