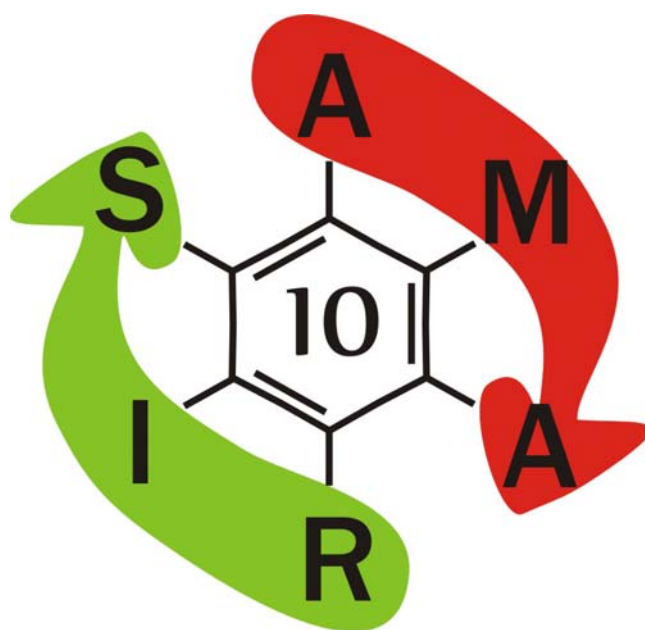




Laboratoire de Photonique Quantique et Moléculaire (LPQM)

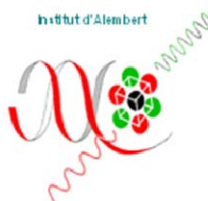
*Advances in Molecular Nonlinear Optics :
Information Technology and Life Sciences*

AMARIS 10

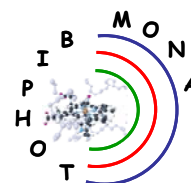


May 24th – May 28th 2010 ENS Cachan - FRANCE

We thank the following sponsors for their support:



Erasmus Mundus



Pre -Program

(Italics : tentative titles)

Monday May 24th 2010

Welcome reception

19 h 30 Welcome reception at restaurant "L'Ondine" 6 avenue de l'Europe in Cachan (at a walking distance from the Cachan Campus).

Tuesday, May 25th, 2010

Opening session : Welcome adresses

Jean-Yves MERINDOL, *Director, ENS Cachan*

8 h 45 – 9 h 15 Xavier CHAPUISAT, *President of PRES UNIVERSUD Paris (to be confirmed)*

Christian COLLEX, *RTRA Triangle de la Physique (to be confirmed)*

Opening remarks: Isabelle LEDOUX-RAK

Session 1 : Light-Matter Interactions - Fundamental aspects

Chairperson:

- 9h15 – 9h45 **Robert SILBEY** - Energy Transfer, Coherence and Decoherence in Molecular Aggregates
Energy Transfer, Coherence and Decoherence in Molecular Aggregates
- 9h45 – 10h15 **Shaul MUKAMEL** - Quantum Transport Effects in Nonlinear Spectroscopy of
Photosynthetic Light Harvesting Complexes
- 10h15– 10h45 **Antoni MITUS** - Monte-Carlo modelling of optical non linear effects in liquid crystals
- 10h45 – 11h15 *Coffee break*

Session 2 : Devices 1 - Lasers and OLED's

Chairperson:

- 11h15 – 11h45 **Jochen FELDMANN** : Optoelectronics of organic materials
- 11h45 – 12h15 **Ifor SAMUEL** : Organic semiconductors and biophotonics
- 12h15 – 12h35 *Contributed talk 1*
- 12h35 – 12 h 55 *Contributed talk 2*
- 12h55 – 14h30 *Lunch (hall Villon)*

Poster Session

- 12h55 – 14h30 Poster Session 1 (Hall Villon)

Session 3 : Nanobiophotonics 1

Chairperson:

- 14h30 – 15h00 **Charles SHANK** - Novel Approaches to High Resolution Bioimaging
- 15h00 – 15h30 **Manuel JOFFRE** - Femtosecond infrared spectroscopy in hemoproteins using chirped-pulse up-conversion
- 15h30 – 15h50 *Contributed talk 1*
- 15h50 – 16h10 *Contributed talk 2*
- 16h10 – 16h40 *Coffee break*

Session 4 : Molecular Materials - crystalline structures

Chairperson:

- 16h 40 – 17h 10 **Serge GAUVIN** - Growth and characterization of organic crystalline thin films for photonics
- 17h 10 – 17h 40 **José Antonio PAIXAO** - New development in molecular crystallography for optical applications
- 17h 40 – 18h 00 *Contributed talk 1*
- 19h 15 – 21h 00 *Dinner (hall Villon)*

Wednesday, May 26th, 2010

Session 5 : Nonlinear Microscopy 1

Chairperson:

- 9h00 – 9h30 **Michel ORRIT** - Nano-Optics : a Window on Structure and Dynamics at Molecular Scales
9h30 – 10h00 **Chih-Kung LEE** - *Organic/Metal Nanostructures for Surface Plasmonic Devices*
10h00 – 10h20 *Contributed talk 1*
10h20 – 10h40 *Contributed talk 2*
10h40 – 11h10 *Coffee break*

Session 6 : Polymers and Liquid crystals for Photonics

Chairperson:

- 11h10 – 11h40 **Mark KUZYK** - *Polymeric structures for optical signal processing*
11h40 – 12h10 **George STEGEMAN** - Nonlinear Optics of Conjugated Polymers and Symmetric Linear Molecules Revisited
12h10 – 12h40 **Francesco SIMONI** : Nonlinear Optics in Liquid Crystals: from molecular reorientation to optical trapping
12h40 – 13h00 *Contributed talk 1*
13h00 – 14h30 *Lunch (hall Villon)*

Poster Session

- 13h00 – 14h35 Poster Session 2 (Hall Villon)

Session 7 : Molecular Engineering for Photonics

Chairperson:

- 14h 30 – 15h 00 **Jean-François NICOUD** - *New avenues of molecular engineering for photonics and biophotonics*
15h 00 – 15h 30 **Hubert LE BOZEC** - *Design and synthesis of multifunctional metal complexes for nonlinear optics*
15h 30 – 15h 50 *Contributed talk 1*
15h 50 – 16h 10 *Coffee break*

Session 8 : Devices 2

Chairperson:

- 16h 10 – 16h 40 **Philip RUSSELL** - Nanoliter photochemistry and single particle guidance in photonic crystal fibers
16h 40 – 17h 10 **Francesco MICHELOTTI** - Bloch surface waves propagation in amorphous silicon nitride photonic crystals for biosensing applications
17h 10 – 17h 30 **Dan OSTROWSKY** : *Nonlinear phenomena in waveguided media (to be confirmed)*
17h 30 – 17h 50 *Contributed talk 1*

Poster Session and Special Event

- 18h 50 – 19h 30 Poster Session 3 (Institut d'Alembert)
Special Event : Dedication of the Conference Hall of Institut d'Alembert to Daniel CHEMLA
19h 35 – 21h00 *Dinner (hall Villon)*

Thursday, May 27th, 2010

Session 9 : Nonlinear Microscopy 2 (Special Session Weizmann Institute/CNRS)

Chairperson: Ron NAAMAN

- 9h00 – 9h30 **Yehiam PRIOR** - Laser Induced Molecular Alignment – Small and Large, Slow and Fast
9h30 – 10h00 **Dan ORON** - Nanoparticle Labels for Coherent Mutiphoton Microscopy
10h00 – 10h30 **Yaron SILBERBERG** - *Quantum Coherent Control for Nonlinear Spectroscopy and Microscopy*
10h30 – 10h50 *Contributed talk 1*
Coffee break

Session 10 : Nanobiophotonics 2 (Special Session Weizmann Institute/CNRS)

Chairperson:

- 10h50 – 11h20 **Avi MINSKY** - *DNA Organization*
11h30 – 12h00 **Sophe BRASSELET** - *New developments in molecular nano- and bio-photonics*
12h00 – 12h20 *Contributed talk 1*
12h20 – 12h 40 *Contributed talk 2*
12h40 – 14h15 *Lunch (hall Villon)*

Session 11 : Pedagogical Issues

Chairperson: Michel

- 14h15 – 14h45 **Hung-Chih KAN** - The current status and the development of the technology enabled active learning (TEAL) for general physics teaching at National Chung Cheng University
14h45 – 15h15 **Nicole OSTROWSKY** - *Training science in a multidisciplinary perspective*
15h15 – 16h00 Round Table - Discussions
10h00– 16h30 *Coffee break*

Session 12 : Science and Art

Chairperson:

- 16h30 – 17h10 **Hervé THIS** : *Molecular gastronomy*
17h10 – 17h40 **Damien SCHOEVAERT**: *Genesis of forms*
17h40 – 18h10 **Bernard VALEUR** : *Fluorescence between Science and Art (to be confirmed)*

Session 13 : Women in Science

Chairperson:

- 18h10 – 18h40 **Susan SILBEY** : *Sociological Aspects*
18h40 – 19h10 **Marie-Solange TISSIER (to be confirmed)**: *Women in Engineering and Management*
19h10 – 19h30 **Discussion**

19h40 – 22 h 00 *Special Joseph Z'YSS Session and gala dinner*

Friday, May 28th, 2010

Session 14 : Technologies

Chairperson:

- 9h00 – 9h30 **Hartmut HILLMER** - High vertical resolution 3D Nanolmprint Technology and its application in optical nanosensors
- 9h30 – 10h00 **Chia Chen HSU** - Fabrication of polymeric nano/micro structures for optoelectronics and Raman sensing applications
- 10h00 – 10h30 **Ron NAAMAN** : Magneto-lithography: Patterning beyond flat and uniform surfaces
- 10h30 – 10h50 *Contributed talk 1*
- 10h50 – 11h 20 *Coffee break*

Session 15 : Intermolecular Interactions

Chairperson:

- 11h20 – 11h50 **Gion CALZAFERRI** - What can we gain by inserting molecules in 1D nanochannels
- 11h50 – 12h20 **Shammai SPEISER** - Molecular Scale Logic Circuits Utilizing Nonlinear Optical Absorption and Intramolecular Electronic Energy Transfer
- 12h20 – 12h40 *Contributed talk 1*
- 12h40 – 13h 00 *Concluding Remarks*
- 12h40 – 14h15 *Lunch (hall Villon)*