

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**The Increasingly Disordered History of Entropy** CESAR RODRIGUEZ-ROSARIO, The University of Texas at Austin — The interpretation of irreversibility had played a significant part of philosophical debates, but it was not until Carnot and his son established entropy as part of the empirical science of engines that the issue reached practical importance. It also had to wait for Maxwell, Boltzman, Gibbs and the birth of statistical mechanics that the concept of entropy was given a stronger theoretical basis, although the approximation it was based on is still a source of disagreement. This talk will focus on the debate from its early “demonic” times, past Szilard and Einstein building a refrigerator, to the role of von Neumann and Shannon in connecting the idea to information theory, without forgetting about the quantum mechanical master equations, all the way into its current use in quantum information theory.

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Date submitted: 02 Dec 2007

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