

# Nonlinear Optics (NLO)

## Summer Term 2025

### – General Information –

**Lecture:** Dr. Huanfa Peng  
Institute of Photonics and Quantum Electronics (IPQ)  
Building 30.10, Room 2.32.2  
Tel. 0721-608-42480  
[huanfa.peng@kit.edu](mailto:huanfa.peng@kit.edu)

on behalf of Prof. Dr.-Ing. Christian Koos

**Tutorial:** Daniel Drayß, Dr.  
Building 30.10, Room 1.21  
Tel. 0721-608-42496  
[daniel.drayss@kit.edu](mailto:daniel.drayss@kit.edu)

Mohamed Kelany, M.Sc.  
Building 30.10, Room 2.23/1  
Tel. 0721-608-41935  
[mohamed.kelany@kit.edu](mailto:mohamed.kelany@kit.edu)

Radwa Ahmed Abbas Khairy, M.Sc.  
Building 30.10, Room 1.23  
Tel. 0721-608-47173  
[radwa.khairy@kit.edu](mailto:radwa.khairy@kit.edu)

**Date and Location:** Tuesday, 9:45 - 11:15 h (usually lecture), EAS-Hörsaal, Building 11.10  
Wednesday, 8:00 – 9:30 h (usually tutorial), NTI-Hörsaal, Building 30.10

**Materials:** Slides, lecture notes and problem sets will be available through KIT's digital teaching platform ILIAS (<https://ilias.studium.kit.edu/>).

**Examination:**

- Oral; duration approx. 20 minutes (C. Koos and H. Peng)
- Dates on appointment; ask at IPQ's office for available time slots (Building 30.10, Room 3.44, [office@ipq.kit.edu](mailto:office@ipq.kit.edu)); registration online.
- **Bonus system:** During the term, three problem sets will be collected in the tutorial without prior announcement and graded. If more than 70% of each of these problem sets was solved correctly, your oral examination grade will be upgraded by a bonus of 0.3 or 0.4 (except for the grades of 1.0, and 4.7 or worse). Please always submit your solutions over the link provided in the folder "04\_Problem\_Sets" within the NLO ILIAS page before the respective tutorial starts. In this folder, you will find all problem sets, the link to upload your solution **by the respective deadline**, and the solutions appearing after the deadline. Please merge all pages into a single pdf file, and please use a scanner. Smartphone made snapshots are often illegible, and in that case your solutions can not be graded. In case there are any technical difficulties with ILIAS, you may also submit your solutions by e-mail to [nlo@ipq.kit.edu](mailto:nlo@ipq.kit.edu) before the respective tutorial starts.

**Semester plan:** Subject to modifications, which will be announced in the lecture or in the tutorial.

Tue, 22. April 2025: Lecture 1	Wed, 23. April 2025: Lecture 2
Tue, 29. April 2025: Lecture 3	Wed, 30. April 2025: Lecture 4
Tue, 06. May 2025: Tutorial 1	Wed, 07. May 2025: Tutorial 2
Tue, 13. May 2025: Lecture 5	Wed, 14. May 2025: Tutorial 3
Tue, 20. May 2025: Lecture 6	Wed, 21. May 2025: Tutorial 4
Tue, 27. May 2025: Lecture 7	Wed, 28. May 2025: Tutorial 5

Tue, 03. June 2025: Lecture 8	Wed, 04. June 2025: Lecture 9
09. June – 14. June 2025: No lectures (Pentecost)	
Tue, 17. June 2025: Tutorial 6	Wed, 18. June 2025: Tutorial 7
Tue, 24. June 2025: Lecture 10	Wed, 25. June 2025: Lecture 11
Tue, 01. July 2025: Lecture 12	Wed, 02. July 2025: Tutorial 8
Tue, 08. July 2025: Tutorial 9	Wed, 09. July 2025: Tutorial 10
Tue, 15. July 2025: Lecture 13	Wed, 16. July 2025: Lecture 14
Tue, 22. July 2025: Tutorial 11	Wed, 23. July 2025: Tutorial 12
Tue, 29. July 2025: Lab tour	Wed, 30. July 2025: Tutorial 13