

## Properties making a chaotic system a good Pseudo Random Number Generator

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We discuss two properties making a deterministic algorithm suitable to generate a pseudo random sequence of numbers: high value of Kolmogorov-Sinai entropy and high-dimensionality. We propose the multi dimensional Anosov symplectic (cat) map as a Pseudo Random Number Generator. We show what chaotic features of this map are useful for generating Pseudo Random Numbers and investigate numerically which of them survive in the discrete version of the map. Testing and comparisons with other generators are performed.

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