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Max-Delbrück-Centrum für Molekulare Medizin, Otto-von-Guericke-Universität
Magdeburg, Physikalisch-Technische Bundesanstalt, Technische Universität Berlin,
Universität Potsdam

Berlin Center for Studies of Complex Chemical Systems

Seminar

Complex Nonlinear Processes in Chemistry and Biology

Honorary Chairman: G. Ertl

Organizers: M. Bär, C. Beta, H. Engel, M. Falcke, M. J. B. Hauser, J. Kurths, A. S. Mikhailov, P. Plath, L. Schimansky-Geier, and H. Stark

Friday, November 21, 2014, at 16:00

Address: Richard-Willstätter-Haus, Faradayweg 10, 14195 Berlin, U-Bahnhof Thielplatz (U3)

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Proposed Principles of Maximum Entropy Production

Some form of "maximum local entropy production principle" (MEPP) has been applied to systems where this optimization principle is supposed to compensate for the lack of structural information and measurements about complex systems, even systems as complex and as little characterized as the whole biosphere or the atmosphere of the earth. We select a number of claims from a few well-known papers that advocate this principle and we show that they are in some error, with the help of simple examples of well-known chemical and physical systems. These erroneous interpretations can be attributed to ignoring well-established and verified theoretical results.

J. Ross, A. D. Corlan, and S. C. Müller, *J. Phys. Chem. B* **116**, 7858-7865 (2012)