

X SCHOOL OF PURE AND APPLIED BIOPHYSICS

**Time resolved spectroscopic methods
in biophysics**

Organised by:

IVSLA

ISTITUTO VENETO DI SCIENZE LETTERE ED ARTI

SIBPA

SOCIETÀ ITALIANA DI BIOFISICA PURA E APPLICATA

ISTITUTO VENETO DI SCIENZE LETTERE ED ARTI

Venice,– Campo Santo Stefano

January 16 - January 20, 2006

SCIENTIFIC COORDINATORS

GIOVANNI GIACOMETTI

Istituto Veneto di Scienze Lettere ed Arti

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AIM OF THE SCHOOL AND PROGRAM

The School promotes deepening of biophysical topics selected in the area of contemporary research. The selected subjects will draw young researcher's attention on themes of frontier research which are considered of relevant scientific and educational impact. The School will be held in the seat of the Istituto Veneto di Scienze, Lettere ed Arti, in the historical centre of Venice.

The School, in its tenth year of activity, will be on: **Time resolved spectroscopic methods in biophysics** and will deal with the following topics:

- Time resolved vibrational spectroscopies: 2D IR fs spectroscopy
- Time resolved FTIR, Time resolved Raman spectroscopy
- Time resolved absorbance spectroscopies: fs pump-probe vis and IR spectroscopy, nanosecond laser flash photolysis.
- Time resolved photothermal methods.
- Time resolved fluorescence spectroscopies: Fluorescence Correlation Spectroscopy, Fluorescence Lifetime Imaging, Single Molecule Spectroscopy, Singlet Oxygen Luminescence

List of lecturers

GIOVANNI BISCOTTI, Becker & Hickl
FLIM by Multi-Dimensional TCSPC

GIULIO CERULLO, Politecnico di Milano
Broadband transient absorption spectroscopy with sub-20-fs time resolution

ROLF DILLER, University of Kaiserslautern
Transient absorption of electronic and vibrational states

ALESSANDRO FEIS, Università di Firenze
Time resolved photoacoustics

DICK FIELDING, Applied Photophysics
ns Laser Flash Photolysis and Stopped-Flow: instrumentation and applications

PAOLO FOGGI, LENS, Firenze
fs 2D-IR spectroscopy

THOMAS GENSCH, Forschungszentrum Jülich
Fluorescence Lifetime Imaging: Biological Applications

INGO GREGOR, Forschungszentrum Jülich
Fluorescence Correlation Spectroscopy

JOACHIM HEBERLE, Forschungszentrum Jülich
Time-resolved FT-IR spectroscopy of proteins

JOHAN HOFKENS, Catholic University of Leuven
Single Molecule Spectroscopy

BEN KRÄMER, Picoquant
Instruments for time-resolved fluorescence spectroscopy

ALAN MC KIERNAN ANDOR, LOT Oriel
Recent advances in ICCD technology for time resolved spectroscopy

SANTI NONELL MARRUGAT Universitat Ramon Llull, Barcelona
Time-resolved singlet oxygen spectroscopy: what's new?

DANIEL MURGIDA, Technical University, Berlin
Basis and biophysical applications of Raman spectroscopy

DIEGO SALI, Bruker
step-scan FTIR instrumentation

MARTIN TEWINKEL, Olympus Life and Material Science Europa GmbH
Confocal spectroscopy and life time imaging - Olympus FluoView FV1000 upgraded with PicoQuant TCSPC electronics

CRISTIANO VIAPPIANI, Università di Parma
ns laser flash photolysis

Timetable	Monday January 16	Timetable	Tuesday January 17	Wednesday January 18	Thursday January 19	Friday January 20
9.30-10.00	In Memoriam of Gianfranco Menestrina (F. Gambale)	9.30-10.15	G. Cerullo	J. Hofkens	M. Tewinkel	C. Viappiani
10.00-10.45	J. Heberle	10.15-11.00	R. Diller	J. Hofkens	T. Gensch	A. Mc Kiernan
10.45-11.30	D. Murgida					
11.30-12.00	<i>Coffee break</i>	11.00-11.30	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>
12.00-12.45	D. Murgida	11.30-12.15	D. Sali	B. Krämer	G. Biscotti	D. Fielding
12.45-13.30	P. Foggi	12.15-13.00	A. Feis	A. Feis	I. Gregor	C. Viappiani
<i>Lunch</i>		<i>Lunch</i>				
16.00-17.00	J. Heberle	16.00-17.00	G. Cerullo		S. Nonell	
17.00-18.00	P. Foggi	17.00-18.00	R. Diller		I. Gregor	