



Venice
International
University

**Venice International University
International PhD Academy**

Intense Lasers for Societal Applications

**Venice International University
May 13-17, 2024**

Faculty

1. Andrea Macchi, National Research Council of Italy (CNR), National Institute of Optics (INO), Italy. Scientific Coordinator
2. Emmanuel d'Humieres, University of Bordeaux, France, Scientific Coordinator
3. Joerg Schreiber, Ludwig-Maximilan University (LMU), Germany, Scientific Coordinator
4. Inka Manek-Honniger, University of Bordeaux (UB), France
5. Emanuela Reale, CNR/IRCRES, Italy
6. Elisabetta Baldanzi, CNR/INO, Italy
7. Caterina Vozzi, CNR/IFN, Italy
8. Katia Parodi, Ludwig-Maximilan University, Germany
9. Joao Santos, University of Bordeaux, France
10. Pier Luigi Mazzeo, CNR/ISASI, Italy
11. Oxana Mishina, CNR/INO, Italy

Guest speakers

1. Patrizio Antici, Institut National de la Recherche Scientifique (INRS), Canada
2. Anne Hildenbrand-Dhollande, Institut Saint-Louis (ISL), France

Day 1 | Monday, May 13, 2024

Morning |

09:30 – 10:00 Registration and Welcome Remarks (VIU & PhD Academy Coordinators)

10.00 – 11:00 *Ice break activity*: student's self-introduction with flash "single slide" presentation (students)

11.00 – 11.30 Break

11.30-- 12.30 Intense Laser-Matter Interaction (Andrea Macchi, CNR/INO)

12.30 – 14.00 Lunch

Afternoon |

14:00 – 15:00 High Power Lasers (Inka Manek-Honniger, UB)

15.00 – 16:30 Transversal Skills Session - How to Communicate Science (Elisabetta Baldanzi, CNR/INO)

16.30 – 17.00 Break

17.00 - 18.00 Transversal Skills Session -Quantum Technology in Italy and in Europe: study and job opportunities in academia and business (Oxana Mishina, CNR/INO)

Day 2 | Tuesday May 14, 2024

Morning |

9:00 – 10:00 Principles of Laser-Plasma Acceleration (Andrea Macchi, CNR/INO)

10:00 – 11:00 Laser-plasma acceleration: experiments (Joerg Schreiber, LMU)

11:00-11:30 Break

11.30 – 12:30 Laser Processing of Materials (Inka Manek-Honniger, UB)

12:30 - 13:30 New diagnostics using novel particle sources (Patrizio Antici, INRS)

13.30 – 14.45 Lunch

Afternoon |

14:45-16:15 Transversal Skills Session - Publish and Evaluate Research Results (Emanuela Reale, CNR/IRCRES)

16:15-16:30 Break

16:30 – 18:00 Student's short talks Session 1 (students)



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Day 3 | Wednesday May 15, 2024

Morning |

9:00 – 11:00 Image Guided Ion Beam Therapy & FLASH effect (Katia Parodi, LMU)

11:00 – 11:30 Break

11:30 – 12:30 Laser-plasma acceleration: applications (Joerg Schreiber, LMU)

12:30 – 13:30 Transversal Skills section: Project Proposal & Management (Patrizio Antici, INRS)

13:30 – 14:45 Lunch

Afternoon |

14:45 – 16:15 Student's short talks Session 2 (students)

16:15 Free time / Social program

19:30 Social dinner in Venice

Day 4 | Thursday May 16, 2024

Morning |

9:00-11:00 Attosecond Science (Caterina Vozzi, CNR/IFN)

11:00 – 11:30 Break

11:30 – 13:30 Laboratory Astrophysics (Emmanuel d'Humieres, UB)

13:30 – 14:45 Lunch

Afternoon |

14:45 – 16:45 Transversal Skills Session – AI for Science (Pier Luigi Mazzeo, CNR/ISASI)

16:45 – 17:00 Break

17:00 - 18:30 Transversal Skills Session – Patent Application & Commercialization, Networking & Negotiation Skills (Patrizio Antici, INRS)

Day 5 | Friday May 17, 2024

09:00 – 11:00 Lasers for Defense Applications (Anne Dhollande, ISL)

11:00– 11:30 Break

11:30 – 13:30 Lasers for Inertial Confinement Fusion (Joao Santos, UB)

13:30 – 14:45 Lunch

14:45 – 15:45 Final Discussion and Wrap-Up (VIU, PhD Academy Coordinators & students)

15:45 – 16:15 Departure



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