

Friday 21

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

Kishan Dholakia

11:00 h | Imaging the tissue 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 21st century. Today, it is widely accepted that the present century will depend as much on Photonics as the 20th 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 *the citizens*. 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 Causa** 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



INFORMACIÓN GENERAL

Hasta el 14 de junio de 2019

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A partir del 17 de junio de 2019

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Patrocinio:

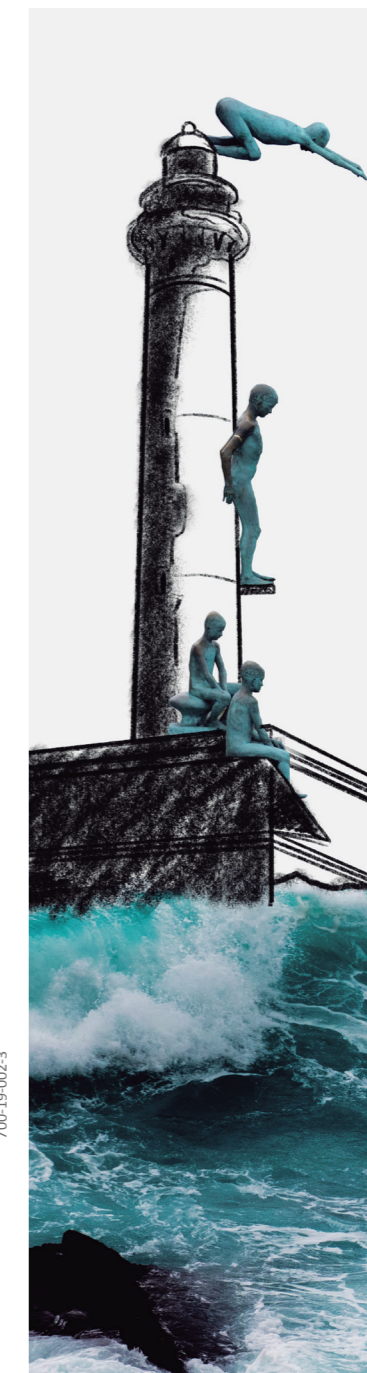


Colaboración:



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

700-19-002-3

SANTANDER, 2019 Programa académico

IV INTERNATIONAL SCHOOL ON LIGHT SCIENCES AND TECHNOLOGIES

Core: Light in Sources, Health and Medicine

Director

[José Miguel López-Higuera](#)

Professor in Electronics and Photonics and Head of the Photonic Engineering Group
University of Cantabria, CIBER-BBN and IDIVAL, Spain

Secretary

[Adolfo Cobo García](#)

Professor in Electronic Technology of University of Cantabria, CIBER-BBN and IDIVAL, Spain

17-21 June

Monday 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

Tuesday 18

09:30 h | From nonlinear Optics to High - Intensity Laser Physics

[Donna Strickland](#)

Nobel Laureate in Physics 2018

Department of Physics & Astronomic
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

Moderation

[José Miguel López-Higuera](#)

17:15 h | Julio Pelaez Prize ceremony

[Donna Strickland](#)

Wednesday 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 quantification 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

Thursday 20

09:30 h | Optical Manipulation for biomedicine

[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

Moderation

[José Miguel López-Higuera](#)