

Publications in Journals

1. Electron inertia effects in 3-D hybrid-kinetic collisionless plasma turbulence, Patricio A. Muñoz, **Neeraj Jain**, Meisam Farzalipour Tabriz, Markus Rampp, and Jörg Büchner, *Phys. Plasmas* 30, 092302 (2023).
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5. Identification and characterization of current sheets in collisionless plasma turbulence, A. Chatraee Azizabadi, **N. Jain**, J. Büchner, *Phys. Plasmas* 28, 052904 (2021).
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7. A new hybrid code (CHIEF) implementing the inertial electron fluid equation without approximation, P. A. Muñoz, **N. Jain**, P. Kilian, J. Büchner, *Computer Physics Communications* 224, 245-264 (2018).
8. Electron-magnetohydrodynamic simulations of electron scale current sheet dynamics in the Vineta.II guide field reconnection experiment, **Neeraj Jain**, Adrian von Stechow, Patricio A. Muñoz, Jörg Büchner, Olaf Grulke, and Thomas Klinger, *Phys. Plasmas* 24, 092312 (2017).
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12. Evolution of electron current sheets in collisionless magnetic reconnection, **Neeraj Jain** and A. Surjalal Sharma, *Phys. Plasmas* 22, 102110 (2015).

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14. Electron-scale nested quadrupole Hall field in Cluster observations of magnetic reconnection,
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15. Plasma wakefield acceleration studies using the quasi-static code WAKE,
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16. Nonlinear evolution of three-dimensional instabilities of thin and thick electron scale current sheets: Plasmoid formation and current filamentation,
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26. Sausage Instabilities in the Electron Current Layer and its Role in the Concept of Fast Ignition,
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2. J. Büchner, P. Kilian, P. A. Muñoz, F. Spanier, F. Widmer, X. Zhou, and **N. Jain** (2018). Kinetic Simulations of Electron Acceleration at Mercury. In: Lühr H., Wicht J., Gilder S.A., Holschneider M. (eds) Magnetic Fields in the Solar System (pp. 201-240). Astrophysics and Space Science Library, vol 448. Springer, Cham.

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4. Sausage Instabilities in Electron Current Channels and the Problem of Fast Ignition,
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