

**International School of Liquid Crystals
18th Course**

**Liquid crystal nanostructures and self-assembling:
from organic electronics to metamaterials**

2nd School of the Italian Liquid Crystal Society

Erice, 3 – 10 July 2010

July 3

Afternoon: Arrival

21.15: Welcome Reception at the Marsala Lecture Hall (S. Rocco)

July 4

9.00-9.20	C. Zannoni (ISLC Director)	Welcome
	A. d'Alessandro (SICL President)	
9.20 - 10.20	C. Zannoni	Description of molecular organizations in Liquid Crystals. Orders Parameters, Distributions and All That.
10.20 - 11.20	G. Mehl	Introduction to synthesis of LC and novel biaxial compounds
11.20 - 11.50		<i>Coffee Break and Posters 1-19</i>
11.50 - 12.50	G. Strangi	Optical metamaterials: from basic physics to applications I

lunch break

16.00 - 17.00	J. Emsley	Traditional and novel NMR techniques for LC systems
17.00 - 18.00	P. Barois	X-ray techniques for LC investigations
18.00 - 18.20		<i>Coffee Break and Posters 1-19</i>
18.20 - 19.20	A. Golemme	Introduction to liquid crystals as semiconductors and determination of their transport properties I

July 5

9.00 - 10.00	E. Virga	Differential geometry and topology of defects
10.00 - 11.00	G. Strangi	Optical metamaterials: from basic physics to applications II
11.00 - 11.30		<i>Coffee Break and Posters 1-19</i>
11.30 - 12.30	G. Mehl	Chemistry of self-organized nanocomposites for negative refractive index materials

lunch break

16.00 - 17.00	V. Domenici	Physical properties and characterisation of biaxial LC
17.00 - 18.00	A. Golemme	Introduction to liquid crystals as semiconductors and determination of their transport properties II
18.00 - 19.20		<i>Coffee Break and POSTERS 1-19</i>

July 6

9.00 - 10.00	R. Kamien	Introduction to LC defects I
10.00 - 11.00	M. O'Neal	Liquid crystal semiconductors and applications I
11.00 - 11.30		<i>Coffee Break and Posters 1-19</i>
11.30 - 12.30	P. Barois	Self-Assembly Routes to Metamaterials for Visible Light

lunch break

16.00 - 17.00	S. Zumer	Introduction to nematic colloids
17.00 - 18.00	J. Emsley	NMR studies of solutes in liquid crystalline phases
18.00 - 18.20		<i>Coffee Break and Posters 20-38</i>
18.20 - 19.20	R. Kamien	Introduction to LC defects II

July 7

9.00 - 19.00		Excursion
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July 8

9.00 - 10.00	I. C. Khoo	Introduction to LC Optics and Photonics
10.00 - 11.00	M. O'Neal	Liquid crystal semiconductors and applications II
11.00 - 11.30		<i>Coffee Break and Posters 20-38</i>
11.30 - 12.30	B. Donnio	Dendritic materials: synthesis, theory, properties and applications

lunch break

16.00 - 17.00	B. Donnio	Nanostructured LC assemblies of nanoparticles
17.00 - 18.00	R. Kamien	Self-assembly and molecular packing properties
18.00 - 18.20		<i>Coffee Break and Posters 20-38</i>
18.20 - 19.20	D. Finotello	Emerging Scientific Research and International Collaborations at NSF

July 9

9.00 - 10.00	C. Zannoni	Computer simulations of Liquid Crystals. An Introduction
10.00 - 11.00	S. Zumer	Chiral nematic colloidal superstructures
11.00 - 11.30		<i>Coffee Break and Posters 20-38</i>
11.30 - 12.30	D. Evans	Three Dimensionally Stressed Ferroelectric Nanoparticles and Their Use in Disparate Liquid Crystal Systems

lunch break

15.30 - 16.30		POSTERS 20-38
16.30 - 17.30	I. C. Khoo	Liquid-crystals-plasmonic metamaterials for advanced optical processing
17.30 - 18.00	P. Pasini, A. d'Alessandro	Concluding remarks
20.30		Social Dinner

July 10 Departure