Multiscale phenomena in molecular matter
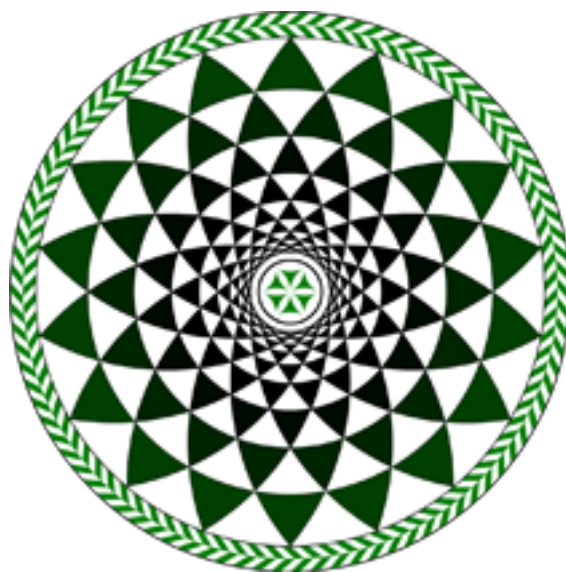
Monday, July 3, 2017 - Thursday, July 6, 2017

Scientific Program

The conference is devoted to research on molecular materials, i.e. liquid crystals, glass formers, molecular magnets and nanomagnets, molecular layered systems, polymers as well as biology-oriented and advanced materials for applications. Structure, dynamics, relaxation, magnetism, acoustics and other properties as probed by various experimental techniques and theoretical tools within a broad range of time- and length-scales will be discussed.

We plan 1 opening lecture (50 minutes), 3 keynote lectures (40 minutes), 19 invited talks (30 minutes), 15 oral presentations (20 minutes) - discussion included. A poster session will be also arranged.

The conference will be divided into the following sessions:

1. Soft matter and glass formers.

2. Molecular magnets and nanomagnets.

3. Multifunctional materials.

4. Surfaces and interfaces.

5. Miscellany (biologically oriented systems, new ideas, advanced methods,...).

Confirmed speakers

Kamel Boukheddaden

University Paris Saclay

Spatiotemporal observation and modelling of temperature scan rate effects on the thermal hysteresis and the dynamics of interface propagation in a spin-crossover single crystal

Lucia Calucci

ICCOM, Pisa

Multiscale investigation of MgO-based cements by NMR spectroscopy and relaxometry

Simone Capaccioli

University of Pisa

Dielectric spectroscopy in bulk and at nanoscale

Eugenio Coronado

University of Valencia

Physics and chemistry in 2D materials: From 2D superconductors and magnets to hybrid molecular/2D heterostructures

Maria da Silva Eusébio

University of Coimbra

Accounts of pharmaceutical co-crystals and of plastic crystal mesophases

Marco Evangelisti

University of Zaragoza

Probing temperature changes in magnetocaloric molecular matter

Yann Garcia

Catholic University of Louvain

Lattice dynamics in selected 1D coordination polymers

Karoliina Honkala

University of Jyväskylä

Electrochemical reduction of NO on Pt(100): a combined DFT and KMC study

Mark Johnson

Institute Laue-Langevin

Neutrons and atomistic simulations to study multiscale phenomena in molecular systems

Shinya Koshihara

Tokyo Institute of Technology

Ultrafast photo-control of ferroelectric order in organic and inorganic strongly correlated matters: role of hidden state

Friedrich Kremer

University of Leipzig

The extraordinary mechanical properties of spider silk and its molecular foundation

Núria López

ICIQ, Spain

Exploring complexity in oxides

Mark W. Meisel

University of Florida

Manipulating magnetic domains at interfaces of coordination-polymer, nanosized heterostructures

Motohiro Nakano

Osaka

University

Spin-crossover phenomena of a Jahn-Teller active Mn(III) complex [Mn(taa)]

Christian Naether

Kiel University

Polymorphism and isomerism in coordination compounds: the nemesis of crystal design

Alžbeta Orendáčová

Šafárik University

Interplay of spin and spatial anisotropy in quasi-two-dimensional quantum magnets

Francis Pratt

ISIS, UK

Surface dynamics of polymers studied using low energy muons

Victoria Garcia Sakai

ISIS, UK

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Using neutron techniques to explore the properties of thiophene-based polymers for organic electronics

Marzena Tykarska

WAT, Poland

Helical structure of liquid crystals tested by spectroscopy methods

Job Ubbink

California Polytechnic University

Multiscale structure in amorphous carbohydrate matrices in relation to phase behavior, molecular packing and interaction with water

Robert Podgajny

Jagiellonian University

Functionalization of cyanido-bridged clusters by ligand decoration and metal ion embedment

Jun Yamamoto

Kyoto University

Slippery interfaces - dynamics of director and helix rotations

Yasuhisa Yamamura

University of Tsukuba

Reentrant phenomenon and odd-even effect in homologous binary system of 4 alkyl-4'-cyanobiphenyl (nCB)

Soft matter and glass formers

Molecular magnets and nanomagnets

Multifunctional materials

Surfaces and interfaces

Miscellany (biologically oriented systems, new ideas, advanced methods,...)