**Entropic Stochastic Resonances in Biological Systems at Mesoscale**
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As interconnected, flexible system it is, bio-soft matter manifests its own unique transition dynamics in a thermally fluctuating environment. The stochastic resonance (SR), a novel cooperative phenomenon due to coupling of an ambient noise and an external signal, is studied for a number of bio-soft matter systems such as ion channels, and biopolymers. Due to the flexibility and susceptibility to thermal fluctuation, the systems manifest many new features of the entropic stochastic resonance.