

Guest Country Symposium France: Soft, Active and Alive: Emergent Properties in Living Matter (SYGF)

jointly organised by
the Biological Physics Division (BP),
the Chemical and Polymer Physics Division (CPP),
the Dynamics and Statistical Physics Division (DY), and
the Physics of Socio-economic Systems Division (SOE)

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Biological systems are composed of molecular components similar to those found in soft matter, yet they exhibit extraordinary and often extreme material properties that are essential for the robustness of living cells, tissues, and populations. These remarkable properties frequently emerge from the multiple hierarchical levels of organization intrinsic to living matter. This guest country symposium with speakers from France and Germany discusses the active and hierarchical principles that apply across diverse biological scales, from molecular assemblies to cells, tissues and even swarms of animals, and their role in biology's unique emergent properties.

Overview of Invited Talks and Sessions

(Lecture hall HSZ/AUDI)

Invited Talks

SYGF 1.1	Wed	15:00–15:30	HSZ/AUDI	Liquid crystal geometries in type I collagen-based tissues — •NADINE NASSIF
SYGF 1.2	Wed	15:30–16:00	HSZ/AUDI	Self-organization of the cytoplasm by physical instabilities — •JAN BRUGUES
SYGF 1.3	Wed	16:00–16:30	HSZ/AUDI	From morphogenesis to space partitioning by microtubules and molecular motors. — •MANUEL THERY
SYGF 1.4	Wed	16:45–17:15	HSZ/AUDI	More than the sum: how composite interfaces govern function — •ALBA DIZ-MUÑOZ
SYGF 1.5	Wed	17:15–17:45	HSZ/AUDI	Swimming and Swarming of Intelligent Active Particles — SEGUN GOH, PRIYANKA IYER, RAJENDRA SINGH NEGI, •GERHARD GOMPPER
SYGF 1.6	Wed	17:45–18:15	HSZ/AUDI	Perturbing the collective motion of fish with challenging environments — •AURÉLIE DUPONT

Sessions

SYGF 1.1–1.6	Wed	15:00–18:15	HSZ/AUDI	Guest Country Symposium France: Soft, Active and Alive: Emergent Properties in Living Matter (SYGF)
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