Finanziato dall'Unione europea NextGenerationEU | Ministero dell'Università e della Ricerca | Italiadomani PIANO NAZIONALE DI RIPRESA E RESILIENZA

I-PHOQS INTEGRATED INFRASTRUCTURE INITIATIVE IN PHOTONIC AND QUANTUM SCIENCES

Calendar of I-PHOQS Individual Lectures and Short Courses

PhD students enrolling in I-PHOQS have access to lectures designed to broaden their expertise on cutting-edge research subjects.

The format comprises both **individual lectures** and **short courses**. Short courses consist of 2 or 3 lectures, where each lesson is preparatory for the next one.

All activities are offered **online in synchronous mode** to allow students to engage with the teacher.

The list of all activities and the calendar are given in the following pages.

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I-PHOQS INTEGRATED INFRASTRUCTURE INITIATIVE IN PHOTONIC AND QUANTUM SCIENCES

List of individual lectures

Lecture title	Teacher	Teacher email	Teacher Institution	Date	Virtual classroom link
Ultrafast transient absorption spectroscopy	Giulio Cerullo	giulio.cerullo@polimi.it	POLIMI-CUSBO	8 April 2024 10:00-12:00	Link to the virtual classroom
Ultrashort pulse characterization techniques: from femtosecond to attosecond	Rocio Borrego Varillas	rocio.borrego@polimi.it	CNR-IFN (Milan)	9 April 2024 10:00-12:00	Link to the virtual classroom
Adaptive optics for biomedical imaging	Stefano Bonora	stefano.bonora@cnr.it	CNR-IFN (Padua)	16 April 2024 14:00-16:00	Link to the virtual classroom
Monochromatization of ultrafast pulses	Luca Poletto	luca.poletto@cnr.it	CNR-IFN (Padua)	14 May 2024 10:00-12:00	Link to the virtual classroom
Design of high-efficiency EUV multilayer coatings	Alain Jody Corso	alainjody.corso@cnr.it	CNR-IFN (Padua)	21 May 2024 14:30-16:30	Link to the virtual classroom
Advances in Fluorescence Spectroscopy	Cosimo D'Andrea	cosimo.dandrea@polimi.it	POLIMI-CUSBO	29 May 2024 10:00-12:00	Link to the virtual classroom

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I-PHOQS INTEGRATED INFRASTRUCTURE INITIATIVE IN PHOTONIC AND QUANTUM SCIENCES

List of short courses

Short course title	Teachers	Teacher email	Teacher Institution	Date	Virtual classroom link
Photodetection: from classical shot noise limit to quantum squeezing	Francesco Cappelli, Tecla Gabbrielli	francesco.cappelli@ino.cnr.it tecla.gabbrielli@ino.cnr.it	CNR-INO (Florence)	5, 12 February 2024 10:00-13:00	Link to the virtual classroom
Photovoltaics: materials and devices	Salvatore Antonino Lombardo	salvatore.lombardo@cnr.it	CNR-IMM (Catania)	20 March, 9:30-11:30 22 March, 9:30-11:30	Link to the virtual classroom
Introduction to soft-X Ray optics	Luca Poletto, Paola Zuppella, Alain Jody Corso	luca.poletto@cnr.it paola.zuppella@cnr.it alainjody.corso@cnr.it	CNR-IFN (Padua)	6, 8, 10 May 2024 14:00-17:00	Link to the virtual classroom
Optical design methodologies for high-intensity applications	Fabio Frassetto	fabio.frassetto@cnr.it	CNR-IFN (Padua)	13, 15, 17 May 2024 14:00-17:00	Link to the virtual classroom
Introduction to cold-atom based quantum simulation and light-matter interfaces	Natalia Bruno, Pietro Lombardi Maximilian Schemmer	natalia.bruno@ino.cnr.it lombardi@lens.unifi.it schemmer@lens.unifi.it	CNR-INO (Florence)	4, 5, 6 June 2024 14:00-16:00	Link to the virtual classroom
Optical frequency comb synthesizer from UV to THz	Francesco Cappelli, Tecla Gabbrielli	francesco.cappelli@ino.cnr.it tecla.gabbrielli@ino.cnr.it	CNR-INO (Florence)	18, 25 September 2024, 10:00-13:00	Link to the virtual classroom
Introduction to adaptive optics	Stefano Bonora	stefano.bonora@cnr.it	CNR-IFN (Padua)	**Autumn 2024 (exacts dates to be determined)**	Link to the virtual classroom

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2024 FEBRUARY

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
29	30	31	01	02	03	04
05 **Photodetection: from classical shot noise limit to quantum squeezing PART 1** Teachers: **Francesco Cappelli/Tecla Gabrielli** **10:00 - 13:00**	06	07	08	09	10	11
12 **Photodetection: from classical shot noise limit to quantum squeezing PART 2** Teachers: **Francesco Cappelli/Tecla Gabrielli** **10:00 - 13:00**	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	01	02	03

SHORT COURSE

LECTURE

2024

MARCH

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
26	27	28	29	01	02	03
04	05	06	07	08	09	10
11	12	13	14	15	16	17
18	19	20 **Photovoltaics: materials and devices - PART 1** Teachers: **Salvatore Lombardo** **9:30 - 11:30**	21	22 **Photovoltaics: materials and devices - PART 2** Teachers: **Salvatore Lombardo** **9:30 - 11:30**	23	24
25	26	27	28	29	30	31

SHORT COURSE

LECTURE

2024 APRIL

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
01	02	03	04	05	06	07
08 **Ultrafast transient absorption spectroscopy** Teacher: **Giulio Cerullo** **10:00 - 12:00**	09 **Ultrashort pulse characterization techniques: from femtosecond to attosecond** Teacher: Rocio Borrego Varillas **10:00 - 12:00**	10	11	12	13	14
15	16 **Adaptive optics for biomedical imaging** Teacher: **Stefano Bonora** **14:00 - 16:00**	17	18	19	20	21
22	**23**	**24**	25	26	27	28
29	30	01	02	03	04	05

SHORT COURSE

LECTURE

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I-PHOQS INTEGRATED INFRASTRUCTURE INITIATIVE IN PHOTONIC AND QUANTUM SCIENCES

2024 MAY

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
29	30	01	02	03	04	05
06 **Introduction to soft-X Ray optics - PART 1** Teacher: **Luca Poletto** **14:00 - 17:00**	07	08 **Introduction to soft-X Ray optics - PART 2** Teacher: **Paola Zuppella** **14:00 - 17:00**	09	10 **Introduction to soft-X Ray optics - PART 3** Teacher: **Alain Jody Corso** **14:00 - 17:00**	11	12
13 **Optical design methodologies for high-intensity applications - PART 1** Teacher: Fabio Frassetto **14:00 - 17:00**	14 **Monochromatization of ultrafast pulses** Teacher: **Luca Poletto** **10:00 - 12:00**	15 **Optical design methodologies for high-intensity applications - PART 2** Teacher: Fabio Frassetto **14:00 - 17:00**	16	17 **Optical design methodologies for high-intensity applications - PART 3** Teacher: Fabio Frassetto **14:00 - 17:00**	18	19
20	21 **Design of high-efficiency multilayer coatings** Teacher: **Alain Jody Corso** **14:30 - 16:30**	22	23	24	25	26
27	28	29 **Advances in Fluorescence Spectroscopy** Teacher: Cosimo D'Andrea **10:00 - 12:00**	30	31	01	02

SHORT COURSE
LECTURE

2024 JUNE

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
27	28	29	30	31	01	02
03	04	05	06	07	08	09
	Introduction to cold-atom based quantum simulation and light-matter interfaces - PART 1 Teacher: **Pietro Lombardi** **14:00 - 16:00**	**Introduction to cold-atom based quantum simulation and light-matter interfaces - PART 2** Teacher: **Natalia Bruno** **14:00 - 16:00**	**Introduction to cold-atom based quantum simulation and light-matter interfaces - PART 3** Teacher: **Maximilian Schemmer** **14:00 - 16:00**			
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

SHORT COURSE
LECTURE

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2024 SEPTEMBER

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
26	27	28	29	30	31	01
02	03	04	05	06	07	08
09	10	11	12	13	14	15
16	17	18 **Optical frequency comb synthesizer from UV to THz - PART 1** Teachers: **Francesco Cappelli/Tecla Gabrielli** **10:00 - 13:00**	19	20	21	22
23	24	25 **Optical frequency comb synthesizer from UV to THz - PART 2** Teachers: **Francesco Cappelli/Tecla Gabrielli** **10:00 - 13:00**	26	27	28	29

SHORT COURSE
LECTURE