

MAR07-2006-001763

Abstract for an Invited Paper  
for the MAR07 Meeting of  
the American Physical Society

**Exactly solvable models illustrating nonequilibrium work relations**

CHRISTOPHER JARZYNSKI, University of Maryland

Nonequilibrium work relations establish a connection between the work performed when driving a system away from thermal equilibrium, and the free energy difference between two equilibrium states of the system. I will discuss several exactly solvable model systems that illustrate these relations. While these examples represent idealized systems, and can be analyzed at the level of undergraduate mechanics, they nevertheless provide insight into subtle and sometimes counter-intuitive aspects of nonequilibrium work relations.