

CROSSNANO
CROSSBORDER
WORKSHOP
IN NANOSCIENCE
AND
NANOTECHNOLOGY

WHEN

23-25 February 2021
9:00 – 18:00

WHERE

On line

Via Microsoft Teams

PhD School in Nanotechnology

UNIVERSITY OF TRIESTE

ORGANIZERS

**University of
Trieste**

**Jožef Stefan
International
Postgraduate
School**

**Jožef Stefan
Institute**

**University of
Ljubljana**

FEBRUARY 23

9:00-9:30	OPENING Alberto Morgante – Coordinator of the PhD School in Nanotechnology, University of Trieste Giovanni Comelli – Director of the Physics Department of the University of Trieste Valter Sergio – Deputy Rector of the University of Trieste			
CHAIR: ALBERTO MORGANTE				
09:30-10:30	Denis Scaini Imperial College London (UK) <i>Nanoconfined environments: from biological reactions to cellular modulation</i>			
10:30-10:50	BREAK			
CHAIR: GIOVANNI COMELLI				
	PhD student	Cycle	Supervisor	Title
10:50-11:10	Matteo Bisetto	35	P. Fornasiero	A study inside the photo-catalytic behavior of well-defined Cu ₂ O nanoparticles
11:10-11:30	Filippo Costa	35	S. Prato	Imaging and analysis at nanoscale. Merging between SPM and optics
11:30-11:50	Matteo Cretella	35	L. Pasquato	Design, synthesis and use of organic-inorganic nanoparticles protected by fluorinated ligands as nanomaterial for imaging and therapy
11:50-12:10	Federico Loi	35	A. Baraldi	Investigation of structural and chemical properties of mass-selected clusters supported by 2D materials and oxides
12:10-12:30	Anže Mraz		D. Mihailović	Nanoscale charge configuration memory devices and their use in cryocomputing environment
12:30-14:30	LUNCH			
CHAIR: DARJA LISJAK				
	PhD student	Cycle	Supervisor	Title
14:30-14:50	Oana Condurache		A. Benčan	Atomically resolved properties of domain walls in ferroelectric BiFeO ₃ bulk
14:50-15:10	Silvia Mauri	35	P. Torelli	Investigation of the surface reactivity of catalysts by operando X-ray absorption spectroscopy with synchrotron radiation
15:10-15:30	Edoardo Raciti	35	M. Prato	Light-driven electron transfer processes performed by carbon nitride-based nanocatalysts
15:30-15:50	Aharon Steffè	35	G. Toffoli	Triple-action nanoplatform for theranostic applications in hepatocellular carcinoma (HCC)
15:50-16:10	BREAK			
CHAIR: ALOIS BONIFACIO				
	PhD student	Cycle	Supervisor	Title
16:10-16:30	Živa Marinko		M. Čeh	Anodized titanium foils for a flexible TiO ₂ photocatalyst
16:30-16:50	Mina Taleblou	35	S. Piccinin	Controlling the oxidizability of supported Platinum nanoclusters

16:50-17:10 Michele Zanetti 35 M. Lazzarino Hybrid organic interfaces to investigate the mechanical competence of cardiac myocytes, in order to drive their appropriate development

FEBRUARY 24

CHAIR: LOREDANA CASALIS				
	PhD student	Cycle	Supervisor	Title
09:30-9:50	Marco Beltrami	34	O. Sbaizero	Nanostructuring multilayer ceramic coatings for wood cutting tools
09:50-10:10	Erik Betz-Güttner	34	M. Lazzarino	Terahertz sensing with golay cells microarray device
10:10-10:30	Davide Busatto	34	G. Toffoli	A novel approach for the treatment of pancreatic ductal adenocarcinoma adopting anti-Glypican 1 polymeric nanoparticles loaded with chemotherapeutic agents
10:30-10.50	Martina Conti	34	M. Lazzarino	Nanomechanics structures for the detection and study of cells
10:50-11:10	Ivan Spajić		I. Milošev	Single and multilayer Al ₂ O ₃ and HfO ₂ thin films prepared by atomic layer deposition as corrosion protection of medical stainless steel and titanium
11:10-11:30	BREAK			
CHAIR: TOMAŽ MERTELJ				
	PhD student	Cycle	Supervisor	Title
11:30-11.50	Mario Daka	34	L. Pasquato	Synthesis, nanocharacterization and applications of nanoparticles and nanomaterials with controlled properties
11:50-12:10	Federica Di Cintio	34	G. Toffoli	Nanoparticles anti-GPC1 loaded with chemotherapy drug in glioblastoma multiforme (GBM) treatment
12:10-12:30	Simone Di Noja	34	M. Prato	Synthesis, properties and applications of nanocarbonaceous systems
12:30-12.50	Patricija Hribar Boštjančič		A. Mertlej	Phase behaviour of alcohol suspensions of magnetic barium hexaferrite nanoplatelets
12:50-14:50	LUNCH			
CHAIR: JELENA PAPAN				
	PhD student	Cycle	Supervisor	Title
14:50-15:10	Alessandro Esposito	34	V. Sergo	Design, nanofabrication and characterization of nanostructured metal surfaces as substrates for SERS for bioanalytic analyses and study of their behavior at the nano-biointerface
15:10-15:30	Marcello Ferrara	34	P. Fornasiero	Smart nanostructured electrocatalysts for carbon dioxide reduction

15:30-15:50	Arianna Gazzì	34	M. Prato	Immunocompatibility and biomedical applications of new nanocarbons
15:50-16:10	Matej Šadl		H. Uršič	Aerosol deposition as an enabling technology for flexible energy storage and electrocaloric devices
16:10-16:30	BREAK			
CHAIR: SLAVKO KRALJ				
	PhD student	Cycle	Supervisor	Title
16:30-16:50	Ahmed Alsadig Ahmed Mohammed	34	L. Casalis	Targeted peptide-functionalized PEG coated gold nanoparticles and their influence on cell mechanical properties: application to cancer treatment
16:50-17:10	Monica Mossenta	34	G. Toffoli	Development of a drug delivery therapy strategy through polymeric nanoparticles with an anti-GPC3 antibody coating and chemotherapeutic loading to treat hepatocellular carcinoma
17:10-17:30	Cristian Soncini	34	M. Pedio	Non equilibrium phenomena: effect on spectroscopies in semiconductors
17:30-17:50	Chiara Stocco	34	Z. M. Arnez	Nanofiber polymeric scaffold for slow and steady release of VEGF and ECs to induce efficient angiogenesis and healing in a mouse model of hind limb ischemia

FEBRUARY 25

CHAIR: NEREA SEBASTIAN UGARTECHE				
	PhD student	Cycle	Supervisor	Title
9:30-9:50	Alice Battistella	33	M. Lazzarino	Atomic Force spectroscopy-based essay to evaluate oocyte post-ovulatory ageing
9:50-10:10	Sebastjan Nemec		S. Kralj	Synthesis of silica coatings with diverse surface morphologies on anisotropic magnetic nanoparticles for magneto-mechanical actuation
10:10-10:30	Leonard Moriau		N. Hodnik	From oxygen reduction reaction and oxygen evolution reaction catalysts to a single multifunctional catalyst for the Regenerative PEM Fuel Cell
10:30-10:50	Lima Maria Augusta Do Rego Barros Fernandes	33	D. Cojoc	Investigating label-free markers at nanoscale for cancer cells using
10:50-11:10	BREAK			
CHAIR: VANNI LUGHI				
	PhD student	Cycle	Supervisor	Title
11:10-11:30	Sara Fiori	33	C. Africh	N-doped graphene on Ni(111): Growth and reactivity
11:30-11:50	Rok Venturini		D. Mihailović	Research of ultrafast phase switching in 1T-TaS ₂ by a picosecond electrical pulse
11:50-12:10	Timur Nurmamytov	33	S. Rubini	Growth of ordered nanowire arrays containing magnetic inserts
12:10-12:30	Beatrice Senigagliaesi	33	P. Parisse	Biophysical and biomolecular analysis of EVs and their interaction with target cells
12:30-14:30	LUNCH			
CHAIR: ALBERTO MORGANTE				
	PhD student	Cycle	Supervisor	Title
14:30-14:50	Domenico Tierno	33	S. Bonin	Comprehensive characterization and effective combinatorial targeting of high-grade serous ovarian cancer via single-cell analysis
14:50-15:10	Stefano Valente	33	L. Pasquato	Hybrid nanoparticles for theranostics: design, synthesis and characterization
15:10-15:30	BREAK			
15:30-15:50	"FERNANDO TOMMASINI" AWARD "ALESSANDRO DE VITA" AWARD "BEST CAREER" AWARD			
15:50-16:10	CLOSING REMARKS Alberto Morgante – Coordinator of the PhD School in Nanotechnology, University of Trieste Dragan Mihailović – Director of the Centre of Excellence in Nanoscience and Nanotechnology (Ljubljana), Institut Jožef Stefan and University of Ljubljana			