Thursday 13th and Friday 14th July 2017

New Frontiers in Colloid Science
Nicholson Building

Agenda – Thursday 13th

08:30  Registration and refreshments

09:00  Welcome
  Tim Softley, University of Birmingham
  Dwaipayan Chakrabarti, University of Birmingham and Vinothan Manoharan, Harvard University

09:30  Daan Frenkel, University of Cambridge
  Self-assembly and health: the bad news is the good news

10:00  Stefano Sacanna, New York University
  Shape-Reconfigurable Colloids

10:30  Daniela Kraft, Leiden University
  Reconfigurable colloidal structures

11:00  Refreshment break

11:30  David Wales, University of Cambridge
  Exploring Energy Landscapes: New Frontiers for Colloids

12:00  Roy Johnston, University of Birmingham
  Energy Landscapes of Nano-hydrated Anions

12:20  Qian Chen, University of Illinois at Urbana Champaign
  Direct Imaging of Crystallization Kinetics and Interfacial Fluctuations of Nanoparticle Superlattices

12:50  Lunch and Poster viewing session
Thursday 13\textsuperscript{th} and Friday 14\textsuperscript{th} July 2017

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\textbf{Agenda – Thursday 13\textsuperscript{th}}

14:00 \textbf{Peter Dowding}, Infineum UK Limited
\textit{Challenges involving additive competition in the formulation of lubricant additives}

14:30 \textbf{Zhenyu Jason Zhang}, University of Birmingham
\textit{Nanotribology of Soft Matter at Interface}

14:50 \textbf{Eric Robles}, Procter and Gamble
\textit{Technical Challenges in Characterising Complex Colloidal Systems in Consumer Goods Industry}

15:20 \textbf{Zhibing Zhang}, University of Birmingham
\textit{Understanding the mechanical strength of functional microcapsules, their adhesion on fabric surface and barrier properties for developing consumer products}

15:40 \textbf{Melanie Britton}, University of Birmingham
\textit{Using MRI to Understand the Interplay between Structure and Rheology in Colloidal Systems}

16:00 Refreshment break

16:30 \textbf{Paul Luckham}, Imperial College London
\textit{The Formation of Reversible Particle - Polymer Gels under Extensional Shear}

17:00 Group Discussions

17:45 Close
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Agenda – Friday 14th

08:45 Refreshments

09:00 **Mike Cates**, University of Cambridge
*Guided Assembly of Self-Propelled Colloidal Particles*

09:30 **Wilson Poon**, University of Edinburgh
*Painting with bacteria: Using E. Coli for templated supra-colloidal self-assembly*

10:00 **Julia Yeomans**, University of Oxford
*Confining active turbulence*

10:30 **Zorana Zeravcic**, ESPCI, Paris
*Towards Living Matter with Colloidal Particles*

11:00 Refreshment break

11:30 **Tim Albrecht**, Imperial College London
*Surface effects during translocation of double-stranded DNA in solid-state nanopores*

12:00 **Jim Tucker**, University of Birmingham
*Functional Photo-active and Redox-active Nucleic Acid Derivatives*

12:20 **Shuang Zhang**, University of Birmingham
*Metamaterials for topological photonics*

12:40 **Paramaconi Rodriguez**, University of Birmingham
*Expanding the boundaries of cathodic corrosion: The effective preparation of metal alloy nanoparticles and mixed oxides and their use as active electrocatalyst and photocatalyst*
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Agenda – Friday 14\textsuperscript{th}

13:00 Lunch and Poster viewing session

14:00 \textbf{Dirk Aarts}, University of Oxford
\textit{Directed self-assembly of Janus rods}

14:30 \textbf{Dave Smith}, University of Birmingham
\textit{A computational method for micro- and nano-scale structures in flow}

14:50 \textbf{Daniele Vigolo}, University of Birmingham
\textit{Continuous Isotropic-Nematic Transition in Amyloid Fibril Suspensions Driven by Thermophoresis}

15:10 \textbf{Francisco Fernandez-Trillo}, University of Birmingham
\textit{Peptide Chemistry and Nanotechnology to Synthesise Targeted and Responsive Antimicrobial Particles}

15:30 \textbf{Gi-Ra Yi}, Sungkyunkwan University
\textit{Colloidal Mesoporous Silica Nanoparticles as Strong and Degradable Adhesives for Biological Tissues}

16:00 Refreshments, Group discussions, and Closing remarks

17:00 Close