



**UNIVERSITY
OF TRIESTE**

PhD DAYS 2026

Annual workshop
of the PhD students in Nanotechnology
UNIVERSITY OF TRIESTE

February 9-11, 2026

Ex Ospedale Militare
via Fabio Severo 40, 34127 Trieste



Organizers: Paola Posocco and Albano Cossaro

DAY 1

14:00-14:15

OPENING

Paola Posocco – *Coordinator of the PhD Program in Nanotechnology, University of Trieste*

Federico Becca – *Deputy Head of the Department of Physics, University of Trieste*

CHAIR: FRANCESCA LARESE FILON

14:15-14:35

Maddalena Frea

Production and combined use of anti-GPC3 monoclonal antibodies, nanoparticles, and CAR-T cells for the treatment of hepatocellular carcinoma

14:35-14:55

Carmela Tangredi

Anti-CD138 antibody nanoplatfom for targeting of multiple myeloma and reverting tumor microenvironmental invasiveness

14:55-15:15

Valeria La Fauci

Drug delivery and new antitumor therapeutic strategies for ovarian carcinomas

15:15-15:35

Ana Svetić*

GUVs and GPMVs: giant vesicles as plasma membrane models for phase separation and observation of internalization of extracellular vesicles

15:35-16:00

COFFEE BREAK

CHAIR: ALOIS BONIFACIO

16:00-16:20

Alvise Camurri Pilon

A new 3D-printed PCL scaffolds treated with nanohydroxyapatites to enhance osteogenic differentiation

16:20-16:40

Gabriele Cavalieri

Prediction of key properties of molecular (nano)systems for biological and industrial application through HPC-based techniques and experimental validation

16:40-17:00

Oyut Batchuluun

Development of hybrid platforms for quantum computation applications

17:00-17:20

Ahmad Abdur Rehman
Mushtaq*

Synthesis of core/shell quantum dots for photothermal applications

17:20-17:40

Hemanita Sharma

KNbO₃-based multiferroic heterostructures: a lead-free alternative for strain-driven magnetic modulations.

*Online

DAY 2

CHAIR: PAOLA POSOCCO

9:00-10:00	LUKA DORDEVIC	Photocatalysis with aggregated organic dyes
10:00-10:20	Andrea Berti	2D phase diagram of iron sulfides on Au(111)
10:20-10:40	Gaia Grando	Development of metal-free photocatalysts for advanced photocatalytic organic synthesis
10:40-11:10	COFFEE BREAK	

CHAIR: PAOLO MACOR

11:10-11:30	Francesca Lovati	The application of surface-enhanced Raman spectroscopy for drug analysis
11:30-11:50	Tsague Diffo Ottis	3D bioprinting of polymer-based structures for organoids and cellular systems
11:50-12:10	Giuseppina Sacco	Electrophoretic device for bacteria manipulation in fluid samples
12:10-12:30	Roberto Gobatto	On the (mis)-interpretation of human serum SERS bands: facing a persistent literature debate
12:30-12:50	Shathar Alobeidat	Surface-enhanced Raman spectroscopy for the detection of pharmaceutical active ingredients

12:50-14:00 **LUNCH**

CHAIR: ALBANO COSSARO

14:00-14:20	Stefano Vigneri	Synthesis and characterization of functional carbon-based 2D materials for catalysis and sensing
14:20-14:40	Giacomo Agnesod	Exciton dynamics at heterojunctions
14:40-15:00	Davide Piva*	2D self-assembled monolayers as transport layers in organic photovoltaic devices
15:00-15:20	Simone Micheloni	Electronic properties of 2D COFs related systems
15:30-16:00	Mikhail Bandurist	Growth and characterization of novel graphene-based materials

16:00-17:00 **COFFEE BREAK + POSTER SESSION**

CHAIR: SERENA BONIN

17:00-17:20	Chiara Battistelli	Fused Deposition Modeling of Thermotropic Liquid Crystal Polymer Nanocomposites: The influence of different nanofillers on the inter-layer adhesion
17:20-17:40	Matilde Longhini	Design and synthesis of fluorinated nanomaterials and their applications
17:40-18:00	Simone Zucchelli	A rational journey towards the in-silico description and prediction of metal-organic cages

20:00 - **SOCIAL DINNER** Rosso Pomodoro, Riva Tommaso Gulli 8, Trieste

DAY 3

CHAIR: ALBERTO MORGANTE

9:00-10:00	EGBERT ZOJER	Understanding thermal transport in complex materials via quantitatively accurate simulations employing machine-learned force fields
10:00-10:20	Gaia Castellani	Boosting hydrogen evolution via nanoparticle–single atom synergy
10:20-10:40	Laura Morbiato	Small dots, big chemistry: Carbon dots as emergent functional nanomaterials
10:40-11:00	Alma Kadric	Innovative biomimetic platform combining carbon dots and polymeric nanoparticles for precision diagnosis and treatment of pancreatic ductal adenocarcinoma
11:00-11:20	Melaku Mekuria Teklehawariyat	XUV metalenses for spectroscopic and morphological characterization of C-based quantum dots
11:20-12:00	COFFEE BREAK	

CHAIR: PAOLA POSOCCO AND FRANCESCO LONGO (Rector's Delegate for Doctorates)

12:00-12:20	“FERNANDO TOMMASINI” AWARD
	“ALESSANDRO DE VITA” AWARD
	“BEST CAREER “AWARD
	Closing remarks

PRESENTING STUDENTS

XL cycle

Agnesod Giacomo
Ahmad Abdur Rehman
Mushtaq
Bandurist Mikhail
Batchuluun Oyut
Kadric Alma
La Fauci Valeria
Teklehawariyat Melaku
Mekuria

XXXIX cycle

Alobeidat Shathar
Battistelli Chiara

Frea Maddalena
Gobbato Roberto
Longhini Matilde
Lovati Francesca
Micheloni Simone

Piva Davide
Sacco Giuseppina
Sharma Hemanita
Svetić Ana
Tangredi Carmela
Tsague Diffo Ottis
Vigneri Stefano
Zucchelli Simone

XXXVIII cycle

Berti Andrea
Camurri Pilon Alvisè

Castellani Gaia
Cavalieri Gabriele
Grando Gaia
Morbiato Laura

PARTECIPANT STUDENTS

Belloni Camilla
Coltrioli Gabriele
Galluppo Elisabetta
Hammad Ahmed
Gamil Gamal Qasem Hasan
Quarin Matteo
Rossi Angelica
Sanati Ali
Turoldo Alberto