BAPSF Publications

Topical Campaigns

Fast Ion Campaign

1. S. K. P. Tripathi, B. Van Compernolle, W. Gekelman, P. Pribyl, and W. Heidbrink, Excitation of shear Alfvén waves by a spiraling ion beam in a large magnetoplasma, Phys. Rev. E 91, 013109 (2015); http://dx.doi.org/10.1103/PhysRevE.91.013109
2. W W Heidbrink, H Boehmer, R McWilliams, A Preiwisch, Y Zhang, L Zhao, S Zhou, A Bovet, A Fasoli, I Furno, K Gustafson, P Ricci, T Carter, D Leneman, S K P Tripathi, and S Vincena, Measurements of interactions between waves and energetic ions in basic plasma experiments, Plasma Phys. Control. Fusion, 54, 124007 (2012); doi:10.1088/0741-3335/54/12/124007
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4. Zhou, S., Heidbrink, W.W., Boehmer, H., McWilliams, R., Carter, T.A., Vincena, S., Friedman, B., and Schaffner, D., Sheared-flow induced confinement transition in a linear magnetized plasma, Phys. Plasmas, 19, 012116 (2012); doi:10.1063/1.3677361.
5. S. K. P. Tripathi, P. Pribyl, and W. Gekelman, Development of a radio-frequency ion beam source for fast-ion studies on the large plasma device, Rev. Sci. Instrum. 82, 093501 (2011); doi:10.1063/1.3631628.
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7. Shu Zhou, W. W. Heidbrink, H. Boehmer, R. McWilliams, T. Carter, S. Vincena, S. K. P. Tripathi, P. Popovich, B. Friedman, and F. Jenko, Turbulent transport of fast ions in the Large Plasma Device, Phys. Plasmas, 17 092103, (2010); [doi:10.1063/1.3486532].

Auroral Physics Campaign

Radiation Belt Physics Campaign

1. Wang, Y. and Gekelman, W. and Pribyl, P. and Papadopoulos, K., Enhanced loss of magnetic-mirror-trapped fast electrons by a shear Alfvén wave, Phys. Plasmas, 21, 055705 (2014); DOI:http://dx.doi.org/10.1063/1.4874332

2. Y. Wang, W. Gekelman, and P. Pribyl, Hard x-ray tomographic studies of the destruction of an energetic electron ring, Rev. Sci. Instrum., v84, 053503 (2013) ; DOI:10.1063/1.4804354

3. S. T. Vincena, W. A. Farmer, J. E. Maggs, and G. J. Morales, Investigation of an ion-ion hybrid Alfvén wave resonator, Phys. Plasmas, 20, 012110 (2013) http://dx.doi.org/10.1063/1.4775777.

4. Yuhou Wang, Walter Gekelman, Patrick Pribyl, and Konstantinos Papadopoulos, Scattering of Magnetic Mirror Trapped Fast Electrons by a Shear Alfvén Wave, Phys. Rev. Lett. 108, 105002 (2012); DOI: 10.1103/PhysRevLett.108.105002.

5. Vincena, S. T., W. A. Farmer, J. E. Maggs, and G. J. Morales (2011), Laboratory realization of an ion-ion hybrid Alfvén wave resonator, Geophys. Res. Lett., 38, L11101, doi:10.1029/2011GL047399.

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User Experiments (non-campaign)

1. B. Van Compernolle, X. An, J. Bortnik, R. M. Thorne, P. Pribyl, and W. Gekelman, Excitation of Chirping Whistler Waves in a Laboratory Plasma, Phys. Rev. Lett. 114, 245002 (2015); http://dx.doi.org/10.1103/PhysRevLett.114.245002

2. A. S. Bondarenko, D. B. Schaeffer, E. T. Everson, S. E. Clark, C. G. Constantin, and C. Niemann, Spectroscopic measurement of high-frequency electric fields in the interaction of explosive debris plasma with magnetized background plasma, Phys. Plasmas, v21, 122112 (2014). DOI: 10.1063/1.4904374

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Local research activities (non-user, non-campaign)

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