

**COMPUTER SIMULATIONS OF DEFECTS IN LIQUID CRYSTALS
INCLUDING THEIR RELATION TO THEORY AND EXPERIMENT**

Erice (Italy) 19-23 September 2000

Tentative Schedule

September 18

Afternoon: Arrival

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

September 19

9.00 - 9.30		Welcome
9.30 - 10.20	H-R. Trebin	Introduction to the topological theory of defects in Liquid Crystals
10.30 - 11.00		Coffee break
11.00 - 11.50	C. Zannoni	Overview of Computer Simulations in Liquid Crystals
12.00 - 12.50	E. Virga	Mathematical models for the dynamics of defects in liquid crystals: points.
Lunch break		
16.00 - 16.50	M. Allen	Molecular simulations and theory of planar interfaces in nematic liquid crystals
17.00 - 17.50	A. Windle	Computer simulations of microstructures in liquid crystalline materials
18.00 - 18.50	S. Hess	Alignment tensor versus director description of defects in nematic liquid crystals: results of analytical and numerical calculations

September 20

8.45 - 9.35	O. Lavrentovich	Nonlinear elasticity of Lamellar Structures Verified by Cholesteric Fingers
9.45 - 10.35	M. Kleman	Elasticity of Focal Conic Domains and Grain Boundaries in Lamellar Materials
10.45 - 11.00		Coffee break
11.00 - 11.50	S. Zumer	Numerical studies of confinement induced structure destabilisation and defect motion in simple and chiral nematics.
12.00 - 12.50	E. Virga	Mathematical models for the dynamics of defects in liquid crystals: lines
Lunch break		
16.00 - 16.50	M. Zapotocky	Structure and dynamics of defect networks in smectic and cholesteric LC
17.00 - 17.50	M. Kleman	The role of defects in SmA's at small shear rates
18.00 - 18.50	T.J. Sluckin	Defect formation and surface bulk smectic mismatch

September 21

8.00 - 8.30		Oral contribution
8.30 - 9.00		Oral contribution
9.00 - 9.30		Oral contribution
9.30 - 10.00		Oral contribution
10.00 - 10.30		Oral contribution
10.30 - 11.00		Oral contribution
11.00 - 19.00		Excursion to Selinunte and Segesta

September 22

8.45 - 9.35	P. Pasini	Computer simulations and defects in confined liquid crystal lattice models
9.45 - 10.35	C. Zannoni	Computer simulations and defects in uniaxial and biaxial liquid crystal films
10.45 - 11.05		Coffee break
11.05 - 11.55	S. Hess	Defects in magnetorheological fluids and in crystals undergoing plastic flow studied by NEMD Computer Simulations
12.05 - 12.55	H.R. Trebin	Dislocations and cracks in Quasicrystals
Lunch break		
16.00 - 16.50	M. Zapotocky	Defect mediated gel rheology in cholesteric liquid crystals with colloidal inclusions
17.00 - 17.50	T.J. Sluckin	Shear induced melting in smectic A liquid crystals
18.00 - 18.50	M.A. Osipov	Nematic-Smectic coexistence and phase boundaries in twisted liquid crystal cells
20.30	Social Dinner	

September 23

9.00 - 13.00	POSTER	Session
Lunch break		
15.45 - 16.35	R. Pelcovits	Topological Defects in the Gay-Berne nematic
16.45 - 17.35	S. Shyianovskii	Computer simulations and confocal microscopy of structures and defects in cholesteric liquid crystals
17.45 - 18.05		Coffee break
18.05 - 18.55	M.A. Osipov	Spontaneous formation of superlattices in 2D phases with orientational order