

## **Session Program**

**4-6 Jun 2025**

# **Bio-inspired Soft Matter 2025**

## **Plenary**

Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305  
Mayfield Road Edinburgh EH9 3JZ UK

## Wednesday 4 June

12:00

### **Plenary: Omar Saleh - (UC Santa Barbara) - Diverse and entangled DNA droplets**

**Session** |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

12:40

14:00

### **Plenary: Yair Augusto Gutiérrez Fosado (University of Edinburgh) - Topological viscoelasticity: when DNA nanostars and amorphous materials form loopy networks**

**Session** |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

14:40

15:40

### **Plenary: Lorenzo Di Michiele (University of Cambridge) - Genetically encoded designer RNA condensates and organelles**

**Session** |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

16:20

## Thursday 5 June

09:40

### Plenary: Elisha Krieg (Leibniz Institute for Polymer Research Dresden) - Assembling a true Olympic Gel from >16,000 combinatorial DNA rings

Session |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

10:20

10:40

### Plenary: Michael Lang (Leibniz Institute of Polymer Research in Dresden) - Olympic gels: a model system for understanding permanent entanglements

Session |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

11:20

12:00

### Plenary: Rebecca Schulman (Johns Hopkins University) - Biomolecular Fields

Session |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

12:40

14:00

### Plenary: Tyler Shendruk (University of Edinburgh) - Dynamics of Polymers in Active Nematic Flows

Session |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

14:40

15:00

### Plenary: Frederik Schaefelberger (KTH Royal Institute of Technology) - Metal Chelate Rotaxanes for Biosensing and Therapeutics

Session |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

15:40

16:20

### Plenary: Susana Rocha (KU Leuven) - Seeing is believing: microscopic techniques to uncover cell-matrix interactions in biomimetic hydrogels

Session |

**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

17:00

## Friday 6 June

10:30

### **Plenary: Maitane Muñoz Basagoiti (ISTA, Austria) - Bottom-up design of artificial machines with programmable matter: Catalysis and Treadmilling**

**Session** |**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

11:10

11:50

### **Plenary: Dwaipayan Chakrabarti (University of Birmingham) - Colloidal Advanced Materials: Building Them Like Biology**

**Session** |**Location:** Higgs Centre for Theoretical Physics James Clerk Maxwell Building, 4305, Mayfield Road Edinburgh EH9 3JZ UK

12:30

14:00

### **Plenary: Erica Del Grosso - (University of Rome Tor Vergata) - Responsive DNA supramolecular structures**

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14:40