British Liquid Crystal Society

Annual Meeting
April 19th-21st 2023

Jointly hosted by the
Universities of Glasgow and Strathclyde

University of Glasgow

BRITISH LIQUID CRYSTAL SOCIETY

University of Strathclyde Glasgow

Welcome

The Organisers of this year's BLCS Annual Meeting, jointly hosted by the Universities of Glasgow and Strathclyde, are delighted to welcome you to the city of Glasgow.

This year's meeting aims to continue the BLCS tradition of providing a platform for early career researchers, whether PhD students or postdoctoral researchers, to present their work to an expert audience. We would like to extend our thanks to all those who have contributed to this year's excellent programme.

Many thanks to our sponsors...

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...and to all those that have helped with organisation

The Scientific Committee: Stephen Wilson (Chair), Joseph Cousins, Oliver Henrich, Apala Majumdar, Geoff McKay, Nigel Mottram, Mikhail Osipov, Rachel Tuffin, Rebecca Walker.

The Registration team: Ijuptil Joseph Kwajighu and Lucy Gladstone-Wallace.

The conference and catering team at the University of Glasgow, in particular Lucinda Hay, and the security and AV technical help in the Sir Charles Wilson Building.

Booklet design: Joseph Cousins

photo credit: Dr Stephen Cowling, University of York

Essential Information

BLCS2023 webpage

Transport

The conference is being held in the Sir Charles Wilson Building (3 Kelvin Way, Glasgow G12 8NN) at the University of Glasgow. Information about travel to the University of Glasgow is available on the webpage www.gla.ac.uk/explore/maps/howtogethere/.

For travel within Glasgow, the Hillhead and Kelvinbridge subway stations are within 10 minutes' walk of the conference venue. These subway stops connect to the city-center Buchannan Street subway station.

The nearest railway stations are Charing Cross (connected to Glasgow Queen Street), Anderston (connected to Glasgow Central) and Partick (connected to both Glasgow Queen Street and Central). These stations are approximately 1 mile from the conference venue.

Bus routes 4, 4A and 15 run through the main campus to and from the city centre, and other routes serve nearby Dumbarton Road, Great Western Road and Byres Road.

Black taxi-cabs can be picked up at most times in the University area and the city centre. You can also phone for a black taxi-cab on 0141 429 7070. Uber is also available throughout the city.

An online map with important locations can be found here – conference map.

Presentation Instructions

Talks: contributed talk slots are 20 minutes long which should include time for questions. We advise speakers to plan for 15-minute talks. Invited and Prize talks are within a 40-minute slot.

Posters: poster boards will be 91cm wide and 210cm tall, which is sufficient for an A0 poster in portrait orientation or an A1 poster in landscape orientation. The poster boards will be available throughout the conference and presenters are asked to put their posters up as soon as they arrive.

Catering

Coffee/tea and lunches: are provide on all three days, and will be served in the Sir Charles Wilson Building.

Dinner on Wednesday: is not provided, but there is a fantastic range of restaurants and bars nearby. Gibson Street, Byres Road and Ashton Lane are the main areas, and are all within 10 minutes' walk from the conference venue (see map).

Dinner on Thursday: the Conference Dinner forms part of the registration and will be held in the Ferguson Room (within One A The Square), in the Main Building of the University of Glasgow (see map).

WIFI access

Wifi access is available through the University of Glasgow campus via Eduroam or the UofG visitor network.

Contacts

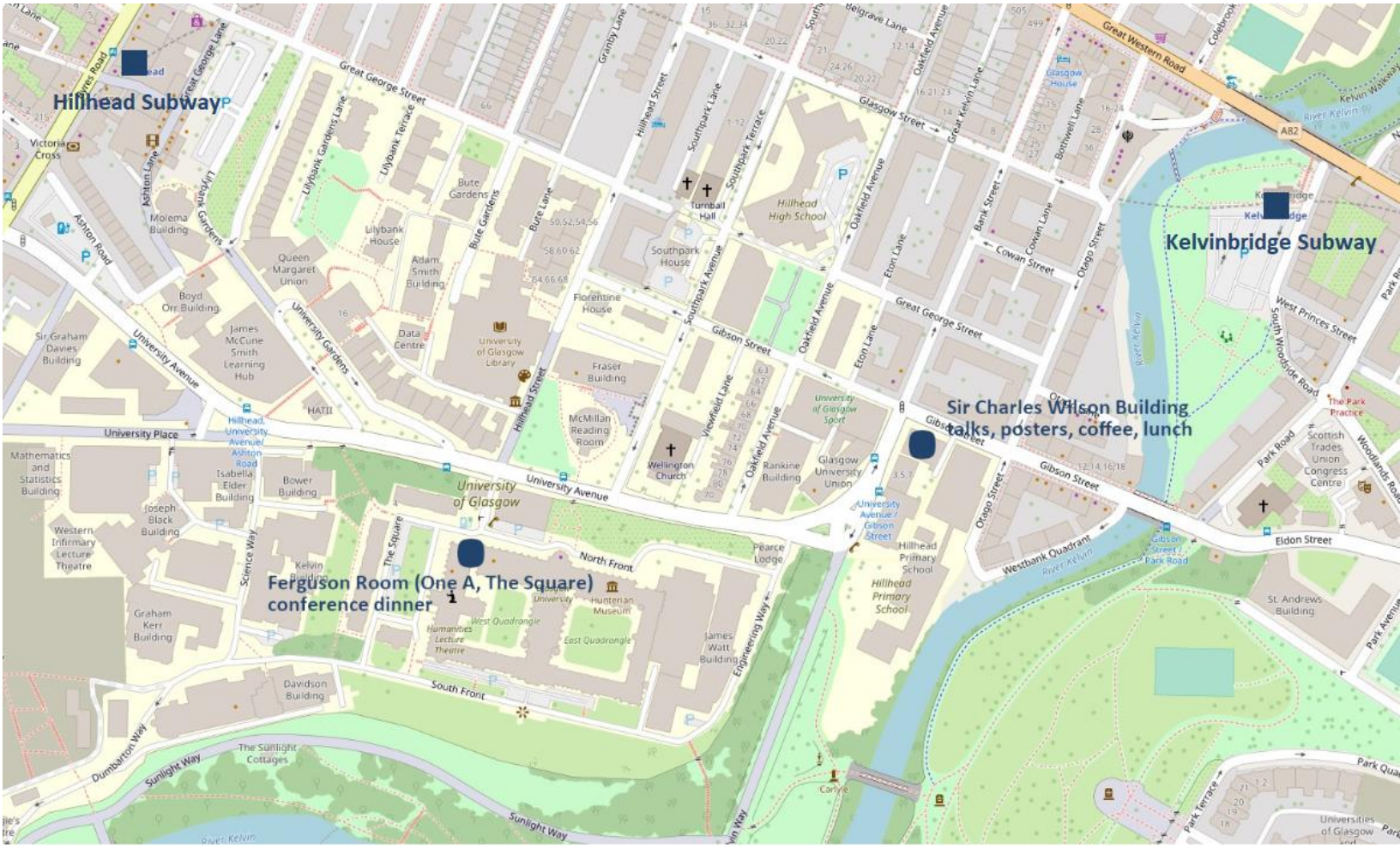
Any further enquires can be sent by email to BLCS2023@gmail.com or please talk to any of the organising team.

Location map

All talks and poster sessions, as well as coffee and lunch, will be held in the **Sir Charles Wilson Building**.

The Conference Dinner will be held in the **Ferguson Room** (within One A The Square), in the Main Building of the University of Glasgow.

An online map with important locations can be found here – conference map.



Programme summary

	Wednesday 19th April	Thursday 20th April	Friday 21st April
9.20am - 9.40am		I1: Laschat	I2: Mihai
9.40am - 10.00am			
10.00am - 10.20am		Butlin	Berrow
10.20am - 10.40am		Kozlovska	Cooper
10.40am - 11.00am		Spiller	Raistrick
11.00am - 11.20am		coffee	coffee
11.20am - 11.40am			
11.40am - 12.00pm	Registration	Masters	Jull
12.00pm - 12.20pm		Cruickshank	Fedorowicz
12.20pm - 12.40pm		Strachan	Cousins
12.40pm - 1.00pm	lunch	Tang	Moorhouse
1.00pm - 1.20pm		lunch	I3: Atherton
1.20pm - 1.40pm			
1.40pm - 2.00pm	Sturgeon Lecture: Serra		lunch
2.00pm - 2.20pm		Prize giving and Gray Medal lecture	
2.20pm - 2.40pm	Houston		BLCS Committee meeting
2.40pm - 3.00pm	van Rossem		
3.00pm - 3.20pm	McLauchlan	Trushkevych	
3.20pm - 3.40pm	Shendruk	Nourshargh	
3.40pm - 4.00pm	coffee	coffee	
4.00pm - 4.20pm			
4.20pm - 4.40pm	Norman	Sponsors	
4.40pm - 5.00pm	Zeng	Walker	
5.00pm - 5.20pm	Bankova	Gibb	
5.20pm - 5.40pm	Zhao	Conopo-Holyoake	
5.40pm - 6.00pm	Posters	AGM	
6.00pm - 6.20pm			
6.20pm - 6.40pm			
6.40pm - 7.00pm			
7.00pm - onwards		Conf. Dinner	

Programme

Abstracts are available at
tinyurl.com/BLCS2023Programme

Wednesday 19th April

11.40am - 12.40pm	**Registration**		
12.40pm - 1.40pm	**lunch**		
	Defects and Activity: Chair - Prof. Helen Gleeson		
1.40pm - 2.20pm	Francesca Serra	University of Southern Denmark	**Sturgeon lecture**: Faults that are rich are fair: the many beauties of liquid crystal defects
2.20pm - 2.40pm	Alexander Houston	University of York	The Role of Elastic Anisotropy in Active Nematics
2.40pm - 3.00pm	Maria van Rossem	University of Southampton	Mathematical modelling of charge effects in liquid crystalline biofilms
3.00pm - 3.20pm	Sophie McLauchlan	University of Strathclyde	Defects in a Spherical Droplet of Nematic Liquid Crystal
3.20pm - 3.40pm	Tyler Shendruk	University of Edinburgh	Defect conformations in 3D active nematics
3.40pm - 4.20pm	**coffee**		
	Twist: Chair - Dr Rebecca Walker		
4.20pm - 4.40pm	Jason Norman	University of Edinburgh	Towards chemical sensing applications using chiral nematic liquid crystal droplet lasers
4.40pm - 5.00pm	Xiangbing Zeng	University of Sheffield	Enantiomers Self-Sort into Separate Counter-Twisting Ribbons
5.00pm - 5.20pm	Deni Bankova	University of Southampton	Optical measurement of the twist elastic constant for nematic liquid crystals
5.20pm - 5.40pm	Guinan Zhao	University of Manchester	Order parameter modelling using molecular simulation techniques
5.40pm - 7.00pm	**Posters**		

Thursday 20th April

	Light: Chair - Prof. Giampaolo D'Alessandro		
9.20am - 10.00am	Sabine Laschat	University of Stuttgart	**Invited lecture**: Making light with liquid crystals: Luminescent LCs via ionic self-assembly and supramolecular interactions
10.00am - 10.20am	Michael Butlin	University of Birmingham	Triphenoxazoles substituted with halogens: Luminescent, liquid crystalline materials
10.20am - 10.40am	Elizabete Kozlovska	University of the West of England	Colour printing with liquid crystals
10.40am - 11.00am	Nathan Spiller	University of Oxford	Liquid Crystal Laser Speckle Reducers
11.00pm - 11.40pm	**coffee**		
	Phase behaviour: Chair - Dr Dwaipayan Chakrabati		
11.40am - 12.00pm	Andrew Masters	University of Manchester	The ferroelectric nematic phase – some history, some theory and some simulations
12.00pm - 12.20pm	Ewan Cruickshank	University of Aberdeen	The Influence of Multiple Lateral Groups on the Formation of the Ferroelectric Nematic Phase
12.20pm - 12.40pm	Grant Strachan	Trinity College Dublin	Differing phase behaviour of liquid crystal trimers containing E or Z benzanilides
12.40pm - 1.00pm	Yumin Tang	The University of Sheffield	Stepwise Twisting of Molecular Directions in a Double Gyroid Bicontinuous Cubic Phase
1.00pm - 2.00pm	**lunch**		
2.00pm-3.00pm	Prize giving and Gray Medal lecture		
	New applications: Chair - Dr Joseph Cousins		
3.00pm - 3.20pm	Oksana Trushkevych	University of Warwick	Unusual applications of LC – mapping ultrasound fields
3.20pm - 3.40pm	Camron Nourshargh	University of Oxford	Laser Written Liquid Crystal Vortex Beam Generators

3.40pm - 4.20pm	**coffee**		
4.20pm - 4.40pm	**Sponsor talk**		
	Twist-Bend: Chair - Dr Susanne Klein		
4.40pm - 5.00pm	Rebecca Walker	University of Aberdeen	New investigations into the twist-bend smectic phases
5.00pm - 5.20pm	Calum Gibb	University of Aberdeen	New examples of twist-bend liquid crystal phases - The synthesis and characterisation of the CBO6·Om series.
5.20pm - 5.40pm	Stephan Conopo-Holyoake	University of Hull	Measurement of chiral domain formation in Ntb thin films
5.40am - 6.00pm	**BLCS Annual General Meeting: main auditorium**		

7.00pm - onwards	**Conference Dinner - Ferguson Room (within One A The Square)**

Friday 21st April

	Elastomers: Chair - Prof. Stephen Morris		
9.20am - 10.00am	Angela Mihai	University of Cardiff	Invited Lecture: Instabilities in liquid crystal elastomers
10.00am - 10.20am	Stuart Berrow	University of Leeds	Increasing The Thickness of Surface Aligned Liquid Crystal Elastomers Through PET-RAFT Polymerisation
10.20am - 10.40am	Emily Cooper	University of Leeds	Order and Optics of Liquid Crystal Elastomers
10.40am - 11.00am	Thomas Raistick	University of Leeds	Direct and indirect evidence of biaxial order in auxetic liquid crystal elastomers
11.00pm - 11.40pm	**coffee**		
	Confinement: Chair - Dr Phil Hands		
11.40am - 12.00pm	Ethan Jull	Utrecht University	Geometrical control of colloidal liquid crystal alignment and dynamics
12.00pm - 12.20pm	Kamil Fedorowicz	University of Manchester	On the flows of nematic liquid crystals through a T-junction
12.20pm - 12.40pm	Joseph Cousins	University of Glasgow	The governing equations for a nematic liquid crystal Hele-Shaw cell
12.40pm - 1.00pm	Thomas Moorhouse	University of Leeds	Liquid Crystal Alignment on Spontaneously Formed Surface Relief Structures
1.00pm - 1.40pm	Tim Atherton	Tufts University	Invited lecture: Surfing, sweeping and assembly of particles by a moving liquid crystal phase boundary
1.40pm - 2.20pm	**lunch**		
2.20am - 3.00pm	**BLCS Committee Meeting: lower seminar room**		

Posters

P1	Oana Niculescu	University of Cambridge	Astronomical Adaptive Optics Using Liquid Crystal Phase Modulators
P2	Arunkumar Bupathy	University of Birmingham	Molecular Simulations of a New Class of Fluorescent Discotics
P3	Martha Turvey	University of Warwick	Liquid Crystal Sensors for Ultrasonic Displacement Measurements
P4	Mark Wilson	Durham University	The structure of the ferroelectric nematic phase: insights from molecular dynamics simulations
P5	Ieva Pakamoryte	The University of Edinburgh	Improving the stability of liquid crystal lasers using a combined molecular-electromagnetic model
P6	Charles Parton-Barr	The University of Leeds	Density Measurements of Liquid Crystals
P7	Dezhi Shen	University College London	Structures for self-assembly of liquid crystal colloids
P8	Calum Gibb	University of Aberdeen	Alternative synthetic method to prepare liquid crystal dimers using sodium activated aromatic coupling reactions.
P9	Marijus Juodka	University of Aberdeen	The effect of varying terminal alkyl chain length on the ferroelectric nematic phase
P10	Gytis Stepanafas	University of Aberdeen	Study of the Effects of Sulfur and Fluorine on Ferroelectric Nematic Liquid Crystals
P11	Naila Tufaha	University of Aberdeen	Molecular Shape, Electronic Factors and the Ferroelectric Nematic Phase
P12	Aidan Street	University of Leeds	Auxetic Threshold and Order Measurements in two Liquid Crystal Elastomers (LCEs)
P13	Afaf Alshammari	University of leeds	Alignment of Chromonic Liquid Crystals
P14	Harry Godden	University of Leeds	Liquid Crystal Materials for THz frequency adaptive optics
P15	Jiancong Xu	University of Leeds	Synthesis of Liquid Crystal Elastomers in Flow System
P16	Meg Coleman	University of Leeds	Investigating how hairpin-like characteristics effect mechanical dissipation in liquid crystal elastomer networks
P17	Yucen Han	University of Strathclyde	Interaction of Pf4 tactoids with bacteria and synthetic colloidal rods
P18	Nicolas Brouckaert	University of Southampton	Optical and electrical properties characterisation of photovoltaic spatial-light modulators through cross-polarised intensity measurements
P19	Jay Morris	University of Birmingham	Structure Prediction and Self-Assembly of Multipolar Nematic Colloids
P20	Ijuptil Joseph Kwajighu	University of Glasgow	Instabilities in active nematic liquid crystals subject to an applied orienting field
P21	Karolis Virzbickas	Univeristy of Birmingham	Triphenoxazoles - a new class of Photoconducting Liquid Crystalline materials for organic electronic applications
P22	Mikhail Osipov	University of Strathclyde	Effect of Anisotropic Nanoparticles on the Dielectric Susceptibility of Nematic Nano-Composites
P23	Varun Chandrasekar	University of Manchester	Microscopic viscosity measurements of liquid crystal phases using ferrofluid droplets