Poster Presentations
Monday 24 March, Poster Session 1, Drinks Reception and Exhibition Commences

Poster No.	First Name	Last Name	Organisation	Paper Title	Topic
33	Peter	Adams	University of Leeds	Exploring the “concentration quenching” effect of small-molecule fluorophores and fluorescent proteins by using lipid membranes and electrophoresis	Imaging and single molecule biology
91	Caranfil	Anca	Université Paris-Saclay	Towards the modelling of chromosome movements during meiotic prophase I in Arabidopsis thaliana	Physics of the nucleus
34	Claudia	Andrews		Detergent-Induced Membrane Solubilization Monitored with Fluorescence De-Quenching	Imaging and single molecule biology
23	Matthew	Asker	University of Leeds	Fixation and extinction in fluctuating metapopulations subject to bottlenecks and migration	Evolution ecology and epidemiology
24	Rafael	Ayala Lara	Aalto University	Noise and global warming effects on the swimming dynamics of copepods.	Evolution ecology and epidemiology
35	Lu	Bai		Adaptive 3D Multiphoton Microscopy for Deeper and Higher Spatial Resolution Imaging	Imaging and single molecule biology
25	Alexander	Baker	University of Cambridge	Long term evolution of spatially structured microbial communities in controlled environments	Evolution ecology and epidemiology
62	Oleksandr	Baziei	The Universtiry of Edinburgh	Hybrid Computational Framework for Active Polar Fluids	Patterns, waves, transport, collective phenomena, and microswimmers
63	Francesco	Boccardo	University of Genoa	Communication-driven geometric bias enhances multi-agent olfactory search efficiency	Patterns, waves, transport, collective phenomena, and microswimmers
92	Andrea	Bonato	University of Strathclyde	Spontaneous unidirectional loop extrusion by SMC proteins	Physics of the nucleus
98	Ahmad	Boroumand		Scaling Behaviour of the Mechanics and Mesoscale Structure of Folded Protein Hydrogels	Protein structure, dynamics and interactions
54	Federico	Bosetto		In vitro expression and characterization of the heme binding domain of HasR from Pseudomonas aeruginosa	Immunity, resistance and host/pathogen dynamics
99	Victoria	Byelova	University of Leeds	From worm-like to blobby: coarse-graining protein unfolding in hydrogel networks	Protein structure, dynamics and interactions
36	Colleen	Caldwell	Vrije Universiteit Amsterdam	Untangling chromatin loops: uncovering biophysical characteristics of CCCTC-binding factor (CTCF)	Imaging and single molecule biology
64	Sam	Cameron	The Open University	Entropy production in spatially diffuse division-death dynamics.	Patterns, waves, transport, collective phenomena, and microswimmers
65	Jan	Cammann	Loughborough University	Active Spaghetti: Collective Organization in Filamentous Cyanobacteria	Patterns, waves, transport, collective phenomena, and microswimmers
1	Maria Cristina	Cannarsa	Sapienza University of Rome	Light-driven synchronization of optogenetic clocks	Clocks, timers and cell cycle dynamics
66	Jared	Carpenter	John Innes Centre	A mathematical investigation into how surfactants influence nanobubble stability in the plant xylem	Patterns, waves, transport, collective phenomena, and microswimmers
37	Thomas	Catley	University of Sheffield	Understanding the Mechanism of Novel Anticancer Drugs with Atomic Force Microscopy	Imaging and single molecule biology
67	Tristan	Cerdin	Sorbonne Université	Counting Active Particles in Boxes to Quantify their Dynamics	Patterns, waves, transport, collective phenomena, and microswimmers
100	Yean Ming	Chew	The University of Warwick	The subtle allostery of kinesin and tubulin	Protein structure, dynamics and interactions
93	Michael	Chiang	University of Edinburgh	Bridging-Induced Phase Separation and Loop Extrusion Drive Noise in Chromatin Transcription	Physics of the nucleus

5	Luca	Cocconi	Max Planck Institute For Dynamics And Self-organisation	Formation and decoding of morphogen gradients in developmental space-time	Differentiation and development
101	Noor	Daudi		Rab11-FIP1 interacts with Rab11-FIP5 in p53 mutant cancer cells.	Protein structure, dynamics and interactions
68	François	De Tournemire	University of Edinburgh	Role of Length Scales in Bacterial Swarming	Patterns, waves, transport, collective phenomena, and microswimmers
69	William	Durham	University of Sheffield	Twitching bacteria actively reverse direction to travel with their neighbours	Patterns, waves, transport, collective phenomena, and microswimmers
102	Timea	Feller		High extensibility of fibrin is supported by unstructured side region, while general mechanical behaviour may arise from random backbone structure	Protein structure, dynamics and interactions
6	Elisa	Floris	University of Graz	Uncoupling jamming- and adhesion-induced phase transition in embryonic tissues	Differentiation and development
70	Tonmoy	Gogoi	Tezpur University	Spontaneous Vortex Dynamics in Active Apolar Rods	Patterns, waves, transport, collective phenomena, and microswimmers
38	Sarah	Graham	University of York	Exploring the Frameshifting Element in SARS-CoV-2 Using smFRET	Imaging and single molecule biology
7	Philip	Greulich	University of Southampton	Emergent order in epithelial sheets by interplay of cell divisions and cell fate regulation	Differentiation and development
71	Simon	Hanna	University of Bristol	Optical trapping of active particles	Patterns, waves, transport, collective phenomena, and microswimmers
39	Tess	Harrison	Cardiff University	Correlative light electron microscopy of individual receptor trafficking in neurons enabled by background-free four-wave mixing imaging	Imaging and single molecule biology
72	Benedikt	Hartl	Tu Wien and Allen Discovery Center at Tufts University	Neuroevolution of Decentralized Decision-Making in N-Bead Swimmers leads to Scalable and Robust Collective Locomotion	Patterns, waves, transport, collective phenomena, and microswimmers
94	Oliver	Henrich	University of Strathclyde	oxDNA3 – Introducing Sequence-Specific Curvature and Elasticity into a Coarse-Grained DNA Model	Physics of the nucleus
27	Lluís	Hernández-Navarro	University of Leeds	Eco-evolutionary dynamics of cooperative antimicrobial resistance in time-varying environments with spatial structure	Evolution ecology and epidemiology
103	Katy	Hollands	University of York	Modelling DNA in Complex Topologies: The Role of Gyrase	Protein structure, dynamics and interactions
40	Libby	Holmes		UNTANGLING HOW THE SHELTERIN COMPLEX TANGLES DNA USING ATOMIC FORCE MICROSCOPY	Imaging and single molecule biology
41	Jamieson	Howard	University of York	Towards Unraveling Nucleoprotein interactions in Supercoiled DNA: Structural Dynamics of Model Catenanes	Imaging and single molecule biology
28	Kabir	Husain	University College London	The Noise is the Signal: Luria-Delbruck in High Resolution	Evolution ecology and epidemiology
73	Shunsuke	Ichii	The University of Tokyo	Enhanced Enzyme Diffusion as Maxwell's Demon: Selective Increase of Exothermal Reaction	Patterns, waves, transport, collective phenomena, and microswimmers
29	Claudia	Igler	University of Manchester	The biophysics of transcription factor binding shapes gene regulation	Evolution ecology and epidemiology
95	Antonio	Iorio	University of Dundee	Tension-dependent kinetochore-microtubule interactions	Physics of the nucleus
74	Purnima	Jain	Tata Institute of Fundamental Research	Inertial swimmer suspensions : Instability and turbulence	Patterns, waves, transport, collective phenomena, and microswimmers
75	Purnima	Jain	Tata Institute of Fundamental Research	Inertial swimmer suspensions : Instability and turbulence	Patterns, waves, transport, collective phenomena, and microswimmers
8	Mahendra Kumar	Jothi Letchumy	School of Physics And Astronomy	Fluorescence microscopy approaches to monitor cell-to-cell heterogeneity in the regulation of cardiomyocyte contractility	Differentiation and development
42	Aneeth	Kakkanattu Arunkumar	University of Exeter	Optoplasmonic single-molecule Whispering Gallery Mode (WGM) sensing platform for probing neurotransmitter-lipid membrane interactions	Imaging and single molecule biology

43	Praveen	Kalarickel Ramakrishnan	University College London	Towards accurate and efficient simulations of multiphoton fluorescence microscopy in mouse brain tissue using the beam propagation method	Imaging and single molecule biology
105	Dimitra	Katrantzi		Unveiling the structure of protein-based hydrogels by overcoming cryo-SEM sample preparation challenges	Protein structure, dynamics and interactions
106	Emma	Kerklingh		Advancing Biophysical Research with the C-Trap: Unveiling Molecular Mechanisms at the Single-Molecule Level	Protein structure, dynamics and interactions
2	Jan	Kocka	UCL	Topological States in Out-of-Equilibrium Allosteric Molecular Assemblies	Clocks, timers and cell cycle dynamics
44	Abhinav Paul	Kongari	The Francis Crick Institute	Optimisation of Electromagnetic Tweezers for Intracellular Force Application	Imaging and single molecule biology
45	Wolfgang	Langbein	Cardiff University	Interferometric Gated Off-Axis Reflectometry (iGOR) - ultrasensitive label-free tracking of nanoparticles and suspended membranes in three dimensions	Imaging and single molecule biology
9	Crisandro Allen	Lazo	University of The Philippines Manila	Thermodynamic Consequences of Bursty Gene Expression on the Mesoscopic Dynamics of Two-Node Gene Networks in Response to an External Forcing	Differentiation and development
76	Anna S.	Leathard	The University of Sheffield	Oscillations and collective behaviour in compartmentalised enzymatic reactions: Insights from numerical models	Patterns, waves, transport, collective phenomena, and microswimmers
55	Yael	Lebel		Excitable systems as a design principle of the immune system	Immunity, resistance and host/pathogen dynamics
56	Yael	Lebel		Excitable dynamics of flares and relapses in autoimmune diseases	Immunity, resistance and host/pathogen dynamics
46	Zekai	Li	Imperial College London	Identifying Molecular Interactions through Stochastic Modelling and Optimisation	Imaging and single molecule biology
57	Ruizhe	Li	University of Cambridge	Host cell cycle and ribosomal resources drive phage infection outcomes	Immunity, resistance and host/pathogen dynamics
10	Yi Ting	Loo	University of Warwick	Modelling pattern formation and self-organisation during neuruloid development	Differentiation and development
58	Carol	Lu	Arizona State University	Quantitative Modeling of Bacterial Population Kinetics in the Gut Microbiome of Individual C. elegans	Immunity, resistance and host/pathogen dynamics
11	Aileen	Magilin	John Innes Centre	Unlocking early flowering: The role of microRNAs in accelerating flowering time through small RNA transcriptomics	Differentiation and development
107	Vuk	Malis	University of York	Molecular Simulations of the Pyrenoid	Protein structure, dynamics and interactions
30	Daniel	Malumphy Montesdeoca	The University of Manchester	Expanding the P. bursaria-algal model for endosymbiosis	Evolution ecology and epidemiology
3	Smitha	Maretvadakethope	Imperial College London	Guidelines for the development of genetic AC-DC circuits	Clocks, timers and cell cycle dynamics
47	Eva	Martin-Cuevas	University of Sheffield	AFM-based approaches for RNA structure characterization	Imaging and single molecule biology
108	Giorgia	Marucci	HORIBA UK	Pioneering a New Era in Live Tissue Imaging with Fluorescence Lifetime Microscopy (FLIM)	Protein structure, dynamics and interactions
77	Sam	Matthews	University of York	Translational impact of rapid digital holographic microscopy.	Patterns, waves, transport, collective phenomena, and microswimmers
59	Conrad	McDonnell	University of Sheffield	Mechanically killing bacterial pathogens on nanostructured surfaces	Immunity, resistance and host/pathogen dynamics
78	Laura	Meissner	Uniwersytet Warszawski	Odd viscous Stokes flow around a single sphere	Patterns, waves, transport, collective phenomena, and microswimmers
96	Akinori	Miyamoto	Tokyo University of Agriculture and Technology	Physical property of the nucleoplasm revealed by creep-relaxation dynamics	Physics of the nucleus
12	Lewis	Mosby	The Francis Crick Institute and University College London	Evolving Tissue Pattern Scaling and Robustness Through Spatially Heterogeneous Feedback	Differentiation and development
13	Ander	Movilla Miangolarra	John Innes Centre	Epigenetic variability in induced pluripotency – How much does it contribute?	Differentiation and development

79	Daniel	Muzatko	University of Aberdeen	Fundamental limits on pattern formation in Turing-like reaction-diffusion systems	Patterns, waves, transport, collective phenomena, and microswimmers
80	Sharadhi	Nagaraja	Aalto University	Direct force measurement on swimming meso-organisms	Patterns, waves, transport, collective phenomena, and microswimmers
17	Tasmin	Nahar	Keele University	Development of magnetic force biotechnology for neural regeneration	Engineering tissues, organoids and biohybrids
81	Cara	Neal	University College London	A computational approach to simulating a three-sphere swimmer in a viscoelastic fluid modelled via the Giesekus constitutive law	Patterns, waves, transport, collective phenomena, and microswimmers
117	Isaac	Noble	University of Leeds	Gallium ions can target chronic Pseudomonas aeruginosa biofilm infections by hijacking its ferric PQS transport system	Physics of Disease
82	Devi Prasad	Panigrahi	University College London	Intermittent cell-cell attachments generate emergent fluid-like properties in migrating cell aggregates	Patterns, waves, transport, collective phenomena, and microswimmers
109	Auro	Patnaik	University of Edinburgh	Zero-shot Adaptation of Drug Diffusion Model for Fragment Elaboration.	Protein structure, dynamics and interactions
83	Luca	Pellegrino	Humanitas University	Reduction of bacterial adhesion on wrinkled surfaces under fluid shear	Patterns, waves, transport, collective phenomena, and microswimmers
14	Ella	Penny	John Innes Centre	Modelling The Meristem Transitions Underlying Development of Wheat Inflorescence Architecture	Differentiation and development
15	Julia	Pfanzelter	MPI-CBG Dresden	Mechanical coupling of tissue layers facilitates avian left-right symmetry breaking	Differentiation and development
84	Diogo	Pinto	University of Oxford	Spontaneous flows in confined epithelial cell sheets	Patterns, waves, transport, collective phenomena, and microswimmers
85	Praneet	Prakash	University of Cambridge	Dynamics of an Algae-Bacteria Inhomogeneous Active Suspension	Patterns, waves, transport, collective phenomena, and microswimmers
110	Chloe	Randall	University of Leeds	Using molecular dynamics simulations to understand PIEZO1 mechanosensitive ion channel in red blood cells	Protein structure, dynamics and interactions
60	Ankita	Ray	University of Sheffield	Feeling piconewton forces in single-molecule biology	Immunity, resistance and host/pathogen dynamics
18	Natalie	Richards	Durham University	pH-taxis Biohybrid Lipid Vesicles	Engineering tissues, organoids and biohybrids
97	Rodrigo	Rivas-Barbosa	University of Edinburgh	A Numerical Study of the Role of Hijacked Enhancers in B-Cell Cancers	Physics of the nucleus
48	Christian	Rodriguez-camargo	University College London	The role of vibrational molecular structure in entangled two photon absorption in biomolecules	Imaging and single molecule biology
61	Jordan	Romeyer Dherbey	University of Cambridge	Phage T7-E. coli AR3110 long-term coevolution experiment in a spatially structured environment	Immunity, resistance and host/pathogen dynamics
19	Kenza	Sackho	University of Surrey	Multimodal characterisation of an epicardial spheroid model	Engineering tissues, organoids and biohybrids
4	Jhonatan	Salgado	Qmul	Bacterial super-exponential growth and cell wall dynamics	Clocks, timers and cell cycle dynamics
111	Mona	Sarter	Isis Neutron And Muon Source	Probing Drug Pharmacokinetics - Can the impact of Cisplatin-like Anticancer Drugs on Protein Dynamics explain the difference in toxicity	Protein structure, dynamics and interactions
112	Sagar	Satpathi	University of Leeds	Understanding the Roles of Carotenoids in the Photophysics of Bacterial Light-Harvesting Protein Complexes	Protein structure, dynamics and interactions
31	Luca	Sesta	University of Basel	Detecting epistasis from SARS-CoV-2 genomic data	Evolution ecology and epidemiology
20	Jack	Shepherd		Understanding algal pyrenoid dynamics with coarse grained molecular dynamics	Engineering tissues, organoids and biohybrids
16	Gurpinder Singh	Sidhu	John Innes Centre	From model to crops: Determining the regulatory control of floral transition	Differentiation and development
49	Emma	Silvester	University of Oxford	DNA nanostructure tags for electron cryotomography	Imaging and single molecule biology

86	Gianmarco	Spera	University of Oxford	Nematic Torques in Scalar Active Matter	Patterns, waves, transport, collective phenomena, and microswimmers
21	Raveen	Tank	University of Manchester	Advancing Gynaecological Disease Research: A Fallopian Tube-on-a-Chip Model for STIC Progression and High-Grade Serous Ovarian Cancer Development	Engineering tissues, organoids and biohybrids
32	Anna	Tarodi		Modelling spatial competition in toxin-antitoxin producing bacterial populations	Evolution ecology and epidemiology
87	Mykola	Tasinkevych	Nottingham Trent University	How to steer catalytic nanoswimmers?	Patterns, waves, transport, collective phenomena, and microswimmers
113	Matthew	Thomas	University of Edinburgh	Investigating the Effects of Nucleosome Positional Irregularity on Chromatin using a Nucleosome-Scale Computational Model	Protein structure, dynamics and interactions
22	Conor	Treacy	King's College London	Multiphoton line-scanning FLIM for fast, dynamic 3D imaging of breast cancer spheroids.	Engineering tissues, organoids and biohybrids
88	Mehmet Can	Ucar	University of Sheffield	Self-organized guidance of mixed cell populations	Patterns, waves, transport, collective phenomena, and microswimmers
89	Rahil	Valani	University of Oxford	Nonlinear and chaotic dynamics of a microswimmer in confined flows	Patterns, waves, transport, collective phenomena, and microswimmers
50	Mo	Vali	University of Cambridge	Signalling Molecule Detection in Liquid Cultures Using Surface-Enhanced Raman Spectroscopy	Imaging and single molecule biology
114	Sam	Von Der Dunk	University of Oxford	Proteins evolve structural robustness to cope with locally chaotic folding landscape as predicted by ESMfold	Protein structure, dynamics and interactions
51	Jingyu	Wang	University of Oxford	OPTIMISED ADAPTIVE OPTICS ILLUMINATION STRATEGIES FOR THREE-PHOTON MICROSCOPY IN DEEP NEUROIMAGING	Imaging and single molecule biology
115	George	Weston	Durham University	A Machine Learning Approach to Identify Carbon Dioxide Binding Proteins for Sustainability and Health	Protein structure, dynamics and interactions
52	Sylvia	Whittle	University of Sheffield	Quantifying the Role of DNA Topology in Cas9 Activity using Atomic Force Microscopy	Imaging and single molecule biology
116	Maria	Zacharopoulou	University of Cambridge	Design of DNA-peptide nanostructures against intracellular targets in cancer	Protein structure, dynamics and interactions
90	Qi	Zhou	University of Edinburgh	Transport Dynamics of Red Blood Cells in the Microcirculation	Patterns, waves, transport, collective phenomena, and microswimmers