



Fifth Summer School on Molecular Nano- and biophotonics

organized by the Erasmus Mundus Master Course :
Molecular Nano- and Biophotonics for Telecommunications and biotechnologies

(MONABIPHOT)

June 26th – July 2nd, 2011

Centre de Vacance et Colloques la Villa Clythia, Fréjus, (France)



Main topics :

- ✓ DNA structural properties
- ✓ Nonlinear Physics
- ✓ Light-Matter Interactions
- ✓ Nanostructures in complex materials
- ✓ Bio-imaging
- ✓ Photoactive organic materials
- ✓ Photonic crystals and structures
- ✓ Laser spectroscopy
- ✓ Morphogenesis and chronobiology
- ✓ Molecular Gastronomy
- ✓ International Intellectual Property

Summer School Director :

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MONABIPHOT Administrative Officer and Conference Secretary

Ms Magdalena KESKA, ENS Cachan, Tel: 33 1 47 40 55 62 e-mail: magdalena.keska@lpqm.ens-cachan.fr

Sunday 26th of June

Arrivals in the afternoon

19 :30

Welcome party and dinner

After-dinner session

20:30 – 21:00

Isabelle Ledoux and Joseph Zyss

Presentation of goals and daily life of the School

Short presentation of lecturers (by themselves)

21:00 – 22:00

Françoise Livolant, Paris XI/Orsay University (1/3)

DNA in dense media under all its facets, Part I

Monday 27th of June

Morning session

08:50 – 09:50

Alain Maruani, Télécom ParisTech and École des Ponts ParisTech (1/3)

A Random Promenade in Nonlinear Things, Part I

10:00 - 11:00

Françoise Livolant, Paris XI/Orsay University (2/3)

DNA in dense media under all its facets, Part II

Break

11:30 – 12:30

Philippe Walter, Laboratoire des Musées Nationaux, Louvre and CNRS (1/2)

What we can learn from archaeological and artistic matters ?

The description of nanoparticles and molecular organizations in complex materials.

12:30 Lunch

Afternoon session

17 :20 – 18 :20

Kasia Maszyszyn, Polytechnic Wroclaw and ENS Cachan

Two photon microscopy and applications to bio-imaging

18 :30 – 19 :30

Elena Ishow, Nantes University (1/3)

Photoactive organic materials : from optical data storage to photomechanical machines, Part I

19:30 Dinner

After-dinner session

21:00 – 22:00

David Andrews, University of East Anglia (1/3)

The Photon: A Little Illumination

Tuesday 28th of June

Morning session

08:50 – 09:50

Françoise Livolant, Paris XI/Orsay University (3/3)

DNA in dense media under all its facets, Part III

10:00 - 11:00

Philippe Walter, Laboratoire des Musées Nationaux, Louvre and CNRS (2/2)

What we can learn from archaeological and artistic matters ?

The description of nanoparticles and molecular organizations in complex materials.

11 :00 – 11 :30 break

11 :30 – 12 :30

David Andrews, University of East Anglia (2/3)

A Compendium of Light-Matter Interactions

12 :30 Lunch

Afternoon session

17 :20 – 18 :20

Serge Berthier, Paris VI Pierre et Marie Curie University (1/3)

Natural photonic structures and colours : Photonic structures in cultural heritage, Part I

18 :30 – 19 :30

Alain Maruani, Télécom ParisTech and École des Ponts ParisTech (2/3)

A Random Promenade in Nonlinear Things, Part II

19 :30 - 20:50 dinner

After-dinner session

21 :00 – 22 :00

Etienne Gaviot, Le Mans University (1/2)

Respective whereabouts of human creativity as moral and patrimonial rights :

A short enquiry concerning moral stand points on Ethics and Human Creativity.

Wednesday 29th of June

Morning session

08:50 – 09:50

Elena Ishow, Nantes University (2/3)

Photoactive organic materials : from optical data storage to photomechanical machines, Part II

10:00 - 11:00

David Andrews, University of East Anglia (3/3)

Quantum Aspects of Intermolecular Action

11 :00 – 11 :30 break

11 :30 – 12 :30

Serge Berthier, Paris VI Pierre et Marie Curie University (2/3)

Natural photonic structures and colours : Natural photonic crystals, Part II

12 :30 – 19 : 00 Lunch and free afternoon (possibility of an excursion)

19 :30 - 21 :00 Dinner

After-dinner session

21 :00 – 22 :00

Etienne Gaviot, Le Mans University (2/2)

Respective whereabouts of human creativity as moral and patrimonial rights : A brief overview of the International Intellectual Property System

Thursday 30th of June

Morning session

08:50 – 09:50

Elena Ishow, Nantes University (3/3)

Photoactive organic materials : from optical data storage to photomechanical machines, Part III

10:00 - 11:00

Yehiam Prior, Weizmann Institute, Rehovot Israel (1/2)

Introduction to Modern methods in laser spectroscopy :

Dealing with basic level structure, transitions, early QM rules, and linear spectroscopy, Part I

11 :00 – 11 :30 break

11 :30 – 12 :30

Serge Berthier, Paris VI Pierre et Marie Curie University (3/3)

Natural photonic structures and colours : Black and white in nature: function, origin and properties, Part III

12 :30 – 16 :50 Lunch

Afternoon session

17 :00 – 18 :00

Hervé This, Ecole Nationale Sup. d'Agronomie /ParisTech (1/2)

A formalism for the description of colloidal systems (or how to invent 500 billions of new sauces)

18 :00 – 19 :00

Hervé This, Ecole Nationale Sup. d'Agronomie /ParisTech (2/2)

Analytical developments in Molecular Gastronomy

19 :30 - 20:30 Dinner

After-dinner session

21:00 – 22:00

Puppet show by Damien Schoevaert, St Louis Hospital and Med. School and Anne-Marie Courtot, Kremlin Bicêtre Hospital, Paris XI Univ.

Friday July 1st

Morning session

08:50 – 09:50

Yehiam Prior, Weizmann Institute, Rehovot Israel (2/3)

Introduction to Modern methods in laser spectroscopy: Measurements with light, more classical spectroscopy, microscopy, sub diffraction microscopy, Part II

10:00 - 11:00

Damien Schoevaert, St Louis Hospital and Med. School

Anne-Marie Courtot, Kremlin Bicêtre Hospital, Paris XI Univ. (1/2)

Integrative Biology: morphogenesis and chronobiology, Part I

11 :00 – 11 :30 break

11 :30 – 12 :30

Alain Maruani, Télécom ParisTech and École des Ponts ParisTech (3/3)

A Random Promenade in Nonlinear Things, Part III

12 :30 – 16 :00 Lunch

Afternoon session

17:30 – 18:30

Yehiam Prior, Weizmann Institute, Rehovot Israel (3/3)

Introduction to Modern methods in laser spectroscopy : Nonlinear spectroscopy, Raman, FWM, ultrafast and time domain, etc., Part III

Gala Dinner

21:00 – 23 :00

After-dinner contest (theme for this venue : poetry from different countries),

Farewell Party

Saturday July 2nd

Break (Luggage, vacate rooms)

10:00 – 11:00

Damien Schoevaert, St Louis Hospital and Med. School

Anne-Marie Courtot, Kremlin Bicêtre Hospital, Paris XI Univ. (2/2)

Integrative Biology: morphogenesis and chronobiology, Part II

12 :15 to 12:45

wrap-up discussion (all)

13 :00 – 14 :00 lunch and departure