ISTITUTO ITALIANO DI TECNOLOGIA

Camera di Commercio Genova

Società Italiana di Ottica e Fotonica

Società Italiana di Biofisica Pura e Applicata

THE FLUORESCENCE FOUNDATION

Italy BioImaging

Genoa Instruments

microscopy research technique

okolab

HAMAMATSU PHOTON IS OUR BUSINESS

COHERENT.

Nikon 100th anniversary

4th NIC@IIT Nanoscopy 2.0

PRACTICAL WORKSHOP on ADVANCED MICROSCOPY from the 27th of November to the 1st of December 2017

nic.iit.it and **mix.iit.it**

the Steering Committee:
A. Diaspro, P. Bianchini, F. Cella Zanacchi, G. Vicidomini, CJR Sheppard

KEYNOTE LECTURES open access session

Matthieu Dubreuil, University of Brest, France
Polarimetric methods for linear and nonlinear microscopy

Silvia Galiani, University of Oxford, UK
Exploring peroxisomes import process: an advance cellular microscopy study

Thomas Huser, University of Bielefeld, Germany
High resolution and high speed imaging of living cells by multimodal optical nanoscopy

Kseniya Korobchevskaya, Kennedy Inst. of Rheumatology, UK
Structured Illumination microscopy for live super-resolution imaging

Zeno Lavagnino, Washington University, US
diSPIM allows multidimensional characterisation of second messengers activity in intact islets of Langerhans

Emiliano Ronzitti, Paris Descartes University, France
Shaping the light for targeted interrogation of neural circuits

Peter Saggau, Allen Institute for Brain Science, USA
Scalable Approaches for Encoded Optical Imaging

Alberto Diaspro, Istituto Italiano di Tecnologia, Italy
The Extraordinary Microscope.

Courses:

	Suggested Tutorials	Hands on (at least)	Group
Confocal, ISM and STED	b., d., h.	N3, N5, N8, N9	G1, G2
STORM, d-STORM	a., e., h.	N1, N2, N6, N7	G3, G4
Live cell imaging	a., f., h.	N2, N4, N6, N7	G5
2-photon and FLIM/FRET	b., d., c., h.	N2, N3, N5, N9	G6
Fast volumetric imaging and particle tracking	a., c., g.	N1, N2, N6, N10	G7
Expansion Microscopy	b., d. f., h.	N4, N7, N8, N11	G8

Tutorials

a. Time lapse (widefield and TIRF), JOBS	**Mattia Pesce**
b. Spinning disk / Confocal, ISM	**Giuseppe Vicidomini**
c. Multiphoton, FLIM, FRET	**Luca Lanzanò**
d. STED, STED-FCS	**Silvia Galiani**
e. STORM, PALM, GSDIM	**Francesca Cella Zanacchi**
f. SIM	**Kseniya Korobchevskaya**
g. Fast volumetric imaging	**Marti Duocastella**
h. Sample preparation for super-resolution	**Luca Pesce**

Instruments - workstations

N1: Nikon multicolor 3D N-STORM
N2: IIT custom SPIM, IML-SPIM
N3: IIT custom gSTED, ISM - GenoaInstruments
N4: Nikon N-SIM
N5: Nikon A1 spectral confocal
N6: Nikon Time lapse, JOBS
N7: Fast Confocal Nikon spinning disk
N8: IIT custom 2C 3D pulsed STED
N9: Nikon A1R MP, ISS fast FLIM and FCS
N10: Particle tracking
N11: Expansion Microscopy

Registration Fees:

For registration, visit nic.iit.it or mix.iit.it

Type	Fees
PhD student	180 €
Post Doc	250 €
Professionals or companies	600 €
IIT/SIOF/SIBPA/UNIGE members:	
PhD students and junior Post Doc	120 €
Post Docs	200 €

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

Monday 27th

Open access session,
Sala delle Grida - City Center - Piazza De Ferrari, Genova

14.00 Paolo Bianchini & Alberto Diaspro,
Istituto Italiano di Tecnologia, Italy
Welcome and Opening remarks

14.15 Peter Saggau,
Allen Institute for Brain Science, USA
Scalable Approaches for Encoded Optical Imaging

14.45 Emiliano Ronzitti,
Paris Descartes University, France
Shaping the light for targeted interrogation of neural circuits

15.15 Thomas Huser,
University of Bielefeld, Germany
High resolution and high speed imaging of living cells by multimodal optical nanoscopy

15.45 Kseniya Korobchevskaya,
Kennedy Inst. of Rheumatology, UK
Structured Illumination microscopy for live super-resolution imaging

16.15 coffee break

16.45 Matteo Bardelli,
Physik Instrumente, Italy
Piezo Technology for Microscopy

17.00 Silvia Galiani,
University of Oxford, UK
Exploring peroxisomes import process: an advance cellular microscopy study

17.30 Zeno Lavagnino,
Washington University, US
diSPIM allows multidimensional characterisation of second messengers activity in intact islets of Langerhans

18.00 Matthieu Dubreuil,
University of Brest, France
Polarimetric methods for linear and nonlinear microscopy

18.30 Alberto Diaspro,
Istituto Italiano di Tecnologia, Italy
The Extraordinary Microscope

20.00 Social Dinner, for registered students and speakers

Tuesday 28th

Closed sessions for registered students
Istituto Italiano di Tecnologia, via Morego 30, Genova, Italy

	HACK room,	MONTALCINI room
09.30 - 10.30	a. (Time lapse)	b. (confocal)
10.30 - 11.30	e. (STORM)	d. (STED)
11.30 - 12.30	f. (SIM)	c. (FLIM, FRET)
12.30 - 14.00	LUNCH (at IIT auditorium break area, 1st floor)	
14.00 - 15.00	g. (Fast volumetric imaging)	

	G1	G2	G3	G4	G5	G6	G7	G8
15.30 - 17.30	N9	N1	N4	N7	N2	N5	N6	N11

Wednesday 29th

	HACK room
09.30 - 10.30	h. (Sample preparation)

	G1	G2	G3	G4	G5	G6	G7	G8
10.30 - 12.30	N8	N5	N10	N4	N3	N2	N7	N1
12.30 - 14.00			LUNCH	(at IIT auditorium break area, 1st floor)				
14.00 - 16.00	N2	N9	N8	N10	N1	N6	N4	N11
16.30 - 18.30	N7	N8	N6	N9	N10	N1	N2	N4

Thursday 30th

	G1	G2	G3	G4	G5	G6	G7	G8
09.30 - 11.30	N4	N7	N2	N5	N6	N9	N1	N8
12.00 - 14.00			LUNCH	(at IIT auditorium break area, 1st floor)				
14.00 - 16.00	N3	N4	N1	N6	N7	N8	N10	N5
16.30 - 18.30	N5	N3	N7	N1	N4	N10	N9	N11

Friday 1st

	G1	G2	G3	G4	G5	G6	G7	G8
09.30 - 11.30	N6	N10	N5	N2	N9	N3	N8	N7