

Program

Sunday, 2 August 2015, Day of Arrival

Krogerup Højskole is open from 15:00 (3 pm). Dinner from 18:00-19:00 (6-7 pm)

Monday, 3 August 2015

Time	Speaker
9:00-9:25	G. V. Shivashankar "Geometric Control of Genome Programs"
9:25-9:50	Susanna Manrubia "Viral war games: When evolution defeats imagination"
9:50-10:15	Ricard Sole "Major synthetic transitions"
10:15-11:15	Coffee Break
11:15-11:40	Madan Babu TBA
11:40-12:05	Lone Simonsen: "From smallpox to Ebola: pandemics, epidemics and unanswered quantitative issues"
12:05-15:00	Lunch
15:00-15:25	Kenn Gerdes "Magic SpoT, Stochasticity and Bacterial Multidrug Tolerance"
15:25-15:50	Stefan Klumpp: "On the evolution of bacterial persistence"
15:50-16:40	Coffee Break
16:40-17:05	Ken Dill "Simple models of cell mechanisms and a search for optimization principles."
17:05-17:30	Alexandra Walczak "Optimal immune repertoires"
17:30-20:00	Dinner
20:00-	Poster session (Posters will be on display all time)

Tuesday, 4 August 2015

9:00-9:25	Martin Howard "Self-organized equal spacing of intracellular cargo: the plasmid parABC system in E. coli"
9:25-9:50	Guido Tiana "Structure and function in chromatin domains"
9:50-10:15	Joel Stavans "A day in the life and development of a one-dimensional organism"
10:15-11:15	Coffee Break
11:15-11:40	Kunihiko Kaneko "Theory of Biological Robustness and Plasticity: Fluctuation and Response in Adaptation and Evolution"
11:40-12:05	Anne Grapin-Botton "Modelling differentiation decisions during mouse organogenesis"
12:05-15:00	Lunch
15:00-15:25	Sanjai Jain "Growth-division dynamics and global regulation in bacteria"
15:25-15:50	Marc Hutt "Network-enhanced interpretation of gene expression profiles"
15:50-16:40	Coffee Break
16:40-17:05	Jordi Garcia-Ojalvo "Spatiotemporal selforganization of bacterial populations"
17:05-17:30	Jeroen van Zon "Variability and robustness in C. elegans development"
17:30-20:00	Dinner
20:00- 20:50	Short talks (8 min+2 min question) <ol style="list-style-type: none"> 1. Parth Pandey "Bacterial cell size and growth rate" 2. Cecilia Loevkvist "Spatial Collaboration Between CpG Sites Can Provide Methylation Patterning and Epigenetic Memory" 3. Hong-Yan Shih "Emergence of Rapid Evolution from Demographic Stochasticity" 4. Takashi Shimada "A complexity-robustness relation of evolving open systems" 5. Florian Uekermann "Cross immunization and ageing of old influenza strains"

Wednesday, 5 August 2015

9:00-9:25	Nigel Goldenfeld "Models of Early Life"
9:25-9:50	Tamas Czaran "The RNA World and the wake of life on Earth"
9:50-10:15	Jan Haerter "The assembly rules and how stable food webs can evolve"
10:15-11:15	Coffee Break
11:15-11:40	Martin Ackermann "Microbial strategies in uncertain environments"
11:40-12:05	Ala Trusina "Asymmetric Damage Segregation: when stress and history matter"
12:05-15:00	Lunch
15:00-15:25	Stefan Bornholdt TBA
15:25-15:50	Sergei Maslov "Models of Growth in Collapsing Environments: Kill-the-Winner, Kill-the-Loser, and Kill-the-King"
15:50-16:40	Coffee Break
16:40-17:05	Leihan Tang "Sequential pattern formation as a front instability problem"
17:05-17:30	Mateo Marsili "The importance of being critical"
17:30-20:00	Dinner
20:00-20:50	Short talks (8min+2min questions) <ol style="list-style-type: none"> 1. Vaibhav Sinha "Optimal Strategies in Competing Bacterial Viruses" 2. Tetsuhiro Hatakeyama "Reciprocity between robustness of period and plasticity of phase" 3. Simon Van Vliet "The Influence of Cell-Cell Interactions on Cellular Decision Making in Bacteria" 4. Masayo Inoue "Network design principles and response sensitivity of components" 5. Victor Olariu "Nanog, Oct4 and Tet1 interplay in establishing pluripotency"

Thursday, 6 August 2015

Time	Speaker
9:00-9:25	Ulrich Gerland "A physical analysis of nucleosome positioning"
9:25-9:50	Henrik Jönsson "Understanding Development: a Computational Morphodynamics approach"
9:50-10:15	Mario Nicodemi "The large scale features of chromosome organization in the cell nucleus"
10:15-11:15	Coffee Break
11:15-11:40	Joachim Mathiesen "Cyclic interaction and diversity in ecosystems"
11:40-12:05	Tatsuo Shibata "Scaling of the dorsal-ventral patterning in Xenopus embryo"
12:05-16:15	Extended break
16:15–16:40	Marco C. Lagomarsino "Cell-size fluctuations and cell cycle control in E. coli"
16:40-17:15	Joachim Krug "Adaptive walks and evolutionary accessibility"
17:05-17:30	Simone Pigolotti TBA
17:30-	Conference Dinner

Workshop & Summer School Models of Life, Krogerup Højskole, 2 – 8 August 2015

Friday, 7 August 2015

Time	Speaker
9:00-9:25	No talk
9:25-9:50	Erwin Frey TBA
9:50-10:15	Michael Laessig "Sex or simplicity: evolutionary limits to microbial complexity"
10:15-11:15	Coffee Break
11:15-11:40	Vincent Hakim "Progressive DNA methylation and Luria-Delbrück processes"
11:40-12:05	Erik Aurell "Against maxentropy"
12:05-15:00	Lunch
15:00-15:25	Steen Pedersen "A tale about Goldilocks and Gene expression in Bacteria (at least in <i>E. coli</i>)"
15:25-15:50	Kim Christensen "Simple Model for Atrial Fibrillation"
15:50-16:40	Coffee Break
16:40-17:05	Genevieve Thon "Establishment of chromatin domains"
17:05-17:30	Sandeep Krishna "Diversity in bacteria-virus ecosystems is facilitated by weak defences against viruses"
17:30-	Dinner / Bonfire with drinks?

Saturday 8 August 2015, Day of Departure

	Breakfast
	Departure latest at 11:00