

# Scientific program

October 01

09:00 - 09:15	Introduction
09:15 - 11:00	Session 1
09:15- 09:45	<i>INVITED TALK</i> <b>Mathieu COPPEY (Institut Curie, France)</b> - <i>RhoGTPase signaling from molecular to cellular scales</i>
09:47- 10:02	<i>SHORT TALK</i> <b>Yonit MAROUDAS SACKS (Technion University, Israel)</b> - <i>Topological defects in the nematic order of actin fibres as organization centres of Hydra morphogenesis</i>
10:02 - 10:07	Short Break
10:07- 10:37	<i>INVITED TALK</i> <b>Guillaume CHARRAS (University College London, UK)</b> - <i>Out-of-plane shape changes in epithelial monolayers</i>
10:39- 10:54	<i>SHORT TALK</i> <b>Kristina STAPORNWONGKUL (Francis Crick Institute, UK)</b> - <i>Patterning and growth control in vivo by an engineered GFP gradient</i>
10:55 - 11:15	Break
11:15 - 12:35	Session 2
11:15- 11:45	<i>INVITED TALK</i> <b>Matthias KASCHUBE (FIAS, Germany)</b> - <i>The dynamics of internally generated brain activity</i>
11:47- 12:02	<i>SHORT TALK</i> <b>Nicolas TIZON ESCAMILLA (CPT, France)</b> - <i>Deterministic and stochastic branching rules govern dendritic morphogenesis of sensory neurons</i>
12:04- 12:34	<i>INVITED TALK</i> <b>Marie MANCEAU (CIRB, France)</b> - <i>Cell dynamics of self-organising feather pattern regularity in birds</i>

12:35 - 14:00	Lunch Break
14:00 - 15:40	Session 3
14:00- 14:30	<i>INVITED TALK</i> <b>Bénédicte SANSON (Cambridge University, UK)</b> - <i>Intrinsic and extrinsic forces in tissue extension during Drosophila gastrulation</i>
14:32- 14:47	<i>SHORT TALK</i> <b>Aurélien ROUX (UNIGE, Switzerland)</b> - <i>Integer topological defects organize active tissue morphogenesis</i>
14:47 - 14:52	Short Break
14:52- 15:22	<i>INVITED TALK</i> <b>Thierry EMONET (Yale University, USA)</b> - <i>Are cells information limited?</i>
15:24- 15:39	<i>SHORT TALK</i> <b>Navish WADHWA (Harvard University, USA)</b> - <i>Physics behind the autonomous assembly of the bacterial flagellar motor</i>
15:40 - 16:00	Break
16:00 - 17:35	Session 4
16:00- 16:30	<i>INVITED TALK</i> <b>Massimo VERGASSOLA (UC San Diego, USA)</b> - <i>Flows and waves in the early embryogenesis of Drosophila melanogaster</i>
16:32- 16:47	<i>SHORT TALK</i> <b>Effie BASTOUNIS (University of Washington, USA)</b> - <i>Mechanically driven cellular competition promotes the collective extrusion of bacteria-infected epithelial cells</i>
16:47 - 16:52	Short break
16:52- 17:42	<i>KEYNOTE SPEAKER</i> <b>Rob PHILLIPS (Caltech, USA)</b> - <i>The Other Bohr, Allostery and Biology's Greatest Model</i>

# Scientific program

## October 02

<b>09:15 - 10:54</b>	<b>Session 5</b>
09:15- 09:45	<i>INVITED TALK</i> <b>Matthias MERKEL (CPT, France)</b> - <i>What can stabilize oriented tissue deformation?</i>
09:47- 10:02	<i>SHORT TALK</i> <b>Rashmi PRIYA (MPI- HLR, Germany)</b> - <i>How morphogenetic patterns and cell fate emerge stochastically during organogenesis?</i>
<b>10:02 - 10:07</b>	<b>Short Break</b>
10:07- 10:37	<i>INVITED TALK</i> <b>German SUMBRE (ENS Paris, France)</b> - <i>Whole-brain dynamics operate at a critical regime</i>
10:39- 10:54	<i>SHORT TALK</i> <b>Pauline MONNOT (Sorbonne University, France)</b> - <i>Mechanical forces exerted by the forming eye control neuronal movements and axon growth during olfactory placode morphogenesis</i>
<b>10:55 - 11:15</b>	<b>Break</b>
<b>11:15 - 12:20</b>	<b>Session 6</b>
11:15- 11:45	<i>INVITED TALK</i> <b>Jacqueline TABLER (MPI-CBG, Germany)</b> - <i>Cellular behaviors driving mammalian skull morphogenesis</i>
11:47- 12:02	<i>SHORT TALK</i> <b>Sundar NAGANATHAN (EPFL, Switzerland)</b> - <i>Precision of left-right symmetry in somite shape and size emerges from local tissue mechanics</i>
12:04- 12:19	<i>SHORT TALK</i> <b>Efe ILKER (Institut Curie, France)</b> - <i>Evolution of confluent gut epithelium under fast cyclic stretching</i>

<b>12:20 - 13:40</b>	<b>Lunch Break</b>
<b>13:40 - 15:20</b>	<b>Session 7</b>
13:40- 14:10	<i>INVITED TALK</i> <b>Mathieu PIEL (Institut Curie, France)</b> - <i>Volume modulation in deforming cells</i>
14:12- 14:27	<i>SHORT TALK</i> <b>Akankshi MUNJAL (Harvard medical School, USA)</b> - <i>Patterned ECM hydraulics and epithelial contractility shapes the inner ear</i>
<b>14:27 - 14:32</b>	<b>Short Break</b>
14:32- 15:02	<i>INVITED TALK</i> <b>Sander TANS (AMOLF, Netherlands)</b> - <i>The role of motility in bacterial coexistence</i>
15:04- 15:19	<i>SHORT TALK</i> <b>Alexander MIETKE (MIT, USA)</b> - <i>The key role of external mechanical constraints during morphogenesis</i>
<b>15:20 - 15:40</b>	<b>Break</b>
<b>15:40 - 16:30</b>	<b>Session 8</b>
15:40- 16:30	<i>KEYNOTE SPEAKER</i> <b>Lisa MANNING (Syracuse University, USA)</b> - <i>Second-order rigidity may drive emergent mechanics in biological tissues</i>
<b>16:30 - 16:40</b>	<b>Closing remarks</b>