

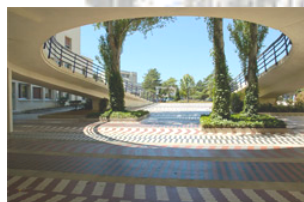
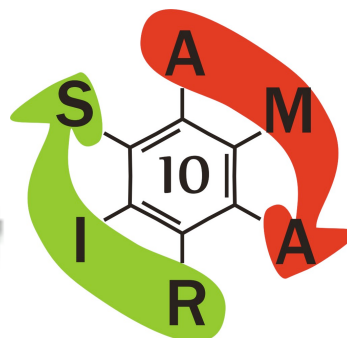
AMARIS'10 - International conference
May 24 - 28, 2010



Advances in Molecular Nonlinear Optics

Information Technology and Life Sciences

A tribute to Joseph Zyss for his 60th birthday



**Laboratoire de Photonique Quantique et Moléculaire,
Institut d'Alembert, Ecole Normale Supérieure de Cachan, France**



AIM & SCOPE

This Conference will present the most recent developments of Molecular Nonlinear Optics, from macroscopic materials to nanostructures and single objects, in a widely opened pluridisciplinary spirit where the various topics to be addressed will act as meeting points between molecular photonics and related activities in chemistry, biology and information technologies. Besides fundamental aspects of nonlinear, quantum physics and nonlinear dynamics, various sessions will be devoted to molecular material science and functional chemistry, bio-imaging and nanolabels, structural studies of cell nucleus and proteins, membrane potential, molecular optoelectronic devices, or sensors and biosensors.

This conference also celebrates the 60th birthday of professor Joseph Zyss for his pioneering role in Molecular Nonlinear Optics.

Specific sessions will provide an overview of the activities and challenges of molecular nonlinear optics, to be played within a three-dimensional frame :

1. *Research activities and conditions for the development of the domain at the best international level in a cooperative spirit.*
2. *Teaching and pedagogical challenges towards a pluridisciplinary training.*
3. *Potential for industrial applications actual implementations.*

CONFERENCE TOPICS

- Molecular and material engineering for nonlinear optics : from molecular synthesis to advanced material design.
- Theoretical aspects of light-matter interactions and quantum chemistry.
- Nano- and bio-photonics.
- Spectroscopy and manipulation of single objects.
- Novel technologies for nano-patterning, nano-manipulation and nano-functionalization.
- Devices for optical signal processing.
- Chemical and biochemical sensors based on molecular materials in a microfluidic environment.

Four special sessions will be devoted to :

- Science and Art.
- Pedagogical issues towards a multidisciplinary education.
- Women in Science and Technology
- Free session with contributions from prof. Zyss students (present and past) and colleagues.

INVITED SPEAKERS

- | | |
|---|---|
| 1. Sophie Brasselet (Marseille, France) | 19. Michel Orrit (Leiden Univ., The Netherlands) |
| 2. Gion Calzaferri (Bern, Switzerland) | 20. Nicole Ostrowski (Nice, France) |
| 3. Jochen Feldmann (Münich, Germany) | 21. José Antonio Paixao (Coimbra, Portugal) |
| 4. Serge Gauvin (Moncton Univ., Canada) | 22. Yehiam Prior (Weizmann Institute, Israel) |
| 5. Hartmut Hillmer (Kassel, Germany) | 23. Philip Russell (Erlangen, Germany) |
| 6. Chia Chen Hsu (NCCU, Taiwan) | 24. Ifor Samuel (St Andrews, UK) |
| 7. Manuel Joffre (Palaiseau, France) | 25. Charles Shank (HHMI, Janelia Farm, USA) |
| 8. Hung-Chil Kan (NCCU, Taiwan) | 26. Yaron Silberberg (Weizmann Institute, Israel) |
| 9. Mark Kuzyk (Washington Univ., USA) | 27. Robert J. Silbey (MIT, USA) |
| 10. Hubert Le Bozec (Rennes, France) | 28. Francesco Simoni (Univ. delle Marche, Italy) |
| 11. Chih-Kung Lee (NTU, Taiwan) | 29. Shammai Speiser (Technion Institute, Israel) |
| 12. Francesco Michelotti (La Sapienza, Italy) | 30. George Stegeman (CREOL, Florida, USA) |
| 13. Abraham Minsky (Weizmann Institute, Israel) | 31. Hervé This (INRA, Paris, France) |
| 14. Antoni Mitus (WUT, Poland) | 32. Bernard Valeur (ENS Cachan, France) |
| 15. Shaul Mukamel (Irvine, USA) | 33. Dan Ostrowski (Nice, France) |
| 16. Ron Naaman (Weizmann Institute, Israel) | 34. Muriel Touati (France-Technion Foundation) |
| 17. Jean-François Nicoud (Strasbourg, France) | 35. Marie-Solange Tissier (Paris, France) |
| 18. Dan Oron (Weizmann Institute, Israel) | 36. Damien Schoevaert (Paris, France) |

CONFERENCE ORGANIZATION

Conference Chair:

Isabelle Ledoux-Rak, LPQM, École Normale Supérieure de Cachan, France

Co-chairs:

Fabrice Charra, CEA – IRAMIS, Gif-sur-Yvette, France

Cédric Mayer, Institut Lavoisier, Université de Versailles, France

Secretary: Ginette Puyhaubert (LPQM, ENS de Cachan)

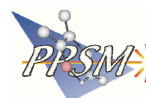


International advisory committee:

- Robert J. Silbey (MIT, USA)
- Michel Orrit (Leiden, Netherlands)
- Ifor Samuel (St Andrews, UK)
- Philip Russell (Max Planck Institute, Germany)
- Yehiam Prior (Weizmann Institute, Israel)
- Jochen Feldmann (Ludwig, Germany)
- Shammai Speiser (Technion Institute, Israel)
- Chih-Kung Lee (NTU, Taiwan)
- Antoni Mitus (Wroclaw, Poland)
- Shaul Mukamel (Irvine, USA)
- Richard Chang (Yale Univ., USA)
- Jean-François Nicoud (Strasbourg, France)
- Fabrice Charra (CEA, France)
- Cédric Mayer (UVSQ, France)

Local organizing committee:

- Dominique Chauvat
- Camille Delezoide
- Iryna Gozhyk
- Ngoc Diep Lai
- Mélanie Lebental
- Isabelle Ledoux-Rak
- Chi-Thanh Nguyen
- Rachel Méallet-Renault
- Keitaro Nakatani
- Bianca Sclavi
- Bernard Journet
- Sophie Brasselet
- Corinne Brachet-Ducos
- Marjolaine Vernier



VENUE

Amphithéâtre Marie Curie
Ecole Normale Supérieure de Cachan
61 av. du Président Wilson, 94235 Cachan – France

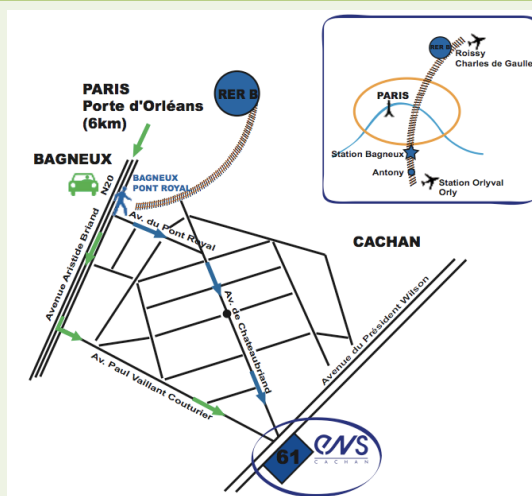
CONTACT

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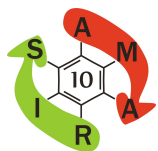
Email: AMARIS10@ens-cachan.fr

Website: <http://tinyurl.com/AMARIS2010>



SPONSORS

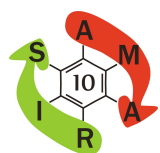




List of sessions

Chronological order

- Session 1:** Light-Matter Interactions - Fundamental aspects
- Session 2:** Nonlinear Microscopy 1
- Session 3:** Nano(bio)photonics 1
- Session 4:** Molecular Materials - Crystalline structures
- Session 5:** Devices : Organic Laser/OLED
- Session 6:** Polymers for Photonics
- Session 7:** Molecular Engineering for Photonics
- Session 8:** Devices and Liquid crystals
- Session 9:** Women in Science and Technology
- Session 10:** Nonlinear Microscopy 2 (Weizmann Institute/CNRS)
- Session 11:** Nano(bio)photonics 2 (Weizmann Institute/CNRS)
- Session 12:** Pedagogical Issues
- Session 13:** Science and Art
- Session 14:** Special Joseph Zyss session
- Session 15:** Biomolecules and Intermolecular Interactions
- Session 16:** Technologies
- Session 17:** Novel materials and devices



List of invited talks

Chronological order

Tuesday, May 25th 2010

- | | | |
|---------------------|---------|--|
| Robert SILBEY | (S1-I1) | Energy transfer, coherence and decoherence in molecular aggregates |
| Shaul MUKAMEL | (S1-I2) | Quantum transport effects in nonlinear spectroscopy of photosynthetic light harvesting complexes |
| Michel ORRIT | (S2-I3) | Optical detection of single non-fluorescent objects |
| Jochen FELDMANN | (S2-I4) | Nano-plasmonics with biomolecules |
| Charles SHANK | (S3-I5) | Novel approaches to high resolution bioimaging |
| Manuel JOFFRE | (S3-I6) | Femtosecond infrared spectroscopy in hemoproteins using chirped-pulse up-conversion |
| Sophie BRASSELET | (S3-I7) | New developments in molecular nano- and bio-photonics using polarized nonlinear microscopy |
| Serge GAUVIN | (S4-I8) | Strong intensification of parametric fluorescence inside microcavities: Effect of optical confinement on vacuum field fluctuations |
| José Antonio PAIXAO | (S4-I9) | New development in molecular crystallography for optical applications |

Wednesday, May 26th 2010

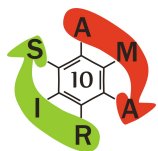
- | | | |
|----------------------|----------|--|
| Ifor SAMUEL | (S5-I10) | Light-emitting organic semiconductors |
| Mark KUZYK | (S6-I11) | The future: smart polymeric materials |
| George STEGEMAN | (S6-I12) | Nonlinear optics of conjugated polymers and symmetric linear molecules revisited |
| Jean-François NICOU | (S7-I13) | New avenues of molecular engineering for photonics and biophotonics |
| Hubert LE BOZEC | (S7-I14) | Molecular engineering of metal-based chromophores for nonlinear optics |
| Philip RUSSELL | (S8-I15) | Nanoliter photochemistry and single particle guidance in photonic crystal fibers |
| Francesco MICHELOTTI | (S8-I16) | Bloch surface waves propagation in amorphous silicon nitride photonic crystals for biosensing applications |
| Francesco SIMONI | (S8-I17) | Nonlinear optics in liquid crystals: from molecular reorientation to optical trapping |
| Muriel TOUATY | (S9-I18) | Living as a woman in a scientific career |
| Marie-Paule TEULADE | (S9-I19) | Women in Science : facts and figures |

Thursday, May 27th 2010

- | | | |
|-------------------|-----------|---|
| Yehiam PRIOR | (S10-I20) | Laser induced molecular alignment – small and large, slow and fast |
| Yaron SILBERBERG | (S10-I21) | High-NOON states by interfering classical and quantum light |
| Abraham MINSKY | (S11-I22) | Lesion-induced pairing of sister chromatids enables homologous repair of DNA breaks |
| Dan ORON | (S11-I23) | Nanoparticle labels for coherent multiphoton microscopy |
| Hung-Chih KAN | (S12-I24) | The current status and the development of the technology enabled active learning (TEAL) for general physics teaching at National Chung Cheng University |
| Nicole OSTROWSKY | (S12-I25) | From doing Science to stimulating future « Scientists » |
| Damien SCHOEVAERT | (S13-I26) | Genesis of forms |
| Bernard VALEUR | (S13-I27) | Colours and sounds : from science to Art |
| Hervé THIS | (S13-I28) | Molecular Gastronomy is on the science side... and the only bridge toward culinary art is technology |

Friday, May 28th 2010

- | | | |
|-----------------|-----------|---|
| Shammi SPEISER | (S15-I29) | Molecular scale logic circuits utilizing nonlinear optical absorption and intramolecular electronic energy transfer |
| Antoni MITUS | (S15-I30) | Electric field octupoling in two dimensions: concepts, models and Monte Carlo simulations |
| Chia Chen HSU | (S16-I31) | Fabrication of polymeric nano/micro structures for optoelectronics and Raman sensing applications |
| Hartmut HILLMER | (S16-I32) | High vertical resolution 3D nanoimprint technology and its application in optical nanosensors |
| Ron NAAMAN | (S16-I33) | Magneto-lithography: Patterning beyond flat and uniform surfaces |
| Gion CALZAFERRI | (S17-I34) | What can we gain by inserting molecules in 1D nanochannels |
| Dan OSTROWSKY | (S17-I35) | Guided wave optics for long distance quantum communications |



List of oral communications

Chronological order

Tuesday, May 25th 2010

Patrick Sebbah	(S1-O1)	Multiple scattering of light and speckle instabilities in nonlinear disordered media
Henri Benisty	(S1-O2)	Dark modes : a periodic multimode waveguide perspective
Timothée Toury	(S2-O3)	New non centrosymmetric schemes for SHG of metallic nanoparticles
Jean-Pierre Galaup	(S2-O4)	Trapping, manipulation and rapid rotation of NBD-C8 fluorescent single crystals in optical tweezers
David Gachet	(S2-O5)	Background-free nonlinear Raman microscopy and spectroscopy at interfaces
François Hache	(S3-O6)	Conformational dynamics in biomolecules studied by time-resolved circular dichroism
Hervé Rigneault	(S3-O7)	Dielectric microspheres to enhance local and remote fluorescence correlation spectroscopy measurements
Gabriel Y Sirat	(S4-O8)	Organic crystals: a reflection on a potential path to industrial applications in linear optics
Guillermo Martin	(S4-O9)	Integrated Optics, Interferometry and Active Devices for Astronomy

Wednesday, May 26th 2010

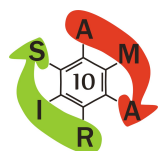
Mahmoud Chakaroun	(S5-O10)	Thresholdless approach of Organic Laser Diode
Djellali Nadia	(S5-O11)	Influence of nanoscale corner quality on the emission properties of square shaped organic microlasers
Rozenn Piron	(S5-O12)	Monolithic 1.59 μm InAs/InP quantum dash passively mode-locked lasers
Jian Hung Lin	(S6-O13)	Investigations of isotropic photonic bands of circular photonic crystals in silicon-on-insulator slab by surface coupling reflectivity technique
Fabienne Merola	(S6-O14)	Needs and strategies for improving GFP photophysics
Quentin Bellier	(S7-O15)	Design of efficient near-infrared dyes for nonlinear optics: towards optical limiting applications at telecommunication wavelengths
Etienne Brasselet	(S8-O16)	Singular nonlinear optics of liquid crystals

Thursday, May 27th 2010

Marc Guillon	(S10-O17)	Resonant locking of the size of an optically tweezed droplet
M.-P. Teulade-Fichou	(S10-O18)	Vinyl-triphenylamines: new DNA on/off probes for two-photon microscopy
Sébastien Bidault	(S11-O19)	Bottom-up synthesis of plasmon-based optical antennas
François Doré	(S11-O20)	New prospects for nano-connections in photonics

Friday, May 28th 2010

Alla Kress	(S15-O21)	Orientational behavior of rigidly labeled MHC Class I molecules in living cells
Bouchta Sahraoui	(S15-O22)	Nonlinear optical response of orthogonal Pyrrolo-tetrathiafulvalene derivatives
Benoît Boulanger	(S16-O23)	Triple photons : a new challenge for parametric nonlinear crystal optics
Nicolas Izard	(S16-O24)	Photonics based on carbon nanotubes
M.-C. Schanne-Klein	(S17-O25)	Nonlinear optical imaging of collagen liquid crystals
N. B. Plougonven	(S17-O26)	"Guidonics" – Functionalized waveguide arrays for all optical control of guided light on chip

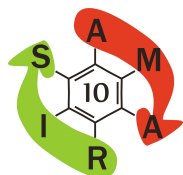


List of posters

Alphabetical order

Tuesday (25th), Wednesday (26th), and Thursday (27th), May 2010

- | | | |
|------|------------------------|---|
| P1. | Abdallah Slablab | Efficient Second-harmonic generation from a single Gold dimer |
| P2. | Anu Anu | Enhancement of Second Harmonic Generation of Stilbazolium Dyes by Covalent Linkage with Gold Nanoparticles |
| P3. | Bassam Hajj | Electro-optical microscopy: investigation of Pockels effect at local scale |
| P4. | Chawki Awada | Short-range plasmon guides, resonators and antennas imaged by non-linear photoemission electron microscopy |
| P5. | Chi Thanh Nguyen | High-performance polymeric modulators for Optical communications realized with a commercial side-chain DR1-PMMA electro-optic copolymer |
| P6. | Chih-Hsiang Sung | Detection of fluorescence nano-objects by the dual-channel radially-polarized surface plasmon microscopy |
| P7. | Christophe Galindo | Copper(I)-catalyzed Huisgen 1,3-dipolar azide-alkyne cycloaddition for the synthesis of nonlinear electro-optic copolymers |
| P8. | Fabiana Munhoz | Polarization-Resolved Coherent Anti-Stokes Raman Scattering |
| P9. | Ludovic Caillat | Rare earth doped nanoparticles for multiphoton microscopy |
| P10. | François Gourdon | Study of two-dimensional photonic crystals microcavity for Organic laser |
| P11. | Germain Metgé | Optimisation of fluorescent DNA labels for two-photon microscopy |
| P12. | Hadi Rabbani-Haghighi | Vertical external cavity surface-emitting organic laser (vecsol) |
| P13. | Iryna Gozhyk | Red fluorescent emitter with reduced quenching for OLEDs applications |
| P14. | Ivan Berline | Mastering molecular organization at the nanoscale for localized second harmonic generation |
| P15. | Jacob Szeftel | Revisiting the theory of second harmonic generation |
| P16. | Jean-Sébastien Lauret | Energy transfer in functionalized Carbon Nanotubes |
| P17. | Julien Massin | Synthesis of new nonlinear probes for cells membrane imaging |
| P18. | Marcin Zielinski | Nano-engineering of Single Quantum Dot Second-Order Nonlinearity via Control of Size, Shape and Material |
| P19. | M.-C. Schanne-Klein | Nonlinear optical response of the collagen triple hélix |
| P20. | Michel Dumont | Revisiting the theory of All-optical poling in Organic Materials |
| P21. | Mickaël Busson | Scattering spectroscopy of gold nanoparticle dimers assembled on DNA |
| P22. | Mohamed Lazoul | Single photon source based on nonlinear photonic crystal |
| P23. | Pedro S. Pereira Silva | Optical properties from crystallography data - extending the applicability of the oriented gas Model |
| P24. | Richard Hostein | Quantification of the enhancement factor for Surface-Enhanced Raman Scattering (SERS) on deterministic metallic nanostructures |
| P25. | Ryohei Yasukuni | Enhancement of excimer emission by single metal nanoparticle |
| P26. | Sergii Lozenko | Organic laser microcavities as a sensing Platform |



AMARIS'10 - International conference, May 24 - 28, 2010

Advances in Molecular Nonlinear Optics

Information Technology and Life Sciences

PROGRAMME

Monday, 24 th	Tuesday, 25 th	Wednesday, 26 th	Thursday, 27 th	Friday, 28 th
	8:40-9:00 Welcome address			
	9:00-10:40 - Talks	9:00-10:30 - Talks	8:40-10:20 - Talks	9:00-10:40 - Talks
	10:40-11:00 - Coffee break	10:30-10:50 - Coffee break	10:20-10:40 - Coffee break	10:40-11:00 - Coffee break
	11:00-13:00 - Talks	10:50-12:30 - Talks	10:40-12:30 - Talks	11:00-13:10 - Talks
	13:00-14:30 Lunch & Posters	12:30-14:00 Lunch & Posters	12:30-14:00 Lunch & Posters	13:10-14:30 Lunch
	14:30-16:40 - Talks	14:00-15:20 - Talks	14:00-15:30 - Talks	14:30-16:10 - Talks
	16:40-17:00 - Coffee break	15:20-15:40 - Coffee break	15:30-15:50 - Coffee break	16:10-16:40 – Concluding remarks and coffee
	17:00-18:40 - Talks	15:40-19:00 - Talks	15:50-17:20 - Talks	
		19:00-19:50 – Special Event	17:20-18:20 Joseph Zyss's session	
19:30-22:00 Welcome reception			19:30-22:00 Banquet	

Monday, May 24th, 2010

Welcome reception

19:30-22:00

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 addresses

8:40-9:00 Jean-Yves MERINDOL, Director of ENS Cachan
Jean-François PÔNE, PRES UniverSud
Opening remark: **Isabelle LEDOUX-RAK**

Session 1: Light-matter interactions – Fundamental aspects

Chair: Chuck SHANK

9:00-9:30 Robert SILBEY (S1-I1) Energy transfer, coherence and decoherence in molecular aggregates complexes
9:30-10:00 Shaul MUKAMEL (S1-I2) Quantum transport effects in nonlinear spectroscopy of photosynthetic light harvesting
10:00-10:20 Patrick Sebbah (S1-O1) Multiple scattering of light and speckle instabilities in nonlinear disordered media
10:20-10:40 Henri Benisty (S1-O2) Dark modes : a periodic multimode waveguide perspective
10:40-11:00 Coffee break

Session 2: Nonlinear microscopy 1

Chair: Yaron SILBERBERG

11:00-11:30 Michel ORRIT (S2-I3) Optical detection of single non-fluorescent objects
11:30-12:00 Jochen FELDMANN (S2-I4) Nano-plasmonics with biomolecules
12:00-12:20 Timothée Toury (S2-O3) New non centrosymmetric schemes for SHG of metallic nanoparticles
12:20-12:40 Jean-Pierre Galaup (S2-O4) Trapping, manipulation and rapid rotation of NBD-C8 fluorescent single crystals in optical tweezers
12:40-13:00 David Gachet (S2-O5) Background-free nonlinear Raman microscopy and spectroscopy at interfaces

Session Poster

13:00-14:30 Poster Session 1 (Hall Marie-Curie) & Lunch (Hall Villon)

Session 3: Nano(bio)photonics 1

Chair: Bob SILBEY

14:30-15:00 Charles SHANK (S3-I5) Novel approaches to high resolution bioimaging
15:00-15:30 Manuel JOFFRE (S3-I6) Femtosecond infrared spectroscopy in hemoproteins using chirped-pulse up-conversion
15:30-16:00 Sophie BRASSELET (S3-I7) New developments in molecular nano- and bio-photonics using polarized nonlinear microscopy
16:00-16:20 François Hache (S3-O6) Conformational dynamics in biomolecules studied by time-resolved circular dichroism
16:20-16:40 Hervé Rigneault (S3-O7) Dielectric microspheres to enhance local and remote fluorescence correlation spectroscopy measurements
16:40-17:00 Coffee break

Session 4: Molecular materials – Crystalline structures

Chair: Michel ORRIT

17:00-17:30 Serge GAUVIN (S4-I8) Strong intensification of parametric fluorescence inside microcavities: Effect of optical confinement on vacuum field fluctuations
17:30-18:00 José Antonio PAIXAO (S4-I9) New development in molecular crystallography for optical applications
18:00-18:20 Gabriel Y Sirat (S4-O8) Organic crystals: a reflection on a potential path to industrial applications in linear optics
18:20-18:40 Guillermo Martin (S4-O9) Integrated Optics, Interferometry and Active Devices for Astronomy

Wednesday, May 26th, 2010

Session 5: Devices: Organic Laser/OLED

Chair: Jochen FELDMANN

9:00-9:30	Ifor SAMUEL	(S5-I10)	Light-emitting organic semiconductors
9:30-9:50	Mahmoud Chakaroun	(S5-O10)	Thresholdless approach of Organic Laser Diode
9:50-10:10	Djellali Nadia	(S5-O11)	Influence of nanoscale corner quality on the emission properties of square shaped organic microlasers
10:10-10:30	Rozenn Piron	(S5-O12)	Monolithic 1.59 μm InAs/InP quantum dash passively mode-locked lasers
10:30-10:50	Coffee break		

Session 6: Polymers for Photonics

Chair: Philip RUSSELL

10:50-11:20	Mark KUZYSK	(S6-I11)	The future: smart polymeric materials
11:20-11:50	George STEGEMAN	(S6-I12)	Nonlinear optics of conjugated polymers and symmetric linear molecules revisited
11:50-12:10	Jian Hung Lin	(S6-O13)	Investigations of isotropic photonic bands of circular photonic crystals in silicon-on-insulator slab by surface coupling reflectivity technique
12:10-12:30	Fabienne Merola	(S6-O14)	Needs and strategies for improving GFP photophysics

Session Poster

12:30-14:00	Poster Session 2 (Hall Marie-Curie) & Lunch (Hall Villon)
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Session 7: Molecular Engineering for Photonics

Chair: Ifor SAMUEL

14:00-14:30	Jean-François NICOUUD	(S7-I13)	New avenues of molecular engineering for photonics and biophotonics
14:30-15:00	Hubert LE BOZEC	(S7-I14)	Molecular engineering of metal-based chromophores for nonlinear optics
15:00-15:20	Quentin Bellier	(S7-O15)	Design of efficient near-infrared dyes for nonlinear optics: towards optical limiting applications at telecommunication wavelengths
15:20-15:40	Coffee break		

Session 8: Devices and Liquid Crystals

Chair: George STEGEMAN

15:40-16:10	Philip RUSSELL	(S8-I15)	Nanoliter photochemistry and single particle guidance in photonic crystal fibers
16:10-16:40	Francesco MICHELOTTI	(S8-I16)	Bloch surface waves propagation in amorphous silicon nitride photonic crystals for biosensing applications
16:40-17:10	Francesco SIMONI	(S8-I17)	Nonlinear optics in liquid crystals: from molecular reorientation to optical trapping
17:10-17:30	Etienne Brasselet	(S8-O16)	Singular nonlinear optics of liquid crystals

Session 9: Women in Science and Technology

Chair: Mélanie LEBENTAL

17:30-18:00	Muriel TOUATY	(S9-I18)	Living as a woman in a scientific career
18:00-18:30	Marie-Paule TEULADE	(S9-I19)	Women in science : facts and figures
18:30-19:00	Discussion		

Special Event

19:00-19:50	Special event: Dedication of the Conference Hall of the Institut d'Alembert to Daniel CHEMLA
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Thursday, May 27th, 2010

Session 10: Nonlinear Microscopy 2 (Special Session Weizmann Institute/CNRS)

Chair: Robert PARIENTI

8:40-9:10	Yehiam PRIOR	(S10-I20)	Laser induced molecular alignment – small and large, slow and fast
9:10-9:40	Yaron SILBERBERG	(S10-I21)	High-NOON states by interfering classical and quantum light
9:40-10:00	Marc Guillon	(S10-O17)	Resonant locking of the size of an optically tweezed droplet
10:00-10:20	M.-P. Teulade-Fichou	(S10-O18)	Vinyl-triphenylamines: new DNA on/off probes for two-photon microscopy
10:20-10:40	Coffee break		

Session 11: Nano(bio)photonics 2 (Special Session Weizmann Institute/CNRS)

Chair: Ron NAAMAN

10:40-11:10	Abraham MINSKY	(S11-I22)	Lesion-induced pairing of sister chromatids enables homologous repair of DNA breaks
11:10-11:40	Dan ORON	(S11-I23)	Nanoparticle labels for coherent multiphoton microscopy
11:40-12:10	Sébastien Bidault	(S11-O19)	Bottom-up synthesis of plasmon-based optical antennas
12:10-12:30	François Doré	(S11-O20)	New prospects for nano-connections in photonics

Session Poster

12:30-14:00	Poster Session 3 (Hall Marie-Curie) & Lunch (Hall Villon)
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Session 12: Pedagogical Issues

Chair: Rachel MEALLET

14:00-14:30	Hung-Chih KAN	(S12-I24)	The current status and the development of the technology enabled active learning for general physics teaching at National Chung Cheng University
14:30-15:00	Nicole OSTROWSKY	(S12-I25)	From doing Science to stimulating future « Scientists »
15:00-15:30	Round Table - Discussions		
15:30-15:50	Coffee break		

Session 13: Science and Art

Chair: Joseph ZYSS

15:50-16:20	Damien SCHOEVAERT	(S13-I26)	Genesis of forms
16:20-16:50	Bernard VALEUR	(S13-I27)	Colours and sounds : from science to Art
16:50-17:20	Hervé THIS	(S13-I28)	Molecular Gastronomy is on the science side... and the only bridge toward culinary art is technology

Session 14: Special Joseph Zyss Session

Chairs: Bob SILBEY and Isabelle LEDOUX-RAK

17:20-18:20	Free contributions by friends and colleagues of Joseph Zyss, with jokes, pictures, storytelling...
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19:30-22:00	Evening visit of Musée d'Orsay in Paris and gala dinner
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Friday, May 28th, 2010

Session 15: Biomolecules and Intermolecular Interaction

Chair: Jean-François NICOUD

9:00-9:30	Shammai SPEISER (S15-I29)	Molecular scale logic circuits utilizing nonlinear optical absorption and intramolecular electronic energy transfer
9:30-10:00	Antoni MITUS (S15-I30)	Electric field octupoling in two dimensions: concepts, models and Monte Carlo simulations
10:00-10:20	Alla Kress (S15-O21)	Oriental behavior of rigidly labeled MHC Class I molecules in living cells
10:20-10:40	Bouchta Sahraoui (S15-O22)	Nonlinear optical response of orthogonal Pyrrolo-tetrathiafulvalene derivatives
10:40-11:00	Coffee break	

Session 16: Technologies

Chair: Francesco MICHELOTTI

11:00-11:30	Chia Chen HSU (S16-I31)	Fabrication of polymeric nano/micro structures for optoelectronics and Raman sensing applications
11:30-12:00	Hartmut HILLMER (S16-I32)	High vertical resolution 3D nanoimprint technology and its application in optical nanosensors
12:00-12:30	Ron NAAMAN (S16-I33)	Magneto-lithography: Patterning beyond flat and uniform surfaces
12:30-12:50	Benoît Boulanger (S16-O23)	Triple photons : a new challenge for parametric nonlinear crystal optics
12:50-13:10	Nicolas Izard (S16-O24)	Photonics based on carbon nanotubes
13:10-14:30	Lunch (Hall Villon)	

Session 17: Novel materials and devices

Chair: Shaul MUKAMEL

14:30-15:00	Gion CALZAFERRI (S17-I34)	What can we gain by inserting molecules in 1D nanochannels
15:00-15:20	M.-C. Schanne-Klein (S17-O25)	Nonlinear optical imaging of collagen liquid crystals
15:20-15:50	Dan OSTROWSKY (S17-I35)	Guided wave optics for long distance quantum communications
15:50-16:10	N. B. Plougonven (S17-O26)	"Guidonics" – Functionalized waveguide arrays for all optical control of guided light on chip

16:10-16:40 **Concluding Remarks and Coffee**