

**XIII Workshop on Complex Systems – Program**  
**Monday, March 19th 2012**

<b>Glasses &amp; glass transition</b>		
<b>Chair: U. Buchenau</b>		
9.00 - 9.20	A.I. Chumakov	Equivalence of the boson peak in glasses to the TA van Hove singularity in crystals
9.20 - 9.40	G. Baldi	Collective vibrational modes as signature of a static length accompanying the glass transition
9.40 - 10.00	B. Champagnon	Polyamorphism and high pressure experiments
10.00 - 10.20	M.A. Ramos	Low-temperature thermal and thermodynamic properties of butanol glasses
<b>10.20 - 10.50</b>	<b>Coffee break</b>	
<b>Glasses &amp; glass transition</b>		
<b>Chair: L. Leuzzi</b>		
10.50 - 11.10	A. Marruzzo	Heterogeneous shear elasticity of glasses: the origin of the boson peak
11.10 - 11.30	W. Schirmacher	Boson peak and marginal rigidity of glasses
11.30 - 11.50	U. Buchenau	A thermodynamic description of the glass transition
11.50 - 12.10	R. Pastore	Dynamical Correlation Length and Relaxation Processes in a Glass Former
12.10 - 12.30	G. Jug	Magnetic effects from crystal embryos in the cold glasses
<b>12.13 - 16.30</b>	<b>Lunch break</b>	
<b>Soft matter &amp; colloids</b>		
<b>Chair: S. Caponi</b>		
16.30 - 17.00	A.P. Sokolov	Cooperativity and heterogeneities in dynamics of glass-forming systems: new insight
17.00 - 17.20	L. Leuzzi	On a static computation of critical slowing down exponents in glassy dynamics
17.20 - 17.40	B. Rossi	Effect of cross-linking and branching on the molecular properties of cyclodextrin-based polymers: a vibrational spectroscopy study
<b>17.40 - 18.00</b>	<b>Coffee break</b>	
<b>Bio-systems</b>		
<b>Chair: C. Masciovecchio</b>		
18.00 - 18.20	S. Sennato	Polyelectrolyte-induced aggregation of liposomes: cluster phase formation and destabilization by added salt
18.20 - 18.40	A. Paciaroni	Vibrational collective dynamics of dry and hydrated proteins in the Terahertz region
18.40 - 19.00	M. Palombo	The role of the disorder on the anomalous diffusion in 3D crowded media: simulations and NMR experiments.

## XIII Workshop on Complex Systems – Program

Tuesday, march 20th 2012

<b>Bio-systems</b>		
<b>Chair: G. Monaco</b>		
9.00 - 9.20	F. Sterpone	Protein Hydration: water dynamics and protein stability
9.20 - 9.40	P. Maas	Non-equilibrium steady states of driven particle transport with nearest neighbor interactions
9.40 - 10.00	T. Skrbic	Studying the folding of knotted proteins by Monte Carlo simulations
10.00 - 10.20	R. Covino	Folding pathways diversity for a small beta-protein using the DRP method
<b>10.20 - 10.50</b>	<b>Coffee break</b>	
<b>Glasses &amp; glass transition – Bose Einstein Condensation</b>		
<b>Chair: W. Schirmacher</b>		
10.50 - 11.20	H. Bordallo	<i>Looking into the future of neutron scattering with ESS: Current status and scientific opportunities</i>
11.20 - 11.50	M. Inguscio	<i>Exploring the physics of disorder with a tunable Bose-Einstein condensate</i>
11.50 - 12.20	A. Georges	<i>Quantum phases of cold fermions in optical lattices: cooling and spectroscopy</i>
<b>12.30 - 16.30</b>	<b>Lunch break</b>	
<b>15.00 - 16.30</b>	<b>Poster session</b>	
<b>Soft matter &amp; colloids</b>		
<b>Chair: M. Guenza</b>		
16.30 - 17.00	G. Fytas	<i>Brillouin Light Scattering and Phonon Propagation in Mesoscopic Soft Materials</i>
17.00 - 17.20	M. Mattarelli	Vibrational dynamics and Brillouin scattering in crystals of weakly interacting soft spheres
17.20 - 17.40	D. Orsi	Heterogeneous and anisotropic dynamics of a 2D gel
<b>17.40 - 18.00</b>	<b>Coffee break</b>	
<b>Water &amp; liquids</b>		
<b>Chair: K. Ngai</b>		
18.00 - 18.30	P. Gallo	Fragile to strong dynamic crossover in confined water and in aqueous solutions: viable routes for finding the liquid-liquid critical point
18.30 - 18.50	D. Prada-Gracia	The Free Energy Landscape of water by computer simulations and complex network analysis
18.50 - 19.10	L.E. Bove	Exploring the phase diagram of salty water: polyamorphism and crystalline phases

## XIII Workshop on Complex Systems – Program

Wednesday, march 21th 2012

<b>Bio-systems</b>		
<b>Chair: P. Maass</b>		
9.00 - 9.20	K. Ngai	Evidence of coexistence of change of caged dynamics at T <sub>g</sub> and the dynamic transition at T <sub>d</sub> in solvated proteins
9.20 - 9.40	S. Capaccioli	Primitive beta-relaxation as origin of the dynamic transition observed in solvated proteins
9.40 - 10.00	F. D'Amico	Raman line-shape analysis to investigate the hydrogen bonds behavior in peptide solutions
10.00 - 10.30	M. Guenza	<i>Theoretical approaches to the dynamics of polymeric liquids</i>
<b>10.30 - 10.50</b>	<b>Coffee break</b>	
<b>Glasses &amp; glass transition</b>		
<b>Chair: A. Chumakov</b>		
10.50 - 11.10	H. Schober	Aging rates in a simple glass and its melt
11.10 - 11.30	B. Ruta	Structural Relaxation and Aging in Glasses
11.30 - 11.50	F. Puosi	Correlation of the instantaneous and the intermediate-time elasticity with the structural relaxation in glassforming systems
11.50 - 12.10	B. Rufflé	Brillouin scattering from superpolished vitreous silica in the Urbach-tail region
12.10 - 12.30	S. De Panfilis	Static and dynamic structure of water-methanol mixtures
<b>12.30 - 16.30</b>	<b>Lunch break</b>	
<b>15.00 - 16.30</b>	<b>Poster session</b>	
<b>ESS &amp; new experimental techniques</b>		
<b>Chair: G. Ruocco</b>		
16.30 - 17.00	A. Marcus	<i>Conformation of exciton-coupled molecular dimers – in membranes and in DNA – by phase-modulation 2D fluorescence spectroscopy</i>
17.00 - 17.20	T. Scopigno	Sub-ps photoinduced dynamics in Heme-proteins studied by Femtosecond Stimulated Resonance Raman Scattering
17.20 - 17.40	C. Masciovecchio	FERMI@elettra based scattering experiments
<b>17.40 - 18.00</b>	<b>Coffee break</b>	
<b>In memory of Gabriele Viliani</b>		
<b>Chair: T. Scopigno</b>		
18.00 - 18.20	J. Feldman	An appreciation of Gabriele Viliani
18.20 - 18.40	G. Parisi	Models for the long time dynamics in glasses
18.40 - 19.00	G. Ruocco	Gabriele and me
19.00 - 19.20	E. Duval	My collaboration with Gabriele since 1978: Jahn-Teller effect, nanoparticles, glasses, heterogeneities

## XIII Workshop on Complex Systems – Program

Thursday, march 21th 2012

<b>Water &amp; liquids</b>		
<b>Chair: F. Mallamace</b>		
9.00 - 9.20	J.C. Dyre	What constitutes a simple liquid?
9.20 - 9.40	R. Angelini	Observation of empty liquids and equilibrium gels
9.40 - 10.00	M. Spanner	Space-resolved dynamics in the Lorentz model
10.00 – 10.20	F. Gorelli	Structure and dynamics of liquids and fluids at extreme conditions
<b>10.20 - 10.50</b>	<b>Coffee break</b>	
<b>Glasses &amp; glass transition</b>		
<b>Chair: B. Rufflé</b>		
10.50 - 11.10	J.L. Tamarit	Glassy dynamics in ordered phases
11.10 - 11.30	X. Liu	New results on the low energy excitations in amorphous silicon
11.30 - 11.50	C. Weigel	Anomalous temperature-hardening of the elastic modulus in vitreous silica
<b>11.50 - 12.00</b>	<b>Conclusive Remarks</b>	
	<b>U. Buchenau</b>	