

# ILCC2022

28<sup>th</sup> International Liquid Crystal Conference

24<sup>th</sup> to 29<sup>th</sup> July 2022, NOVA School of Science and Technology, Lisbon, Portugal

Friday, 29th July								
Grand Auditorium								
Chair: Alenka Mertelj								
08:30-09:20	PL-5 Sung Tae Shin							
Coffee Break								
	Grand Auditorium	Building IV Amph.I	Building IV Amph.II	Building IV Amph.III	Building IV Amph.IV			
	Chair: Linda Hirst	Chair: Wei Lee	Chair: Jon Fossum	Chair: Emmanuelle Lacaze	Chair: Matthias Lehmann			
09:45-10:00	ILK-16-GA: Luiz Evangelista (online)	IL-10-AI: Tigran Galstian	DO-38: F. Gleuwitz (online)	CO-37: Y. Takanishi (online)	ILK-8-AIV: Mark MacLachlan			
10:00-10:15			AO-19: A. Susser	CO-38: C. Brown (online)				
10:15-10:30	EO-29: O. Prishchepa (online)	FO-32: M. Funahashi (online)	AO-20: L. Amaral (online)	CO-39: E. Jull	DO-39: A. Raab			
10:30-10:45	EO-30: U. Tkalec (online)	FO-33: S. Aya (online)	AO-21: J. Cartwright	CO-40: N. Kravets	DO-40: A. Santos			
10:45-11:00	EO-31: C. Slaughter	FO-34: H. Shaban (online)	AO-22: A. Figueiredo Neto	CO-41: L. Martinez-Miranda	DO-41: J. Bruckner			
11:00-11:15	EO-32: M. Máthé	FO-35: O. Buchnev	AO-23: F. Serra	CO-42: J. Lee	DO-42: M. Beira			
11:15-11:30	EO-33: J. Romero-Enrique	FO-36: M.-J. Lee	AO-24: K. Vertchik	CO-43: D. Saraiva	DO-43: E. Zavvou			
11:30-11:45	IL-17-GA: Victor Reshetnyak	FO-37: A. Parry (online)	IL-9-AII: Silvia Vignolini (online)	IL-13-AIII: Teresa Lopéz-Léon	IL-9-AIV: Sabine Laschat			
11:45-12:00		FO-38: Y. Geng						
Grand Auditorium								
12:10-12:30	Closing ceremony (and musical group performance TunaMaria)							
12:30-14:00	Lunch							

A - Liquid Crystals in Biology and Active Matter	
B - Macromolecular Liquid Crystals	
C - Confined Liquid Crystals	
D - Design of New Materials	
E - Mathematical Modelling, Symmetry and Topology	
F - Novel Applications	

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Room: **Grand Auditorium**

08:30-09:20

**Chair: Alenka Mertelj**

**PL-5** - “Envisioning Future Video Displays” S.T. Shin.

Coffee Break

09:45-12:00

**Chair: Linda Hirst**

**ILK-16-GA** - “Computer Simulations of Nematic Droplets: Biaxial and Chiral Structures in Spherical Confinement” L.R. Evangelista.

**EO-29** - “Evolution of periodic cholesteric structure with planar-conical boundary conditions in electric field” O. Prishchepa; M. Krakhalev; V. Rudyak; V. Sutormin; V. Zyryanov.

**EO-30** - “Topological states and transitions in flowing nematics” U. Tkalec; T. Emeršič; R. Zhang; S. Čopar; Ž. Kos; J.J. de Pablo.

**EO-31** - “Rheological Behavior of Shape-Changing LC Drop Suspensions” C.G. Slaughter; Z. Liu; W-S. Wei; C. Osuji; A.G. Yodh.

**EO-32** - “Electric field induced surface instability in a ferroelectric nematic material” M.T. Máthé; A. Buka; A. Jákli; P. Salamon.

**EO-33** - “Orientational transition in nanobridges of nematic liquid crystals in slit pores.” L.F. Rull; J.M. Romero-Enrique.

**IL-17-GA** - “Modelling Surface Plasmon Spectra of an ITO Nano-Ribbon Grating Adjacent to a Liquid Crystal Layer” V.Y. Reshetnyak; V.I. Zadorozhnii; I.P. Pinkevych; T.J. Bunning; D.R. Evans.

12:10-12:30

Closing ceremony

12:30-14:00

Lunch

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Room: **Building IV – Amphitheater I**

09:45-12:00

**Chair:** Wei Lee

**IL-10-AI** - “Recent progress in large aperture liquid crystal lenses” A. Pusenkova; O. Sova; T. Galstian.

**FO-32** - “High Open Circuit Voltage in Double Chiral Ferroelectric Liquid Crystals Comprising an Extended  $\pi$ -Conjugated Unit” M. Funahashi; Y. Mori; Y. Matoba.

**FO-33** - “Non-classic quasi-phase-matching of nonlinear three-wave-mixing realized by helielectric nematics” S. Aya; M. Huang; X. Zhao; H. Xu; R. Xia; J. Kougo; H. Long.

**FO-34** - “Label-Free Bioassay Based on a Nematic Aqueous Solution of a Food Coloring Dye” H. Shaban; M.-J. Lee; W. Lee.

**FO-35** - “Controlling Tamm Plasmons with Liquid Crystals” O. Buchnev; A. Belosludtsev; V. Reshetnyak; D.R. Evans; A.V. Fedotov.

**FO-36** - “Liquid Crystal-Based Single-Substrate Biosensors as Next-Generation Point-of-Care Testing Devices” M.-J. Lee; W. Lee.

**FO-37** - “The Design of Novel Liquid Crystal Droplets as Biosensors” A.A. Parry; D.A. Paterson; P. Bao; J.C. Jones; S.A. Peyman; J. Sandoe; R. Bushby; S.D. Evans; H.F. Gleeson.

**FO-38** - “Human-undetectable coatings with information encoded for IR/UV read-out using cholesteric spherical reflector shells” Y. Geng; H. Agha; R. Kizhakidathazhath; X. Ma; D.I. Avşar; J.P.F. Lagerwall.

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09:45-12:00

**Chair: Jon Fossum**

**DO-38** – “Cementing Agent”: *On Lignin’s Interplay with an Oriented Cellulosic Mesophase* F.R. Glewitz; G. Sivasankarapillai; M.-P. Laborie

**AO-19** - “Co-Revolving Topological Defects in a Nematic Liquid Crystal” A.L. Susser; S. Kralj; C. Rosenblatt.

**AO-20** - “Studies of some bio-inspired Liquid Crystals” L. Amaral.

**AO-21** - “Liquid Crystals in Biomineralization” J.H.E. Cartwright.

**AO-22** - “Structure and local order of lyotropic cholesteric calamitic phases: The effect of the chiral molecule” O.R. Santos; D. Reis; A.G. Oliveira-Filho; C.L.P. Oliveira; A.M. Figueiredo Neto.

**AO-23** - “Topological Defects in Cell Monolayers” K. Endresen; M.S. Kim; M. Pittman; Y. Chen; F. Serra.

**AO-24** - “Order and disorder in DNA toroids” K. Vertchik; C. Messaoudi; S. Trépout; A. Leforestier.

**ILK-9-AII** - “Biomimetic colour engineering from nature to applications” S. Vignolini.

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09:45-12:00

**Chair: Emmanuelle Lacaze**

**CO-37** - “New structure formation induced by nano-scale phase separation composed of a bent-core liquid crystal and rod-like cholesteric liquid crystal mixtures” Y. Takanishi; F. Araoka; H. Iwayama.

**CO-38** - “Electrically controlled topological micro cargo transportation” A.S. Bhadwal; N.J. Mottram; A. Saxena; I.C. Sage; C.V. Brown.

**CO-39** - “Geometrical control of colloidal liquid crystal alignment and dynamics” E.I.L. Jull; G. Campos-Villalobos; M. Dijkstra; L. Tran.

**CO-40** - “Convertible generation of localized umbilics” N. Kravets; E. Brasselet.

**CO-41** - “The Effect of the Buried Surface on the Structure and the Transport of Charges in Liquid Crystal Organic Photovoltaics” L.J. Martinez-Miranda; M.F. Borunda.

**CO-42** - “Viscoelastic effects of a local flow in nematic liquid crystals by a single rotating particle” J.Y. Lee; J.H. Lee; B. I. Lev; J.H. Kim.

**CO-43** - "The effect of salt and sonication on cellulose nanocrystal particle morphology for photonic, cholesteric materials" D.V. Saraiva; L. Tran.

**IL-13-AIII** - “The intricate dance of topological defects in confined active nematics” M. Clairand; C. Doré; J. Hardouin; A. Mozaffari; Z. Rui; J. de Pablo; J. Ignés-Mullol; F. Sagués; T. Lopez-Leon.

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09:45-12:00

**Chair: Matthias Lehmann**

**ILK-8-AIV** - “Responsive Photonic Materials from Colloidal Liquid Crystals” M.J. MacLachlan.

**DO-39** - “Fluorenone imidazolium salts as novel de Vries materials” A.R. Raab; K. Bader; C. Müller; Y. Molard; A. Baro; P. Ehni; J. Knelles; S. Laschat.

**DO-40** – “Stimuli-Responsive Ionic Liquid Crystals: Synthesis, Characterization and Application” A.F.M. Santos; H. Cruz; M.H. Godinho; J.L. Figueirinhas; M. Dionísio; L.C. Branco.

**DO-41** - “Lyotropic Liquid Crystal Phase Behavior of High Molar Mass Reverse Poloxamers and their Use as Structure-Directing Agents” C. Vogler; S. Itzigehl; S. Naumann; J. R. Bruckner.

**DO-42** - “The subtle importance of collective motions on isotropic magnetic and non-magnetic ionic liquid systems” M.J. Beira; R. Cordeiro; C. Cruz; J.L. Figueirinhas; P.J. Sebastião.

**DO-43** - “Photoalignment and giant SHG response in a ferroelectric nematic phase and its mixtures with the NTB compounds” E.E. Zavvou; P.K. Karahaliou; A.G. Vanakaras; O. Haba; M. Bremer; A. Eremin.

**IL-9-AIV** - “Solid State Structures as Inspiration for the Design of Luminescent Liquid Crystals: Turning a Poor Catalyst into Highly Emissive Soft Matter” S. Laschat.