

Seminar: BioNano-Physics by Examples

Presentations in Wintersemester 2011/2012

Wednesday, 15:00-17:00 Auf der Morgenstelle 10 (Gebäude C) Room C7 P22

Date	Speaker	Title
12.10.		
19.10.	Richard Neher	DNA packing into virus capsids <i>[Grayson et al. Real-time observations of single bacteriophage lambda DNA ejections in vitro. Proceedings of the National Academy of Sciences of the United States of America (2007) vol. 104 (37) pp. 14652-7]</i>
26.10.	Fajun Zhang	Protein crystallization: some physical insights (I)
02.11.	Fajun Zhang	Protein crystallization: some physical insights (II)
09.11.	Richard Neher	Gene regulation, diffusion, and developmental patterning <i>[Gregor et al. Stability and nuclear dynamics of the bicoid morphogen gradient. Cell (2007) vol. 130 (1) pp. 141-52]</i>
16.11.	Richard Neher	Oscillations in Biology <i>[Di Talia et al. The effects of molecular noise and size control on variability in the budding yeast cell cycle. Nature (2007) vol. 448 (7156) pp. 947-51]</i>
	Cancelled	<i>Charvin et al. Forced periodic expression of G1 cyclins phase-locks the budding yeast cell cycle. Proceedings of the National Academy of Sciences of the United States of America (2009) vol. 106 (16) pp. 6632-7]</i>
23.11.	Richard Neher	Self-organized compartmentalization: liquid-liquid phase transitions within cells <i>[Brangwynne et al. Germline P granules are liquid droplets that localize by controlled dissolution/condensation. Science (2009) vol. 324 (5935) pp. 1729-32]</i>
30.11.	Frank Schreiber	Fractals in nature
07.12.	Fajun Zhang	Biofouling and anti-biofouling at interface
14.12.	Frank Schreiber	Growth processes and growth laws in nature (from bacteria to dinosaurs to snowflakes)
21.12.	Richard Neher	Polarity of tissues: Why do all the hairs point in the same direction? <i>[Ma et al. Fidelity in planar cell polarity signalling. Nature (2003) vol. 421 (6922) pp. 543-7]</i> <i>Burak and Shraiman. Order and stochastic dynamics in Drosophila planar cell polarity. PLoS Comput Biol (2009) vol. 5 (12) pp. e1000628]</i>
11.01.	F. Zhang/Student?	DNA condensation, coacervation
18.01.	Richard Neher	How do cells get their shape? <i>[Campàs and Mahadevan. Shape and dynamics of tip-growing cells. Curr Biol (2009) vol. 19 (24) pp. 2102-7]</i>
25.01.	Richard Neher	The folding of the gut <i>[Savin et al. On the growth and form of the gut. Nature (2011) vol. 476 (7358) pp. 57]</i>