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**Xiaoping A Shen\*** (shen@math.ohiou.edu), Athens, OH, **Katheryn A Farris**,  
Wright-Patterson Air Force Base, Dayton, OH, **David J Rieksts**, Athens, OH , and **Paul R**  
**Havig**, Wright-Patterson Air Force Base, Dayton, OH. *Entropy revisited: A brief review and new*  
*developments*. Preliminary report.

Shannon entropy as a measure of uncertainty has found many applications in engineering and other areas. This article provides a brief review of the concepts, algorithms, and most recent applications. Numerical experiments related to the simulation of complex systems are used to illustrate the applications. New results reveal the relation between the Hurst parameter and entropy of certain time series of long range memory are reported. (Received July 27, 2010)