VNiVERSiDAD D SALAMANCA

Unidad de Excelencia en Luz y Materia Estructuradas (LUMES)









Detailed program







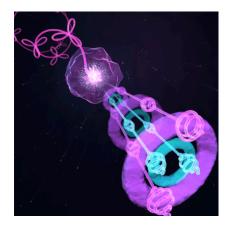


Welcome to the first **International Summer School on Structured Light and Matter**

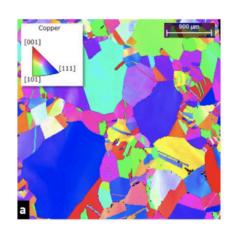
July 7-11, 2025. Salamanca, Spain

Organized by: Unidad de Excelencia en Luz y Materia Estructuradas (LUMES-USAL)

The Summer School will be held in the research groups and centers integrated into LUMES: Laser Applications and Photonics (ALF); Quantum Materials and Devices (QMADE); Research Group on Simulation of Magnetic Nanostructures (SINAMAG); Pulsed Laser Center (CLPU); Laboratory of Mechanical Engineering Applied to Design, Manufacturing and Applications of Composite Materials (LAMCOM).



TOPIC 1: STRUCTURED LIGHT



TOPIC 2: STRUCTURED MATTER



TOPIC 3: LIGHT-MATTER INTERACTION

HOURS	MONDAY, July 7th	
9:00 – 9:30	Registration Edificio Trilingüe Room 2	
9:30 – 9:45	Introduction and Welcome Edificio Trilingüe Room 2 Open Entry	
9:45 – 11:15	1.1 Keynote (Open Entry) Lecture on Structured Light - Phase and polarisation textures in structured light. Sonja Franke-Arnold, University of Glasgow Edificio Trilingüe Room 2	
11:15 – 11:30	Coffee Break	
11:30 – 13:30	1.2 Hands on Python - Structured Light. Luis Plaja, Carlos Hernández-García <i>Edificio Trilingüe Room 0</i>	
13:30 – 15:30	Lunch	
15:30 – 17:15	1.2 Hands on Python - Structured Light. Luis Plaja, Carlos Hernández-García <i>Edificio Trilingüe</i> <i>Room 0</i>	
17:15 – 17:30	Break	
17:30 – 19:15	1.4 Ultrashort Laser Pulses. Benjamín Alonso, Enrique Conejero <i>Edificio Trilingüe</i> <i>Room 2</i>	
19:15 – 19:30	Group photo Edificio Trilingüe	
20:30 – 21:00	Guided tour to Salamanca (Registered participants) Departure point: Edificio Trilingüe	

HOURS	TUESDAY, July 8th		
9:00 – 11:00	1.3 Experimental Generation of Structured Light Ignacio López-Quintás, Aurora Crego, David Marco Edificio Trilingüe Holography lab 1 Group 1A	1.3 Experimental Generation of Structured Light Ignacio López-Quintás, Aurora Crego, David Marco Edificio Trilingüe Holography lab 2 Group 2A	1.4 Ultrashort Laser Pulses Benjamín Alonso, Enrique Conejero Edificio Trilingüe ALF-Laser Laboratory Group 3A
11:00 – 11:30	Coffee Break		
11:30 – 13:30	1.3 Experimental Generation of Structured Light Ignacio López-Quintás, Aurora Crego, David Marco Edificio Trilingüe Holography lab 1 Group 2A	1.3 Experimental Generation of Structured Light Ignacio López-Quintás, Aurora Crego, David Marco Edificio Trilingüe Holography lab 2 Group 3A	1.4 Ultrashort Laser Pulses Benjamín Alonso, Enrique Conejero Edificio Trilingüe ALF-Laser Laboratory Group 1A
13:30 – 15:30	Lunch		
15:30 – 17:15	1.3 Experimental Generation of Structured Light Ignacio López-Quintás, Aurora Crego, David Marco Edificio Trilingüe Holography lab 1 Group 3A	1.3 Experimental Generation of Structured Light Ignacio López-Quintás, Aurora Crego, David Marco Edificio Trilingüe Holography lab 2 Group 1A	1.4 Ultrashort Laser Pulses Benjamín Alonso, Enrique Conejero Edificio Trilingüe ALF-Laser Laboratory Group 2A
17:15 – 17:30	Break		
17:30 – 19:15	2.3 Hands-on tutorial on magnetic nanostructures. Luis López, Felipe García, Victor Raposo Edificio Trilingüe Room 0		
20:00 – 21:00	Coffee meeting (Registered participants)		

HOURS	WEDNESDAY, July 9th		
9:00 – 11:00	2.1 Keynote (Open Entry) Lecture on Structured Matter: Structuring matter on the nanoscale. Peter Bøggild, Technical University of Denmark Edificio Trilingüe Room 2		
11:00 – 11:30	Coffee Break		
11:30 – 12:15	3.1 Optoelectronic measurements of quantum devices José M. Caridad, Óscar Castelló Laboratorio de Materiales Cuánticos Edificio Multiusos I+D+I USAL, floor 0 Group 1B	2.2 Fabrication of 2D quantum materials and van der Waals heterostructures Juan A. Delgado-Notario, Namrata Saha Laboratorio de Materiales Cuánticos Edificio Multiusos I+D+I USAL, floor -3 Group 2B	
12:15 – 13:30	3.1 Optoelectronic measurements of quantum devices José M. Caridad, Óscar Castelló Laboratorio de Materiales Cuánticos Edificio Multiusos I+D+I USAL, floor 0 Group 2B	2.2 Fabrication of 2D quantum materials and van der Waals heterostructures Juan A. Delgado-Notario, Namrata Saha Laboratorio de Materiales Cuánticos Edificio Multiusos I+D+I USAL, floor -3 Group 1B	
13:30 – 15:30	Lunch		
15:30 – 16:30	3.1 Optoelectronic measurements of quantum devices José M. Caridad, Óscar Castelló Laboratorio de Materiales Cuánticos, Edificio Multiusos I+D+I USAL, floor 0 Group 3B	2.2 Fabrication of 2D quantum materials and van der Waals heterostructures Juan A. Delgado-Notario Namrata Saha Laboratorio de Materiales Cuánticos, Edificio Multiusos I+D+I USAL, floor -3 Group 4B	
16:20 – 17:15	3.1 Optoelectronic measurements of quantum devices José M. Caridad, Óscar Castelló Laboratorio de Materiales Cuánticos, Edificio Multiusos I+D+I USAL, floor 0 Group 4B	2.2 Fabrication of 2D quantum materials and van der Waals heterostructures Juan A. Delgado-Notario, Namrata Saha Laboratorio de Materiales Cuánticos, Edificio Multiusos I+D+I USAL, floor -3 Group 3B	
17:15 – 17:30	Break		
17:30 – 19:15	2.3 Hands-on tutorial on magnetic nanostructures. Luis López, Felipe García, Victor Raposo Edificio Trilingüe Room 0		
21:15 – 22:30	Student & Researcher Interaction (Registered participants, cocktel included) Place: Restaurante Arzobispo Fonseca		

HOURS	THURSDAY, July 10th	
8:50 – 9:15	Going to CLPU (Bus Registered participants) Departure point: Museum of Automotive History	
9:15 – 12:30	Visit to Centro de Láseres Pulsados (CLPU) Cruz Méndez, Enrique García, Irene Hernández, Alejandro Huerta	
12:30 – 13:30	Return from the CLPU (Bus)	
13:30 – 15:30	Lunch	
15:30 – 17:15	3.3 Introduction to Optical Fibers. Íñigo Sola, Julio San Román <i>Edificio Trilingüe</i> <i>Room 2</i>	
17:15 – 17:30	Break	
17:30 – 18:30	3.2 Material processing with Ultrashort Laser Pulses. Javier Rodríguez, Pablo Moreno, Carolina Romero Edificio Trilingüe Room 2	
18:30 – 19:15	2.4 Nanoarchitectures and Material Design. Roberto de Guzmán de Villoria, Jorge Bautista <i>Edificio Trilingüe</i> <i>Room 2</i>	

HOURS	FRIDAY, July 11th	
9:00 – 10:00	3.2 Material processing with Ultrahort Laser Pulses Javier Rodríguez Vázquez, Pablo Moreno, Carolina Romero Edificio Trilingüe Laboratorio Láser Group 1B	3.3 Introduction to Optical Fibers Íñigo Sola, Julio San Román
10:00 – 11:00	3.2 Material processing with Ultrahort Laser Pulses Javier Rodríguez Vázquez, Pablo Moreno, Carolina Romero Edificio Trilingüe Laboratorio Láser Group 2B	Edificio Trilingüe Laboratorio de Óptica, door T0102 Groups 3B & 4B
11:00 – 11:30	Coffee Break	
11:30 – 12:30	3.2 Material processing with Ultrahort Laser Pulses Javier Rodríguez Vázquez, Pablo Moreno, Carolina Romero Edificio Trilingüe Laboratorio Láser Group 3B	3.3 Introduction to Optical Fibers Íñigo Sola, Julio San Román
12:30 – 13:30	3.2 Material processing with Ultrahort Laser Pulses Javier Rodríguez Vázquez, Pablo Moreno, Carolina Romero Edificio Trilingüe Laboratorio Láser Group 4B	Edificio Trilingüe Laboratorio de Óptica, door T0102 Groups 1B & 2B
13:30 – 15:30	Concluding remarks	

INTERNATIONAL SUMMER SCHOOL ON STRUCTURED LIGHT AND MATTER

Student groups for practical sessions.

GROUP A, Tuesday sessions			
Group 1A	Group 2A	Group 3A	
Maria Grazia Laera	Cesare Barina	Hiba Perumannil Sainudeen	
Nathaly Sánchez Blacio	Daniel García González	Álvaro Ferrero Veintemilla	
Alex Martínez Carbajo	María Flores Ceballos	Blanca Durán Salvador	
Arantza Pineda González	Rebeca Sánchez Alonso	Sergio Pelegrín Cayuela	
Samuel Fuentes Terrón	Ramy Harib	Sofía López Baptista	
Hugo Tadeo Álvarez	Alejandro Yagüe Moreno	Patricia González Piquero	
		Gonzalo de la Calle García	

GROUP B, Wednesday & Friday sessions		
Group1B	Group 2B	
Cesare Barina	Sofía López Baptista	
Hiba Perumannil Sainudeen	Daniel García González	
Arantza Pineda González	Nathaly Sánchez Blacio	
Ramy Harib	Patricia González Piquero	
Maria Grazia Laera	María Flores Ceballos	
Group 3B	Group 4B	
Blanca Durán Salvador	Samuel Fuentes Terrón	
Hugo Tadeo Álvarez	Álvaro Ferrero Veintemilla	
Alejandro Yagüe Moreno	Sergio Pelegrín Cayuela	
Gonzalo de la Calle García	Rebeca Sánchez Alonso	
Alex Martínez Carbajo		