MPIDS Colloquium



Functional collective dynamics in cellular populations

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In recent years we have gained an increasing knowledge of the mechanisms underlying the emergence of collective behavior in biological systems. The next step is to establish the functional significance of these collective phenomena. In this talk I will discuss examples of temporal self-organization recently observed in cellular populations that arise exclusively as a result of the interaction between cells. The examples to be discussed will include systems ranging from bacterial biofilms to networks of neurons. In all the examples, the collective dynamics described have a well-defined function that is critical for the sustainability of the population itself, or for the organism in which the population is embedded.

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MPIDS, Seminar room 0.77, Am Faßberg 17, Göttingen

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