



Quantum Efficiency Seminar und Colloquium

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Transport efficiency and chromophores displacements using complexity theory

ABSTRACT: Complexity is found in many areas of modern science going from social sciences to physics and chemistry. Recently, network science emerged as a unifying framework to embed real-world heterogeneous systems into mathematical tractable objects. Here, we present the basic concepts to interpret the relation between chromophores spatial displacements and quantum efficiency in terms of complex networks. Preliminary results showed that a large fraction of structures improve their efficiency in a continuous way, building a funnel in the efficiency space. Outside the main core of the funnel, small displacements from high efficient structures destroy most of the transport. Our results anticipate a more rational understanding of the inherent rules to build quantum efficient systems.

Date:

Tuesday, November 29th, 2011 14:15 pm

Location:

Lecture Hall 1, Hermann-Herder-Str. 3, Freiburg

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