Gibbs Entropy Postulate: from Thermodynamics "Beyond" Local Equilibrium to Biomedical Applications

Jose Vilar C.5
Biophysics Unit (CSIC-UPV/EHU), University of the Basque Country, Bilbao, Bizkaia, Spain
j.vilar@ikerbasque.org

The Gibbs entropy postulate is a cornerstone of mesoscopic non-equilibrium thermodynamics. I will discuss its general applicability to a wide diversity of systems that depart from the traditional local equilibrium assumption. The applicability extends from physical processes, such as inertial effects in diffusion, to biomedicine, including the characterization of leukemia on multidimensional morphological and molecular landscapes.

References