

ACCADEMIA NAZIONALE DEI LINCEI

THE ISRAEL ACADEMY OF SCIENCES AND HUMANITIES

Joint meeting

MOLECULAR FEATURES OF SOFT MATTER: DISORDERED SYSTEMS, CLUSTERS, NANOSTRUCTURES AND INTERFACES

Pisa, 1-3 June 2000

Scuola Normale Superiore - Piazza dei Cavalieri, 7

PROGRAMME

Scientific Committee: Giuseppe Franco BASSANI, Salvatore CALIFANO, Giorgio CARERI, Gianfranco CHIAROTTI, Franco A. GIANTURCO, Raphael D. LEVINE

Thursday 1 June

- 10.00 Giuseppe Franco BASSANI, Raphael D. LEVINE: Opening addresses

Nanostructures and interfaces

Chair: Giuseppe Franco BASSANI

- 10.15 Vladimir M. AGRANOVICH: *Superradiance and self-trapping of Frenkel excitons in 1D nanostructures (J-aggregates)*
 - 11.00 Coffee break
- 11.30 Marcello COLOCCI: *New trends in the optical investigation of heterostructures at the nanoscale*
- 12.15 Raphael D. LEVINE: *Designer atoms*

Chair: Raphael D. LEVINE

- 15.00 Gil MARKOVICH: *Properties of ordered arrays of magnetic nanoparticles*
- 15.45 Giuseppe Franco BASSANI: *Organic-inorganic hybrid nanostructures: new concepts for L.E.D.*
 - 16.30 Tea break
- 17.00 Yishay MANASSEN: *STM applications for science and technology, from nanomagnetism to device fabrication*

Friday 2 June

Disordered systems

Chair: Giorgio CARERI

- 9.30 Dan SCHECHTMAN: *A new definition of crystal*
- 10.15 Giorgio PARISI: *A microscopic approach to the thermodynamic phase transition in glasses*
 - 11.00 Coffee break

Molecular clusters

Chair: Baruch HOROVITZ

- 11.30 Robert B. GERBER: *Quantum-mechanical simulations, vibrational spectroscopy, and the determination of new force fields for large clusters*
- 12.15 Flavio TOIGO: *Impurities in ^4He clusters*
- 15.00 Uzi EVEN: *Super cold molecules and small He clusters*
- 15.45 Franco A. GIANTURCO: *Molecular impurities in helium clusters: structures, dynamics and superfluidity effects*
 - 16.30 Tea break
- 17.00 Ron NAAMAN: *The electronic structure of nano particles imbedded in organic matrix as studied by low energy photoelectron spectroscopy*

Saturday 3 June

Disordered systems

Chair: Franco A. GIANTURCO

- 9.30 Oded AGAM: *Shot noise in chaotic systems: "classical" to quantum crossover*
- 10.15 Francesco SCIORTINO: *Thermodynamics of supercooled liquids: the energy landscape approach*
 - 11.00 Coffee break
- 11.20 Baruch HOROVITZ: *Disorder induced phase transition: Layered Coulomb gases and superconductors*
- 11.50 Salvatore CALIFANO: *Computer simulation and ultrafast spectroscopy of molecular glasses and liquids*
- 12.35 Final discussion

The Conference is organized with the contribution of the Scuola Normale Superiore