

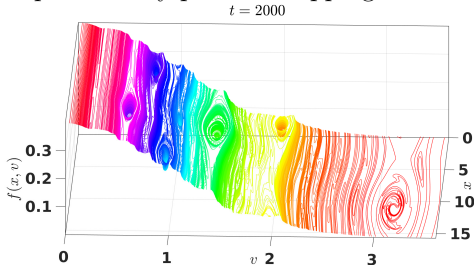
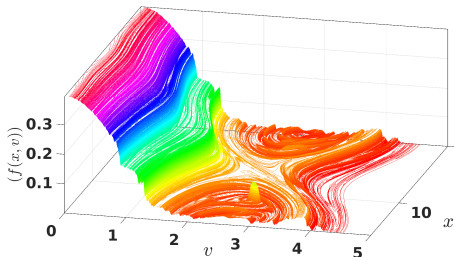
VLASOV SIMULATIONS OF DRIVEN ELECTROSTATIC PHASE SPACE VORTICES IN A 1-D ELECTRON-ION PLASMA

Pallavi Trivedi, Rajaraman Ganesh
Institute For plasma Research
Gandhinagar-382428, Gujarat, India

pallavi.trivedi90@gamil.com, ganesh@ipr.res.in

Chirp Driven Giant Phase Space Vortices (PSV)

- Electrostatic phase space structures or coherent structures or phase space vortices are saturated states of unstable collisionless plasmas in which saturation is provided by particle trapping.



- Such structures may form as a consequence of an external drive (chirp). A small amplitude external drive, when chirped, can couple effectively to the plasma leading to large, multi-extrema PSV or “shark mode” by a combination of both “untrapped” and “trapped particle” dynamics during chirp.

- *Pallavi Trivedi and R. Ganesh, Phys. of Plasmas 23, 062112 (2016)*
- *Pallavi Trivedi and R. Ganesh, Phys. of Plasmas 24, 032107 (2017)*
- *Pallavi Trivedi and R. Ganesh, (2017)(Manuscript under prepartion).*