

Highlights:

- Digital implementation of a chaotic map results in a pseudo chaotic map due to numerical discretization.
- Stochasticity and mixing are relevant to characterize a chaotic behavior.
- We use quantifiers from information theory to characterize the evolution of simple and switching maps in based-2 precisions.
- As result we encountered that a long period is not synonymous of good statistics.
- Also, the statistics of the maps represented in fixed-point produces a non-monotonous evolution toward the floating-point results.