International PhD Academy
Global Challenges Initiatives

Light: Its Nature and Its Use

Venice International University
May 2-6, 2022

Faculty
- Laurent Servant, University of Bordeaux, Scientific coordinator
- Lionel Canioni, University of Bordeaux, Scientific coordinator
- Brahim Lounis, University of Bordeaux, Scientific coordinator
- Arnaud Prouzeau, University of Bordeaux/INRIA
- Edouard Gerbaud, University of Bordeaux/CHU
- Neil Maiden, CITY University of London
- François Légaré, Institut National de la Recherche Scientifique (INRS)
- Fabio Boschini, 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 1, 2022**
**Day 1 – Arrival**

**Monday, May 2, 2022**
**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)*
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 3, 2022
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 - Shedding light on quantum materials via advanced spectroscopy
Fabio Boschini – 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
Wednesday, May 4, 2022
Day 4 – Technology of Light | Light related Technologies

9:15-10:45  4.1 - Nanophotonics
tbd
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 5, 2022
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
Arnaud Prouzeau – University of Bordeaux/INRIA

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
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
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</thead>
<tbody>
<tr>
<td>15:30-17:30</td>
<td><strong>Transversal Skills Session</strong> How to communicate Science to a wide public</td>
<td>Alessandra Fornetti and Ilda Mannino – VIU-TEN Program</td>
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<td>Friday, May 6, 2022</td>
<td>**Day 6 – Light and (Modern/Future) Society</td>
<td>Wrap-up**</td>
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<td>9:15-10:45</td>
<td>5.3.1 - Harvesting solar light for Sustainable Development (i.e. Photocatalysis and Photovoltaics as part of the Sustainable Development)</td>
<td>Maarten Roeffers – KU Leuven</td>
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<td>10:45-11:00</td>
<td><strong>Break</strong></td>
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<tr>
<td>11:00-12:30</td>
<td>5.3.2 - Optical sensors based on nanomaterials for Environmental Protection</td>
<td>Paolo Prosposito – Tor Vergata University of Rome</td>
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<td>12:30-13:45</td>
<td><strong>Lunch Break</strong></td>
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<td>13:45-16:00</td>
<td><strong>Final Discussions and Wrap-up</strong></td>
<td>Everyone</td>
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*Saturday, May 7, 2022
Day 7 – Departure*