

UK Fluids Network/ECMI Workshop
Nematics at the Meeting Point of Solid Mechanics and Fluid Dynamics –
New Perspectives and Challenges

Venue: University of Bath, United Kingdom

Dates: 28th and 29th June 2018

Organizer: Dr Apala Majumdar (Reader in Applied Mathematics, University of Bath)

We are pleased to announce a forthcoming research workshop on "Nematics at the Meeting Point of Solid Mechanics and Fluid Dynamics – New Perspectives and Challenges" at the University of Bath on the 28th and 29th June 2018. This meeting is funded by the EPSRC UK Fluids Network and is being organized under the auspices of the UKFN Special Interest Group on "Fluid dynamics of liquid crystalline materials" (<https://fluids.ac.uk/sig/LiquidCrystals>). The meeting brings together researchers working in nematic liquid crystals, their static and dynamic theories, optical modelling, numerical simulations and analogies between nematic theories and solid mechanics. This meeting will serve as a common platform to discuss recent exciting developments in nematic solitons, nematic microfluidics, and the rich applications of nematics in confinement and nematics under flow, along with powerful new computational techniques to explore the solution landscapes.

The seven confirmed speakers and their titles are given below.

[1] Halim Kusumaatmaja (Durham, UK)

Working title: Applications of energy landscape methods to problems in elasticity and liquid crystals

[2] Noel Smyth (Edinburgh)

Title: The nonlinear optics of nematic liquid crystals: solitary waves and undular bores

[3] Oliver Henrich (Strathclyde)

Title: Mesoscopic simulation of flowing topological composite materials

[4] Duvan Henao (PUC Chile)

Title: Meeting points of cavitation and nematics

[5] Nigel Mottram (Strathclyde UK)

Title: Trapped! Anisotropic fluids in confined geometries

[6] Ian Griffiths (University of Oxford)

Title: Mathematical modelling for liquid crystal microfluidics

[7] Lei Zhang (Peking University)

Title: Numerical methods of finding transition states and their applications in materials

This meeting is also partly supported by a Royal Society Newton Advanced Fellowship awarded to Apala Majumdar (University of Bath) and Lei Zhang (Peking University). The meeting is open to everybody and if you are interested in attending please send an expression of interest to Dr Apala Majumdar (a.majumdar@bath.ac.uk). There is no registration fee, and lunch and refreshments will be provided to all participants on both days. We look forward to welcoming you at Bath!

