Benoit LOPPINET

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French, born on January 1966
Married, three children

♦ ***RESEARCH AREA*** : Experimental soft condensed matter:
structure and properties by scattering techniques

♦ ***INTEREST*** Structure and dynamics of soft matter, *:*
(polymer and soft colloids; studied systems include polymer / colloid solutions, star polymers, biopolymers, liquid crystalline polymers, ionomers/ polyelectrolytes, surfactants, polymer brushes, hydrogels)
Structure and Dynamic close to a solid surface, confinement effect

♦ ***EDUCATION***

1994 Ph. D. in Physics, Université Joseph Fourier, Grenoble
1989 Master of Physics (DEA Matière et Rayonnement), University J. Fourier, Grenoble
1988 "Ingénieur" Degree of the National Polytechnic Insitut of Grenoble (INPG), Material Physics,

♦ ***EXPERTISE***

Soft matter physics
Experimental : Scattering techniques, X-rays, Neutrons and Light;
Small angle X-ray scattering at synchrotron or in the lab
Small Angle Neutron Scattering at Large Facilities
Dynamic Light Scattering, Photon correlation spectroscopy, Evanescent Wave geometry for surface scattering
Small Angle Light Scattering

Complementary techniques
Characterization of polymers and materials (spectroscopy Infrared/Raman/UV-vis, IR microscopy, X-ray diffraction, DSC, SEM, TEM, AFM, Optical Microscopy)
Ultra High Vacuum technology, Physical Vapor Deposition;
Notion of Photoemission Spectroscopy (XPS, UPS)
Rheology;
Computing
PC, windows, programming (Visual Basic)
Languages
French mother tongue, fluent English, some German, some Greek.

♦ ***PREVIOUS POSITION***

- Researcher (C) at the polymer group IESL-FORTH, Heraklion, (from Jan 02)
- Research Assistant Dept of Physics and Astronomy, University of Sheffield.

Biopolymer mixtures: phase behavior and gelation of bioplymer blends
Investigation of the material properties. (Nov 99-Dec 01)
-Post-Doc. At the Polymer Group / IESL-FORTH Heraklion, Greece
(November 95 to September 99),
in charge of the X-Ray generator and spectrometer
Study of Solutions of Diblock copolymer
Evanescent Wave Dynamic Light Scattering on Rodlike Molecules

-Ph. D. work at the Depart. Recherche Fondamemtale Matiere Condensee/SESAM CEA-Grenoble
3 ½ years of thesis research work (1989-1994)
Structural Study of Ionomer Solutions in Polar Solvents by mean of Small Angle Scattering, supervisors: Dr G. Gebel and Dr C. Williams

-Royal Institut of Technology (Stockholm), Material Physics Laboratory,
16 months (in the frame of national service)(1991-1992), Research Student
Elaboration and Characterization of Charge Transfer Organic Conductors Thin Films , under the direction of Dr S. Söderholm.

-4 months at Cryo-Physics Laboratory, CEA-Grenoble, (1988)
Measurements of Thermal Conductivities at Low Temperatures

♦ ***PUBLICATIONS AND CONFERENCES:*** *(SEE BELOW FOR DETAILS)*

35 articles in refereed journals , 1 book chapter, 5 proceedings

More than 10 talks in international conferences (1 selected talk) , more than 20 poster presentations

♦ ***CURRENT RESEARCH PROJECTS***

- ***Dynamic at solid/liquid interface*** :

Dynamics close to wall of responsive water soluble polymer (including thin anchored cross linked gels and polyelectrolyte end grafted brushes) collaboration with U. Jonas (MPIP Mainz-FORTH), J. Ruehe (IMTEK Friburg Germany) , G. Fytas (FORTH)

Flow velocity near solid wall : development of near field laser Doppler velocymetry ,use in various fluids : characterization of slip length at solid liquid interface / slip at the wall in concentrated solution/suspensions , colloid diffusion under flow (collaboration P. Lang , J. Dhont (Juelich FZ)

Dynamics of anisotropic colloidal particles (gold nanorods) at liquid/solid liquid/air interface (collaboration with P. Lang (Juelich FZ), R. Sigel (U of Fribourg Switzerland), L. Liz-Marzan (U Vigo) , common Post-Doc

- ***Non linear optics in Soft matter:***

Laser writing in transparent polymer solutions , analogy with optical spatial solitons PENED program

- ***Nanoparticles aggregation kinetics*** :

Kinetics of Structure formation in Zeolites precursor solutions: project coordinated by Center for Surface Chemistry and Catalysis KU Leuven (B) , European Space Agency support for microgravity experiments

- ***Formation of Polymer coating***: Research project in collaboration with industrial partner BIC : optimization of the polymer coating on razor blades

- ***Development and use of fast total internal reflection ellipsometer based on cavity ring down***: Application to macromolecules adsorption and fast folding kinetics at the solid liquid interface Cooperation with P. Rakitzis (IESL)

♦ ***FUNDING :***

Participation in a number of EU funded projects : FP6 ITN CODE, FP6 NoE Nano2Life, SoftComp, FP6 TOK COSINES, FP7 NMP-small NanoDirect, FP7-ITN Comploids
Co-applicant in one GSRT Pened2008
Participation in a number of (failed) EU proposals [main applicant FP7- IAPP ; FP6- TOK ; FP7 REGPOT , main FORTH participant FP6 RTN , FP7 –NMP small, FP7- large facility]

♦ ***OTHERS***

Member of the *Nano2life* and *SoftComp* FP6 network of excellence

Reviewing for international journals including : Macromolecules, Langmuir , J.Chem Phys, J. Pol. Sci. , European Pol. J. , Soft Matter, Phys. Rev. Lett. , J. Phys. Chem.

Responsible of the Light Scattering Experimental Platform in SoftComp NoE

Supervision and co-supervision of more than 5 undergraduated and graduated students, including 2 masters, 2 Ph. D.

Member of PhD Committees