

Program

16-20 Feb 2026

Erasmus+
Enriching lives, opening minds.



Innovative Education & Training
in Laser Inertial Fusion Energy



Physics and Technology of Inertial Fusion Energy with focus on Laser Technology & Sources

Jena, University of Jena
Seminarroom Z4 Zwätzengasse 4 07743 Jena

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Monday 16 February

15:00

Registration and Welcome

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

15:30

15:30

ERASMUS+ Meeting: Introductory Test

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

Description

ERASMUS+ participants only

16:30

Tuesday 17 February

09:00

Lecture: Laser Fundamentals 1

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Karl Matthäus Zepf (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

09:00–10:30 (1h 30m) **Laser Fundamentals 1**

Speaker

Karl Matthäus Zepf (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

10:30

10:30

Break

Break | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

11:00

11:00

Lecture: Laser Fundamentals 2

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Malte Christoph Kaluza (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

11:00–12:30 (1h 30m) **Laser Fundamentals 2**

Speaker

Malte Christoph Kaluza (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

12:30

12:30

Lunch break

Break | **Location:** Jena, Mensa Philosophenweg, Philosophenweg 20 07743 Jena

14:00

14:00

Facility Demo

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

15:30

15:30

Break

Break | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

16:00

16:00

Problem Class

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

17:30

Wednesday 18 February

09:00

Lecture: Requirements for a Fusion Laser

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Karl Matthäus Zepf (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

09:00–10:30 (1h 30m)

Requirements for a Fusion Laser

Speaker

Karl Matthäus Zepf (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

10:30

10:30

Break

Break | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

11:00

11:00

Lecture: Simulating Lasers in Plasmas

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Daniel Seipt (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

11:00–12:30 (1h 30m)

Simulating Lasers in Plasmas

Speaker

Daniel Seipt (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

12:30

12:30

Lunch break

Break | **Location:** Jena, Mensa Philosophenweg, Philosophenweg 20 07743 Jena

14:00

14:00

PIC Simulation on Laser Propagation

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

15:30

15:30

Break

Break | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

16:00

16:00

Seminar: Laser Design Exemplified by a High-power Ti:Sapphire Laser

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Alexander Sävert (Helmholtz Institut Jena)

16:00–16:45 (45m)

Laser Design Exemplified by a High-power Ti:Sapphire Laser

Speaker

Alexander Sävert (Helmholtz Institut Jena)

16:45

16:45

Seminar: Laser Plasma Instabilities in Direct-drive ICF

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Xu Zhao (University of York)

16:45–17:30 (45m)

Laser Plasma Instabilities in Direct-drive ICF

Speaker

Xu Zhao (University of York)

17:30

Thursday 19 February

09:00

Lecture: Materials for Efficient Fusion Lasers

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Mikhail Pergament (Deutsches Elektronen Synchrotron (DESY))

09:00–10:30 (1h 30m)

Materials for Efficient Fusion Lasers

Speaker

Mikhail Pergament (Deutsches Elektronen Synchrotron (DESY))

10:30

10:30

Break

Break | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

11:00

11:00

Lecture: Biblis Fusion Laser

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Prof. Bruno LeGarrec

11:00–11:45 (45m)

Biblis Fusion Laser

Speaker

Bruno Le Garrec (Focused Energy GmbH)

11:45

11:45

Seminar: Progress on Face-cooling for High-average Power, High-energy Lasers

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Philippe Balcou (CELIA, Université de Bordeaux, CNRS, CEA)

11:45–12:30 (45m)

Progress on Face-cooling for High-average Power, High-energy Lasers

Speaker

Philippe Balcou (CELIA, Université de Bordeaux, CNRS, CEA)

12:30

12:30

Lunch break

Break | **Location:** Jena, Mensa Philosophenweg, Philosophenweg 20 07743 Jena

14:00

14:00

Problem Class

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

14:45

14:45

Seminar: ELI Fusion Laser

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Jakub Novak

14:45–15:30 (45m)

ELI Fusion Laser

Speaker

Jakub Novák (Eli Beamlines)

15:30

15:30

Break

Break | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

16:00

16:00
16:45
16:45
17:30
18:30
21:00

Seminar: Development of an Innovative Amplifier Based on a Radially Diode-pumped Tm:Lu₂O₃ Ceramic Disk

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Mohamed Ezzat (Postdoctor at Intense Laser Irradiation Laboratory (ILIL), Istituto Nazionale di Ottica (INO), Consigli Nazionale delle Ricerche (CNR))

16:00–16:45 (45m)

Development of an Innovative Amplifier Based on a Radially Diode-pumped Tm:Lu₂O₃ Ceramic Disk

Speaker

Mohamed Ezzat (Postdoctor at Intense Laser Irradiation Laboratory (ILIL), Istituto Nazionale di Ottica (INO), Consigli Nazionale delle Ricerche (CNR))

Seminar: A Novel Experimental Approach on Super-intense Laser-driven Ion Acceleration using Optically Shaped Gaseous Targets

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Ioannis Tazes (Institute of Plasma Physics and Lasers-IPPL, University Research and Innovation Centre, Hellenic Mediterranean University, 74100 Rethymno, Greece.)

16:45–17:30 (45m)

A Novel Experimental Approach on Super-intense Laser-driven Ion Acceleration using Optically Shaped Gaseous Targets

Speaker

Ioannis Tazes (Institute of Plasma Physics and Lasers-IPPL, University Research and Innovation Centre, Hellenic Mediterranean University, 74100 Rethymno, Greece.)

Social Dinner (ERASMUS+)

Break | **Location:** Hotel Schwarzer Bär, Lutherplatz 2, 07743 Jena

Friday 20 February

09:00

Lecture: Probing Fusion Plasmas with X-ray Lasers

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena | **Convener:** Ulf Zastrau (European XFEL)

09:00–10:30 (1h 30m)

Probing Fusion Plasmas with X-ray Lasers

Speaker

Ulf Zastrau (European XFEL)

10:30

10:30

Break

Break | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

11:00

11:00

ERASMUS+ Meeting: Completion Test

Session | **Location:** Jena, University of Jena, Seminarroom Z4 Zwätzengasse 4 07743 Jena

Description

ERASMUS+ participants only

12:30

12:30

Lunch break

Break | **Location:** Jena, Mensa Philosophenweg, Philosophenweg 20 07743 Jena

14:00