

Topics:

STORM (Stochastic Optical Reconstruction Microscopy)
MINFLUX (MINimal fluorescence photon FLUXes microscopy)
Confocal Laser Scaanning Microscopy
ISM (Image Scanning Microscopy)
2PEFM (Two-photon excitation fluorescence microscopy)
SHG (Second Harmonic Generation) microscopy
STED (STimulated Emission Depletion) microscopy
FLIM (Fuorescence 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
Ryu Nakamura, Paolo Bianchini, Mattia Pesce

N2: Nikon N-STORM
Martina Simeone, Chantal Usai, Vittorio Parenti

N3: Nikon A1MP spectral resonant and FLIM (by ISS)
Marco Scotto D'Abbusco, Mattia Donato

N4: Nikon JI
Giacomo Cozzi, Matteo Parri

N5: Genoa Instruments PRISM
Marco Castello, Federica Quici, Gioele Figus

N6: Correlative fluorescence - atomic force microscopy
Paolo Canepa, Andrea Lagomarsino, Claudio Canale

N7: Custom ISM for microscopy and spectroscopy
E. Slenders, L. Le, A. Bucci, S. Patil, G. Garre

N8: Sample Preparation and Expansion Microscopy
Michele Oneto, Hawraa Zbeeb

N9: Optics, label-free and quantum Imaging, Lab tour, Q&A
Nicolo Incardona, Gaytri Arya, Larbi Touijer, Peter Saggau

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

For IIT/SIOF/SIBPA/UNIGE members:

PhD students and junior postdocs: 190 €

Postdocs: 270 €

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

150 € each person (both PhD students and postdocs)

Companies: 600 €

Non member:

PhD students and junior postdocs: 250 €

Postdocs: 320 €

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



10th NIC@IIT Nanoscopy 2.0

PRACTICAL WORKSHOP on ADVANCED MICROSCOPY

1st to 5th of December 2025

nic.iit.it and mix.iit.it



Directors: Paolo Bianchini Alberto Diaspro

KEYNOTE SPEAKERS

Melike Lakadamyali

Dept. Physiology, University of Pennsylvania, Philadelphia, USA

Takahiro Deguchi

Cell Biology and Biophysics, EMBL, Heidelberg, Germany

Ryu Nakamura

Healthcare Business Unit, Nikon Corp., Tokyo, Japan

Ranieri Bizzarri

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

Francesca Cella Zanacchi

Dept. Physics, University of Pisa, Pisa, Italy

Vittoria Raffa

Dept. of Biology, University of Pisa, Pisa, Italy

Irene Farabella

Integrative Nuclear Architecture, IIT, Genoa, Italy

Giuseppe Vicidomini

Molecular Microscopy and Spectroscopy, IIT, Genoa, Italy

Peter Saggau

Nanoscopy, IIT, Genoa, Italy

Claudio Canale

Dep. Physics, University of Genoa, Genoa, Italy

Monday 1st



Camera di Commercio
Genova

Sala delle Grida, Palazzo della Borsa
City Center - Via XX Settembre 44, Genova

Keynote Lectures

13.30 registration

14.00 *Welcome,
Institutional greetings and Opening Remarks*

14.05 Melike Lakadamyali
Super-resolution imaging of chromatin in health and disease

14.45 Takahiro Deguchi
Single-Molecule Localization and MINFLUX Microscopy: From
Static Structures to Dynamic Protein Function

15.25 Ryu Nakamura
Efficient and quantitative imaging with NSPARC: best practices
and case studies

16.05 *coffee break*

16.30 Ranieri Bizzarri
The conceptual basis of single molecule imaging (with some
examples)

17.10 Francesca Cella Zanacchi
Advanced single-molecule super-resolution and its applica-
tions

17.50 Vittoria Raffa
Are microtubules the drivers of neuronal mechanotran-
sduction?

18.30 Paolo Bianchini and Alberto Diaspro
Closing remarks

19.00 Farewell with drinks and nibbles.
*An Italian-style aperitif that combines drinks with a light
dinner.
Only for registered students and speakers*

Tuesday 2nd



Istituto Italiano di Tecnologia, via E. Melen 83B, **Erzelli** district, Genova, Italy

Closed sessions for registered students

Conference room at GHT (12th floor)

9.50 Irene Farabella, Investigating 3D genome organisation at the nanoscale with Seq-OligoSTORM
10.30 Giuseppe Vicidomini. Super-resolution laser scanning microscopy with detector array
11.10 Peter Saggau. Acousto-optic devices in microscopy
11.50 Claudio Canale. Exploring Intermolecular Processes with Correlative AFM-STED Microscopy
12.30 Group Picture (9th Floor)
12.45 LUNCH (canteen, 1st floor)

Hands-on

NIC@IIT, Nanoscopy and MMS labs (9th floor)

	Group1	Group2	Group3	Group4	Group5
14.10 - 16.10	N2	N3	N4	N5	N6
16.10 - 16.40	coffee break				
16.40 - 18.40	N3	N4	N5	N6	N7

Wednesday 3th

	Group1	Group2	Group3	Group4	Group5
9.30 - 11.00	N4	N5	N6	N7	N8
11.00 - 11.20	coffee break				
11.20 - 12.50	N5	N6	N7	N8	N9
12.50 - 14.10	LUNCH (canteen, 1 st floor)				
14.10 - 16.10	N6	N7	N8	N9	N1
16.10 - 16.40	coffee break				
16.40 - 18.40	N7	N8	N9	N1	N2

Thursday 4th

	Group1	Group2	Group3	Group4	Group5
9.30 - 11.00	N8	N9	N1	N2	N3
11.00 - 11.20	coffee break				
11.20 - 12.50	N9	N1	N2	N3	N4
12.50 - 14.10	LUNCH (canteen, 1 st floor)				
14.10 - 16.10	N1	N2	N3	N4	N5
16.10 - 16.40	coffee break				
16.40 - 18.40	N2	N3	N4	N5	N1

Friday 5th

	Group1	Group2	Group3	Group4	Group5
9.30 - 11.00	N3	N4	N9	N6	N2
11.00 - 11.20	coffee break				
11.20 - 12.50	N4	N5	N1	N7	N9
13.00	CLOSING REMARKS				
LUNCH	(canteen, 1 st floor)				