



ESPCI  
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## Séminaire PMMH

Bureau d'Études, Bâtiment L, 2<sup>ème</sup> étage

Vendredi 4 mars 2016, 11h00-12h00

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#### On the foundations of statistical mechanics : Concepts and applications

Whenever basic hypothesis such as ergodicity are not satisfied, the Boltzmann-Gibbs statistical mechanics, based on the additive Boltzmann-Gibbs entropy, can yield results that are not confirmed by experiments. A more general theory, namely nonextensive statistical mechanics, based on nonadditive entropies, satisfactorily cover a wide class of such anomalous, though ubiquitous, situations in natural, artificial and social systems. A brief review of the present status of this thermostatistical approach will be presented.

Bibliography : see <http://tsallis.cat.cbpf.br/biblio.htm>