

Program Schedule

8:30 - 9:00 AM	Registration
9:00 - 9:05	Welcome (Dr. Oleg D. Lavrentovich, LCI Director)
9:05 - 9:50	Alfred Saupe Memorial Presentation (Given by Prof. Antal Jakli, Prof. Peter Palffy-Muhoray and Dr. Juergen Nehring) Note: The Saupe family will be in attendance and available to meet with friends in LCI Room 229 from 10:30-12:00 noon.
9:50 - 10:25	Invited Speaker Prof. Lorenzo Marrucci, Dipartimento di Scienze Fisiche and CNR-INFM “Coherentia”, Universit degli Studi di Napoli Federico II, Italy “Orbital angular momentum and quantum coalescence of “helical” photon pairs emerging from a liquid crystal “q-plate””
10:25 - 10:40	Coffee Break
10:40 - 11:15	Invited Speaker Prof. Robijn Bruinsma, Physics, UCLA, “Chiral Biopolymers”
11:15 - 12:00 noon	Student presentations (~15 minutes each) Lu Lu, CPIP student, “Fast-switching electro-optical films based on polymer encapsulated liquid crystal and carbon nanotube” Lena Lopatina, CPIP student, “Simulating defect structures in nematic liquid crystal shells” Hari Atkuri, KSU Physics student, “Monitoring the surfactant coverage on ferroelectric particle during a ball milling process”
12:00 - 1:30	Lunch Break
1:30 - 3:30	Student Poster Session, Industrial Exhibition, LCI lab tours and demonstrations
3:30 - 4:05	Prof. Jim Gleeson, Dept. of Physics, Kent State University, “Liquid crystals do that?!” (Alumnus Achievement Award presented)
4:05 - 4:30	Student Presentations by participants of IRES (CPIP students Jake Fontana, Stephanie Taushanoff and Nick Diorio will speak about their experiences as visiting researchers in Europe)
4:30 - 5:00	Panel Discussion “From Student to Entrepreneur” Panelists include: • Prof. Julie Messing, KSU College of Business, Director of the Center of Excellence for Entrepreneurship & Business Innovation • Dr. Bahman Taheri, CEO, AlphaMicron, Inc. • Dr. Albert Green, CEO, Kent Displays, Inc. Panel Chair: Prof. Philip Bos
5:00 - 5:15	Student Awards Ceremony
5:30 - 7:30	Mixer at Student Center / Rathskeller (Free pizza and soda provided, cash bar available) Located in the lower level of the Kent Student Center

Poster Session

Posters will be shown on the 3rd Floor Atrium at the LCI between 1:30 - 3:30 PM.

Best posters from each experience level will be awarded at 5:00 PM in the LCI Samsung Auditorium.

- A1. “Liquid crystal elastomers swollen in bent-core liquid crystals” - **M. Chambers (Post Graduate)**
- A2. “Pattern formations in Langmuir films made of chiral lipid molecules” - **P. Bahadur Basnet (3+ year Graduate)**
- A3. “Fast-switching electro-optical films based on polymer encapsulated liquid crystal and carbon nanotube” - **L. Lu (1-2 year Graduate)**
- A4. “Modeling 3D distortions of nematic membranes” - **V. K. Gimenez (1-2 year Graduate)**
- A5. “Mechanical Instabilities in Liquid Crystal Elastomers” - **B. Mbanga (3+year Graduate)**
- A6. “The New Liquid Crystal Materials Facility” - **P. Luchette (Post Graduate)**
- B1. “Tunable Beam Steering using a liquid crystal optical phase plate with a variable in-plane gradient” - **L. Shi (3+ year Graduate)**
- B2. “Enhanced Optical Transmission through Circular and Spiral Trenches in Ag Films” - **F. Wang (3+ year Graduate)**
- B3. “Optical Polarizer and Filter by Metallic Grating for LCD application” - **F. Wang (3+ year Graduate)**
- B4. “Light Scattering study of a Lyotropic Chromonic Nematic Liquid Crystal” - **K. Neupane (3+ year Graduate)**
- B5. “Investigation of Flexoelectricity in a Bent-core Nematic Liquid Crystal by Dynamic Light Scattering” - **M. Majumdar (3+ year Graduate)**
- B6. “Carbon nanotube doped liquid crystal OCB cells: physical and electro-optical properties” - **S. Lu (3+ year Graduate)**
- B7. “Measurements of the electric susceptibilities of Au nanorods at optical frequencies” - **J. P. Fontana (3+ year Graduate)**
- B8. “Structure and Electro-Optics of Chiral Propeller Liquid Crystal Droplets” - **S. E. Hicks (3+ year Graduate)**
- B9. “Analytic solutions of normal modes of light propagation in a cholesteric liquid crystal film” - **S. Relaix (Post Graduate)**
- B10. “Electro-optic effects of liquid crystals with dielectric dispersion” - **H. Wonderly (1-2 year Graduate)**
- B11. “Effective Screening Length of Isotropic Liquid Samples Submitted to an Applied Voltage” - **R. S. Zola (1-2 year Graduate)**
- C1. “Line Tension and the Nature of the Boundary in a Pure Model System” - **R. M. Teeling (Undergraduate)**
- C2. “Simulating defect structures in nematic liquid crystal shells” - **L. M. Lopatina (3+ year Graduate)**
- C3. “Study of DNA-WT1 Protein Interaction by Surface Enhanced Raman Spectroscopy (SERS)” - **B. Prasad Joshi (3+ year Graduate)**
- C4. “Metal-Dielectric-Metal Nanoantenna as a SERS Probe in Vitro Cell Imaging” - **B. Prasad Joshi (3+ year Graduate)**
- C5. “Self-assembly of Novel Discotic Liquid Crystal Porphyrins into Ordered Nanostructure” - **X. Zhou (3+ year Graduate)**
- C6. “Theory and simulation of two-dimensional nematic and tetratic phases” - **J. Geng (1-2 year Graduate)**
- C7. “Appearance of Broken Reciprocity in Cholesteric Liquid Crystals” - **M. F. Moreira (Post Graduate)**
- C8. “Study of Phase behaviors of a binary mixture of Lipid and Cholesterol” - **F. P. Bhatta (3+ year Graduate)**
- C9. “Synthesizing Anisotropic Cadmium Sulfide Nanoparticles in Lyotropic Nanoreactors” - **S. Taushanoff (3+ year Graduate)**
- C10. “Solid Spherical Particles Spinning in a Cholesteric Liquid Crystal” - **B. Senyuk (3+ year Graduate)**
- C11. “Entropically driven condensed phase of lyotropic chromonic liquid crystals” - **H. Park (3+ year Graduate)**
- C12. “Monodomain alignment of the smectic A liquid crystalline phase from the isotropic phase” - **M. Reznikov (3+ year Graduate)**
- D1. “Controlling Liquid Crystal Pretilt Using a Novel Double Layer Alignment Film” - **K. Zhang (Post Graduate)**
- D2. “Measurement of the Converse Flexoelectric Effect of a Bent-Core Nematic Liquid Crystal” - **J. E. Harden (3+ year Graduate)**
- D3. “Dynamics of colloidal particles in anisotropic media” - **I. E. Lazo-Martinez (3+ year Graduate)**
- D4. “A Study on Selective Liquid Crystal Sensor Based on Avidin-Biotin System” - **L. Li (1-2 year Graduate)**
- D5. “Driving Dynamics of VA-LCDs with Small Pretilt Angle” - **S. Hurley (3+ year Graduate)**
- D6. “Flexoelectricity in Nematic Liquid Crystals” - **S. Dhakal (3+ year Graduate)**
- D7. “Transparent Stressed Liquid Crystals in the Visible Range” - **H. M. Atkuri (3+ year Graduate)**
- D8. “Monitoring the Surfactant Coverage on Ferroelectric Particle during a Ball Milling Process” - **H. M. Atkuri (3+ year Graduate)**
- D9. “Colloidal particles in non uniform field” - **V. Borshch (1-2 year Graduate)**
- D10. “Liquid Crystal Order and Switching Dynamics in Ultra-thin Cell” - **E. Dorjgotov (3+ year Graduate)**
- D11. “Liquid Crystal membranes in Aqueous Solutions” - **V. S. Hamidi (Undergraduate)**



About Liquid Crystal Day

Liquid Crystal Day serves to provide platforms for intellectual and enlightening interactions between students and researchers from different academic and professional areas. This one-day symposium is free and open to anyone interested in liquid crystals. Best poster awards will be presented to students who submit an abstract to show a poster. Based on the abstract submission, some students will be selected to give an oral presentation.

Industrial Exhibition

Exhibitors include:

AlphaMicron, Inc.
FlexMatters Accelerator
Kent Displays, Inc.
LXD, Inc.
LCI Industrial Partnership Program
Technology Transfer, Kent State University

The industrial exhibition will start at 1:30 p.m. in the LCI 2nd Floor Atrium.

Scientific Committee

Prof. Robin Selinger
Prof. Antal Jakli
Prof. L.-C. Chien
Prof. Qi-Huo Wei

Organizing Committee

Chair: Prof. Robin Selinger
Vice-Chairs: Prof. Antal Jakli and Prof. Qi-Huo Wei
Staff: Jim Maxwell, Leo Holmberg, Betty Hilgert
Publicity: Kimberley Sirk (KSU Communications and Marketing)
Student Volunteers: Badel Mbanga, Sarah Hicks, Lena Lopatina, Jeremy Neal, Hugh Wonderly, Israel Lazo Martinez

Special Needs:

Kent State University is committed to making its activities as accessible as possible to all persons with a disability. If you need an accommodation please contact Jim Maxwell at the LCI, 330-672-7770 or email: maxwell@lci.kent.edu

Discover the World of Liquid Crystals

Liquid Crystal Day

Sept. 19, 2008

9:00 AM - 5:30 PM

Samsung Auditorium
Liquid Crystal Institute
Kent State University
Kent, Ohio, USA

Highlights:

- Invited Speakers
- Student Presentations
- Student Posters
- LCI Lab tours and demos
- Industrial Exhibition

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Program