Introducing mutability as a form of dynamical entropy

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Let us consider a vector file (original) storing data of size w bytes. We define the mutability as $\mu=w*/w$, after compressing the original vector file into a new file of size $w*$ bytes. Compression recognizes repetitive values of observables and can organize them as a histogram. We can define the normalized probability $p(i)$ of getting the $i-th$ value of the observable. The Shannon entropy is $H=-\sum p(i) \ln(p(i))$. However, the information recognizer wlzip can additionally include information on how it reached the distribution of values, producing the probabilities $p(i)$ as a byproduct. We apply mutability via wlzip to the seismic data of the subduction trench in Northern Chile from 2007 to 2014. Movable overlapping time windows with spans of 256, 512, 1024 and 2048 consecutive events are used to detect tendencies. Comparison is done with similar results obtained with Shannon entropy and Tsallis entropy. Two possible premonitory indicators emerge from this analysis.