

**November 20 (Wed)**

**Poster Session**

**15:20-17:20**

**Poster size: A0 (board width 900 mm)**

### **Mathematics**

- 1-1 Toky Andriamanalina** (University of Potsdam)  
[Unknotting 3-periodic entanglements of filaments and nets](#)
- 1-2 Martha Dunham** (Independent Researcher)  
[Macro Scale Gyroid Applications](#)
- 1-3 Hou-Hsun Ho** (National Taiwan University)  
[Discrete Gyroid Structures: Defect-Driven Tiling and Analogies with Zeolite Frameworks](#)
- 1-4 Sonia Mahmoudi** (Tohoku University)  
[Construction and Classification of Hyperbolic Diagrams and their Triply Periodic Weavings & Polycatenanes via Mapping to the Gyroid](#)
- 1-5 Yukihiro Nishikawa** (Kyoto Institute of Technology)  
[Curvature Estimation based on Distance Conversion of a 3D image](#)

### **Physics**

- 2-1 Greg Grason** (University of Massachusetts Amherst)  
[Design economy and assembly of size-programmable triply-periodic polyhedra from addressable nanotriangles](#)
- 2-2 Matthias Himmelmann** (University of Potsdam)  
[Exploring the Homogeneity of Disordered Minimal Surfaces](#)
- 2-3 Suman Kulkarni** (University of Pennsylvania)  
[On characterizing the topology and geometry of imperfect gyroids.](#)
- 2-4 Vira Raichenko** (University of Potsdam)  
[Cocoon Microstructures through the Lens of Topological Persistence](#)
- 2-5 Hideaki Tanaka** (Sango Co., Ltd.)  
[Programmable Self-Assembly of Nanoplates into Bicontinuous Nanostructures](#)
- 2-6 Kana Yamamoto** (Kindai University)  
[Hexagulation numbers: magic numbers on the gyroid surfaces](#)

### **Chemistry**

- 3-1 Noriyoshi Arai** (Keio University)  
[Molecular understanding of mechanical properties of Archimedean tiling through star terpolymer thin film](#)
- 3-2 Yifei Cheng** (Fudan University)  
[Understand the Relative Stability of Single-Gyroid to Double-Gyroid in AB-type Block Copolymer](#)
- 3-3 Qingshu Dong** (Fudan University)  
[Hybrid Structures Formed by Asymmetric ABC-type Block Copolymers](#)

- 3-4 **Takashi Honda** (Ochanomizu University)  
[\*Molecular Weight Dependence of Domain Spacing in the Double Gyroid Structure of ABC Triblock Copolymers\*](#)
- 3-5 **Shuto Ito** (Biomatter Lab)  
[\*Polymer Membrane Tensegrity: Inverse Design of Polymer Films Morphing into Arbitrary 3D Surfaces with Digital Photopatterning Technique\*](#)
- 3-6 **Shinichi Sakurai** (Kyoto Institute of Technology)  
[\*Changes in two-dimensional small-angle X-ray scattering pattern by uniaxial stretching of a double-gyroid block copolymer\*](#)
- 3-7 **Qingliang Song** (Fudan University)  
[\*Hierarchical Self-assembly Behaviors of ABC-Type Bottlebrush Copolymers\*](#)
- 3-8 **Jiro Suzuki** (High Energy Accelerator Research Organization (KEK))  
[\*Gyroid Interface from Symmetric ABCD Tetrablock Quarterpolymers by Monte Carlo Simulation\*](#)
- 3-9 **Naoya Torikai** (Mie University)  
[\*Interfacial Segment Distribution of a Diblock Copolymer in a Polymer Thin Film\*](#)
- 3-10 **Xintong You** (Fudan University)  
[\*Hierarchical gyroid structures in frustrated ABC triblock copolymers\*](#)
- 3-11 **Xiangbing Zeng** (University of Sheffield)  
[\*Stage-wise Pre-assembly in Melt Prior to Liquid Crystals\*](#)

## **Biology**

- 4-1 **Chisaki Kitajima** (Kyushu University)  
[\*Structures made by termites and spiders\*](#)
- 4-2 **Allan Millstead** (Murdoch University)  
[\*Order and disorder of the microstructures of the Cidaris rugosa sea urchin stereom\*](#)
- 4-3 **Ryosuke Ohnuki** (Tokyo University of Science)  
[\*Chirality of gyroid-type photonic crystals in the scale of Teinopalpus Imperialis\*](#)

## **Engineering**

- 5-1 **Abdulaziz Alsenafi** (Kuwait University)  
[\*Non-Fourier Computations of Heat and Mass Transport in Nanoscale Solid-Fluid Interactions Using the Galerkin Finite Element Method\*](#)
- 5-2 **Ziad Saghir** (Toronto Metropolitan University)  
[\*Heat enhancement using Gyroid Structure and metal foam for Different Porosity and Cooling fluids: Experimental and Numerical Approaches\*](#)
- 5-3 **Kaixin Yan** (Beihang University)  
[\*Coupling Additive Manufacturing with Triply Periodic Minimal Surface Enable Next-Generation Aero-Engine Heat Exchangers\*](#)
- 5-4 **Takumi Yano** (Kindai University)  
[\*Sound Insulation Properties of Gyroids at Normal Incidence\*](#)