

Abstract for an Invited Paper  
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**Non-equilibrium statistical mechanics in the context of biological physics<sup>1</sup>**

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Living systems are inherently out of equilibrium and operate in a fluctuating environment. The current challenges and interests in quantitative biology thus provide a great opportunity to introduce and develop methods from non-equilibrium statistical physics. For example, Master equations for evolution of probability find applications in mutating sequences, molecular motors, and signaling networks.

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