Abstract Submitted
for the EGLSF21 Meeting of
The American Physical Society

Chaotic behavior through its invariance that does not depend on initial state[1] QUOC NGUYEN, University of Houston, DR. GUNARATNE TEAM — Chaos is everywhere in nature, from the formation of the snowflake or the trajectory of planets in the universe. All these chaotic behaviors, although random and unpredictable, form an attractor that is independent of the initial condition. Studying invariances of the attractor is the most reliable way to describe and learn about the chaotic dynamic. In this project, we study Henon, Lozi, and Lorenz attractors through invariance including Lyapunov exponent and fractal dimension.

[1]Chaotic dynamic through invariance that does not depend on initial condition

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Date submitted: 29 Oct 2021 Electronic form version 1.4