

Abstract Submitted
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Thermodynamic reversibility in feedback processes¹ JORDAN HOROWITZ, JUAN PARRONDO, Universidad Complutense de Madrid — The information acquired during a thermodynamic process with feedback can be converted into useful work. However, the second law of feedback restricts the amount of useful work that can be obtained from this information. In this presentation, I will discuss optimal thermodynamic processes with feedback, where all the information is converted into work. Utilizing the detailed fluctuation theorem for feedback, I will demonstrate that such processes are feedback-reversible: they are indistinguishable from their time-reversal, thereby extending the notion of thermodynamic reversibility to feedback processes.

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