



International PhD Academy Global Challenges Initiatives

Light: Its Nature and Its Use

**Venice International University
May 3-7, 2021**

Faculty

- Laurent Servant, University of Bordeaux, Scientific coordinator
- Lionel Canioni, University of Bordeaux, Scientific coordinator
- Brahim Lounis, University of Bordeaux, Scientific coordinator
- Martin Hachet, University of Bordeaux/INRIA
- Edouard Gerbaud, University of Bordeaux/CHU
- Neil Maiden, CITY University of London
- Stefan Maier, Ludwig Maximilians Universität München
- François Légaré, Institut National de la Recherche Scientifique (INRS)
- Jean-Claude Kieffer, Institut National de la Recherche Scientifique (INRS)
- Paolo Proposito, Tor Vergata University of Rome
- Maarten Roeffaers, KU Leuven
- Alessandro Farini, National Research Council of Italy (CNR)
- Fabio Peron, Iuav University of Venice
- Alessandra Fornetti, VIU - TEN Program on Sustainability
- Ilda Mannino, VIU - TEN Program on Sustainability

Agenda

Sunday, May 2, 2021

Day 1 – Arrival

Monday, May 3, 2021

Day 2 – History of Light | Light imaging | Light for Health

9:00-9:15 *Welcome Coffee and Registration*

9:15-9:30 *Opening and Introduction to the PhD Academy (VIU & Scientific Coordinators)*



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9:30-10:30 **0 - General overview on the History of Light**
Lionel Canioni – University of Bordeaux

10:30-10:45 *Break*

10:45-12:15 **1 - Light Imaging**
Brahim Lounis – University of Bordeaux

12:15-13:30 *Lunch Break*

13:30-14:45 **My Poster in 3 Minutes**
Students

14:45-15:00 *Break*

2 - Light for Health
15:00-16:15 2.1 - Optical Genetics/Phototherapy diagnosis
Lionel Canioni – University of Bordeaux

16:15-17:30 2.2 - Light for atherosclerosis
Edouard Gerbaud – University of Bordeaux/CHU

Tuesday, May 4, 2021

Day 3 – Extreme Light

9:15-10:45 3.1 - Low energy light
Brahim Lounis - University of Bordeaux

10:45-11:00 *Break*

11:00-11:45 3.2 - Mid-Infrared femtosecond laser technologies and their applications in ultrafast science
François Légaré – INRS

11:45-12:30 3.3 - Applications of High peak power lasers: from early detection of breast cancer to global Food Security
Jean Claude Kieffer – INRS

12:30-13:45 *Lunch Break*

13:45-17:30 **Transversal Skills Session**
Design Thinking and Creativity
Neil Maiden – CITY University of London and Ca' Foscari University of Venice



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Wednesday, May 5, 2021

Day 4 – Technology of Light | Light related Technologies

- 9:15-10:45 4.1 - Nanophotonics
Stefan Maier – LMU
- 10:45-11:00 *Break*
- 11:00-12:30 4.2 - Photonics devices
Lionel Canioni – University of Bordeaux
- 12:30-13:45 *Lunch Break*
- 13:45-15:00 **Poster Presentation I**
Students
- 15:00-15:15 *Break*
- 15:15-17:30 **Transversal Skills Session**
How to Develop a Project Proposal for Funding (Daniele Archibugi, CNR - tbc)
- Evening Social Dinner (tbc)*

Thursday, May 6, 2021

Day 5 – Light and (Modern/Future) Society

Part 1: Perception of Light

- 9:15-10:15 5.1.1 - Art and Light
Alessandro Farini – CNR
- 10:15-11:15 5.1.2 - The Role of Light in the Augmented Reality
Martin Hachet – University of Bordeaux
- 11:15-11:30 *Break*
- 11:30-12:30 **Poster Presentation II**
Students
- 12:30-13:45 *Lunch Break*
- Part 2: Light in Urban Planning**
- 13:45-15:15 5.2 - Light and Architecture for a Better Living
Fabio Peron – Iuav University of Venice
- 15:15-15:30 *Break*

15:30-17:30 **Transversal Skills Session**
How to communicate Science to a wide public
Alessandra Fornetti and Ilda Mannino – VIU-TEN Program

Friday, May 7, 2021

Day 6 – Light and (Modern/Future) Society | Wrap-up

Part 3: Security and Environmental Protection | Sustainable Development

9:15-10:45 5.3.1 - Harvesting solar light for Sustainable Development
(i.e. Photocatalysis and Photovoltaics as part of the Sustainable
Development)
Maarten Roeffers – KU Leuven

10:45-11:00 *Break*

11:00-12:30 5.3.2 - Optical sensors based on nanomaterials for Environmental Protection
Paolo Proposito – Tor Vergata University of Rome

12:30-13:45 *Lunch Break*

13:45-16:00 **Final Discussions and Wrap-up**
Everyone

Saturday, May 8, 2021

Day 7 – Departure