

4th International Course on Multiscale Integration in Biological Systems November 4-10, 2021

Link Teams to access seminars online: [4th course on Multiscale integration in Biological System](#)

	Thursday, November 4	Friday, November 5		Monday, November 8	Tuesday, November 9	Wednesday, November 10	
	Statistical / Dynamical Systems Chairs AM: Pascal Martin PM: Pierre Sens	Collective effects / Mechano biology Chairs AM: Pascal Silberzan PM: Hervé Isambert		Control in biology / Systems biology Chairs AM: Pascal Martin PM: Mathieu Coppey	Machine learning / Image analysis Chairs AM: Mathieu Coppey PM: Pierre Sens	Evolution Chairs AM: Aleksandra Walczak PM: Pascal Hersen	
9h00 - 10h30	Frank Jülicher Max Planck Institute, DE Physics of Active Droplets	Guillaume Salbreux University of Geneva, CH Connecting scales in tissue morphogenesis		Yannick Rondelez ESPCI, FR Bottom-up experimental models of cellular networks	Hervé Isambert Institut Curie, FR Unsupervised learning of biological and clinical networks	Anne-Florence Bitbol EPFL, CH Inferring interaction partners and evolutionary constraints from protein sequences	COURSES Live-streaming & recorded
10h30 - 11h00	Coffee-break	Coffee-break		Coffee-break	Coffee-break	Coffee-break	
11h00 - 12h30	Kinneret Keren (online) Technion - Israel Institute of Technology, IS Physical aspects of Hydra Morphogenesis	Wilson Poon (online) University of Edinburgh, UK Towards a physics of death: understanding nature's "circulatory economy"		Mustafa Khammash ETH Zürich, CH An Introduction to Control Theory and Cybergenetics	Christophe Zimmer Institut Pasteur, FR Introduction to deep learning and application to multiscale cellular imaging	Guy Bunin Technion - Israel Institute of Technology, IS Calculating properties of diverse ecological communities	
12h30 - 14h00	Lunch	Lunch	WEEKEND BREAK	Lunch	Lunch	Lunch	
14h00 - 15h00	Claude Loverdo Sorbonne University & CNRS, FR Interactions of antibodies and bacteria in the digestive tract	Isabelle Bonnet Institut Curie, FR Competition between normal cells and cells expressing an oncogene		Peter Swain (online) University of Edinburgh, UK Less is more: controlling glucose transport in yeast	Cédric Allier CEA LETI, FR Deep learning for cell analysis: from image to quantitative representation	Gilles Charvin IGBMC & CNRS, FR The sleeping beauty : intro into quiescence in budding yeast	SEMINARS Live-streaming & recorded
15h00 - 15h30	Coffee-break	Coffee-break		Coffee-break	Coffee-break	Coffee-break	
15h30 - 16h30	Yolanda Schaerli (online) University of Lausanne, CH Synthetic gene regulatory networks for spatiotemporal pattern formation	Jean-Léon Maître Institut Curie, FR Mechanics of blastocyst morphogenesis		Pascal Hersen Institut Curie, FR Dynamic Control of Gene Expression	Julien Mozziconacci MNHN, FR Deep learning for genomics	Salima Rafai CNRS, Grenoble University, FR Flowing Active Suspensions: Plankton as a model active particle	
16h30 - 16h45	Break	Break		Break	Break		ATTENDEE PRESENTATION & POSTERS In-Person only
16h45 - 17h15	Flash talks	Flash talks		Attendee presentations (15' each)	Attendee presentations (15' each)		
17h15 - 18h15	Attendee presentations (15' each)	Posters					
18h15 - 21h00		Social Activity					

Lectures: Amphi Curie (**sanitary pass verified**) and live streaming (Microsoft Teams) / **Coffee Break:** Salle Joliot / **Lunch & Social activity:** Cour Lhomond (tent) / **Posters:** Green Cafe.