

Topics:

STORM (Stochastic Optical Reconstruction Microscopy), direct-STORM
SIM (Structured Illumination Microscopy)
Confocal Microscopy
ISM (Image Scanning Microscopy)
2PEFM (Two-photon excitation fluorescence microscopy)
SHG (Second Harmonic Generation) microscopy
STED (STimulated Emission Depletion) microscopy
FLIM (Fluorescence Lifetime Imaging Microscopy)
FCS (Fluorescence correlation spectroscopy)
Label-Free microscopy
Polarization microscopy
Sample preparation
Expansion microscopy
Correlative microscopy

Instruments - workstations

N1: Nikon confocal AX NSPARC resonant
Matteo Parri and Mattia Pesce

N2: Nikon N-STORM and N-SIM
Simone Civita, Lisa Cuneo, and Ranieri Bizzarri

N3: Nikon A1MP spectral resonant and FLIM (by ISS)
Marco Scotto D'Abbusco and Michele Oneto

N4: Nikon - CREST spinning disk V3
Giacomo Cozzi



N5: Sample Preparation and Expansion Microscopy
Francesca Baldini, Chantal Usai and Lama Zeaiter

N6: Correlative fluorescence - atomic force microscopy
Matteo Mariangeli and Davide Odino

N7: Custom ISM and spad-FFS
Eli Slenders, Eleonora Perego and Andrea Bucci

N8: Custom STED-ISM, FLISM
Alessandro Zunino, Marcus Oliver Held and Sabrina Zappone

N9: Genoa Instruments PRISM
Marco Castello, Simonluca Piazza, Paolo Bianchini



N10: Polarization microscopy, Lab tour and Q&A
Fabio Callegari, Alberto Diaspro, Peter Saggau

Registration visit nic.iit.it or mix.iit.it

For IIT/SIOF/SIBPA/UNIGE members:

PhD students and junior postdocs: 170 €

Postdocs: 250 €

groups (more than one person from the same research group):

120 € each person (both PhD students and postdocs)

Companies: 600 €

Non member:

PhD students and junior postdocs: 220 €

Postdocs: 300 €

The fee will include technical and scientific material, all together social dinner, and lunches.



8th NIC@IIT Nanoscopy 2.0

PRACTICAL WORKSHOP on ADVANCED MICROSCOPY
27th November to 1st of December 2023

nic.iit.it and mix.iit.it

...try the new NSPARC!



Directors: Paolo Bianchini and Alberto Diaspro

KEYNOTE SPEAKERS

Martin Oheim

Université Paris Cité, CNRS, Saints-Pères Paris Inst. for theNeurosciences, Paris, France

Irene Farabella

Integrative Nuclear Architecture, Istituto Italiano di Tecnologia, Genoa, Italy

Dario Polli

Department of Physics, Politecnico di Milano, Milan, Italy

Adi Salomon

Department of Chemistry, Institute of Nanotechnology and Advanced Materials (BINA), Bar-Ilan University, Ramat-Gan, Israel

Pietro Delcanale

Dip.Scienze Mat., Fis. e Inf., Università di Parma, Parma, Italy.

Francesca Cella Zanacchi

Dep. Physics, University of Pisa, Pisa, Italy

Peter Saggau

Baylor College, Houston, USA

Ranieri Bizzarri

Dep. Surg., Med. Molec. Path., Crit. Care Medicine, University of Pisa, Pisa, Italy

Giuseppe Vicidomini

Molecular Microscopy and Spectroscopy, IIT, Genoa, Italy

Organizing committee: P. Bianchini, A. Diaspro, M. Salvatori

Monday 27th



Camera di Commercio
Genova

Palazzo Tobia Pallavicino
City Center - Via Garibaldi 4, Genova

Keynote Lectures

13.45 registration

14.00 *Welcome and Opening remarks:*
Paolo Bianchini and Alberto Diaspro
Luigi Attanasio, *Chamber of Commerce President*

14.05 Martin Oheim
Fluorescence and SHG imaging with a single-spinning disk
two-photon excitation microscope

14.45 Dario Polli
Vibrational microscopy for label-free chemical identification of
molecules

15.25 Adi Salomon
A Colour-Encoded Nanometric Ruler for Axial Super-Resolu-
tion Microscopies

16.05 *coffee break*

16.30 Irene Farabella
Investigating 3D genome organisation at the nanoscale with
Seq-OligoSTORM

17.10 Pietro Delcanale
Single-Molecule Imaging with Reversible Binding Probes

17.50 Francesca Cella Zancacchi
Quantitative insights and molecular determinants mapping by
single molecule localization microscopy

18.30 Ranieri Bizzarri
The fair switch project: how single molecules reveal the
nanoscale of the cell

19.10 Paolo Bianchini and Alberto Diaspro
Closing remarks

19.30 *Farewell, and social dinner only for registered
students and speakers*

Tuesday 28th

Istituto Italiano di Tecnologia, viaE. Melen 83B, Genova, Italy
Closed sessions for registered students

Fibonacci-Pitagora room (10th floor)

10.00 Peter Saggau. Acousto-optic devices in microscopy
10.40 Giuseppe Vicidomini. Super-resolution laser scanning microscopy
11.30 Group Picture (9th Floor)
12.30 LUNCH (canteen, 1st floor)
Hands-on *NIC@IIT, Nanoscopy and MMS labs (9th floor)*

	G1	G2	G3	G4	G5	G6	G7	G8
14.15 - 15.15	N1	N2	N3	N4	N5	N6	N7	N8
15.20 - 16.20	N10	N3	N2	N5	N1	N7	N6	N9
16.40 - 17.40	N3	N4	N1	N9	N7	N8	N5	N10
17.45 - 18.45	N4	N1	N6	N3	N8	N9	N10	N2

Wednesday 29th

	G1	G2	G3	G4	G5	G6	G7	G8
9.30 - 10.30	N5	N6	N7	N8	N9	N1	N4	N2
10.40 - 11.40	N6	N7	N8	N10	N9	N2	N1	N3
11.45 - 12.45	N8	N9	N10	N1	N3	N5	N2	N4
13.00 - 14.00	LUNCH (canteen, 1 st floor)							
14.15 - 15.15	N2	N8	N5	N1	N4	N7	N10	N6
15.20 - 16.20	N6	N2	N1	N8	N5	N3	N4	N7
16.40 - 17.40	N7	N1	N2	N4	N6	N10	N5	N8
17.40 - 18.40	N2	N1	N3	N5	N7	N8	N6	N10

Thursday 30th

	G1	G2	G3	G4	G5	G6	G7	G8
9.30 - 10.30	N1	N5	N10	N7	N8	N4	N9	N6
10.45 - 12.45	N10	N8	N9	N3	N1	N5	N6	N2
13.00 - 14.00	LUNCH (canteen, 1 st floor)							
14.15 - 16.15	N9	N7	N4	N6	N2	N10	N3	N5
16.40 - 18.40	N4	N6	N3	N7	N10	N2	N8	N5

Friday 1st

	G1	G2	G3	G4	G5	G6	G7	G8
9.30 - 10.30	N6	N4	N8	N2	N9	N1	N5	N7
10.45 - 12.45	N3	N10	N7	N2	N6	N9	N1	N4
13.00	Gabriele Galateri di Genola , IIT president			CLOSING REMARKS				
	LUNCH (canteen, 1 st floor)							