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Fractal structures in the chaotic motion of charged particles in a magnetized plasma under the influence of drift waves

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HIGHLIGHTS

- Fractal structures are typically found in chaotic orbits of area-preserving dynamical systems, and they influence its transport properties.
- We identify a number of fractal structures in a problem of interest in plasma physics: the drift motion of charged particles in a magnetized plasma under the action of two drift waves.
- The fractal structures we identify are escape basins, describing its fractal basin structure and also the Wada property. Both properties were investigated both qualitatively and quantitatively.

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