

Programme

Wednesday 4 February

08:30 Registration

09:00 Welcome and Introduction

Peter Schuetz, Unilever and **Tom Grinyer**, CEO, Institute of Physics

Session A: Modelling of Food Structure and Processing (Part I)

Chair: **Gleb Yakubov**, University of Leeds

09:20 (Invited) Insights into wheat milling and breadmaking: A few of my favourite things

Grant Campbell, University of Huddersfield

10:20 Solute Exclusion as the Basis for Periodic Ice Structures in Directional Freezing

Yuechuan Lin, Adolphe Merkle Institute, University of Fribourg

10:45 Coffee Break

Session A: Modelling of Food Structure and Processing (Part II)

11:15 Sugar-Fat Substituted Icings: Plausible possibility or just a piping dream?

Peter Cooper, University of Sheffield

11:35 Processing of food powders: from microscopic interactions to macroscopic powder bulk behavior

Roozbeh Valadian, Granutools

12:00 Benefits of IOP Membership

Allie Vickers, Institute of Physics

12:10 Flash Posters

12:30 Networking, Lunch and Posters

13:50 Sponsored Talk:

Banu Sezer, Anton Paar

Session B: Physics and Measurement for Future Food Systems and Processing (Part I)

Chair: **John Bows**, PepsiCo

14:00 (Invited) Ten years of Food Physics

Megan Povey, University of Leeds

14:50 Elemental and Microstructural Composition of Instant Pounded Yam Flour Evaluated by Energy Dispersive X-Ray Spectroscopy in a Scanning Electron Microscope System

Ekpereka Anajekwu, University of Surrey

15:10 Tea Break

Session B: Physics and Measurement for Future Food Systems and Processing (Part II)

- 15:50 (Invited) Who/what is food physics for?
Wilson Poon, University of Edinburgh
- 16:40 Multi-functional structuring behaviour of jellyfish biomatrices
Mie Pedersen, University of Southern Denmark
- 17:05 End of Session / Networking
- 17:30 Coach to Oulton Hall / Free Time
- 19:00 Conference Dinner
After Dinner Speaker: Peter Barham

Thursday 5 February

Session C: Food Colloids and Molecular Assemblies

Chair: **Peter Schuetz**, Unilever

- 08:30 (Invited) Colloidal Particles and Droplets in Granular Dispersions: Modulating Grain Interactions, Sintering and Flowability
Krassimir Velikov, Unilever
- 09:20 Multiscale Insights into Chocolate and Compound Matrices: Linking Refining Technology, Particle Size, and Fat Content to Rheological and Lubricating Behaviors
Clémence Gallery, Cargill France SAS
- 09:45 Soluble Amylose Chains Inhibit Gelatinisation and Retrogradation in Waxy Corn Starch
Gleb Yakubov, University of Leeds
- 10:05 Stretch, Aim, Shoot! Probing Polymer Network Structure During Elongational Flow Using Synchrotron CaBER-SAXS: In Pursuit of Improved Texture of Alternative Meat
Lathika Vaniyan, University of Nottingham
- 10:25 Coffee Break
- 10:55 Panel Discussion: The future of food science training and the impact on industry
Hosted by Gleb Yakubov, University of Leeds
- 11:55 Networking, Lunch and Posters

Session D: Soft Matter Physics: interfacial Phenomena, Foams & Emulsions & Rheology

Chair: **Megan Povey**, University of Leeds

13:20 A kinetic model fitting approach to quantify water mobility in mycoprotein paste using osmotic dehydration

Rosa Selene Espiricueta Candelaria, University of Nottingham

13:40 Multi Speckle – Diffusing Wave Spectroscopy – an accurate tool to study structural properties of dairy products

Roland Ramsch, Speclz

14:05 Shear induced structure formation of protein microparticles

Maïke Segers, University of Amsterdam

14:25 Tea Break

14:45 Award of ECR Prizes

15:00 Closing Remarks

15:25 End of Conference

Poster Programme

- P1 Biomimetic Modelling of Oral Mucus Microstructure for Understanding Lubrication and Taste Transport
Ashley Roye, King's College London
- P2 Crystallisation and Melting Behaviour of Blends of Cocoa Butter Equivalents and Milk Fat by Studied Small- and Wide-Angle X-ray Scattering
Molly Massey, University of Leeds
- P3 Extraction-Induced Structural Variations and Their Role in the Tribological Performance of Mung Bean Protein
Konstantina Eleni Christofilea, King's College London
- P4 Ideal production conditions of edible coatings for food using Gum Arabic stabilised oleogel emulsions
Darrell Cobon, University of Nottingham
- P5 Impact of Rice Protein and Low-Acyl Gellan Gum on the Physicochemical Properties and Starch Digestibility of Gluten-Free Orzo
Qingsu Liu, Division of Food, Nutrition and Dietetics, University of Nottingham
- P6 Influence of Psyllium Fibre on Starch Gelatinisation, Rheology, and Freeze–Thaw Stability
Gleb Yakubov, University of Leeds
- P7 Towards understanding the mouthfeel of chocolate: viscoelastic behaviour of tertiary sucrose-oil-water suspensions
Zohreh Honarvar Shahroudi, University of Leeds
- P8 Using Time Domain NMR relaxometry to investigate the microstructure of food matrices
Tatiana Monaretto, Oxford Instruments
- P9 Whey protein isolate nanofibrils: microscopy-based insights into concentration- and time-dependent self-assembly
Ezgi Gizli, University of Birmingham