NANO-STABILITY IN TERMS OF TSALLIS ENTROPY

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Abstract: For the past years different types of entropy from the classical Shannon-Gibbs-Botzmann have been used to theoretically explain phenomena that escape treatment with classical thermodynamics. Alongside them, Hill founded a thermodynamics adapted to small systems. We describe results obtained in the field of equilibrium stability in thermodynamics using Tsallis entropy and we review the connection between Hill's nanothermodynamics and the Tsallis entropy, as it was recently established.

Key words: nonextensive thermodynamics, nonextensive entropies, Tsallis entropy, thermodynamic stability

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