



Simulations and Applications of Reduced MHD

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Reduced magnetohydrodynamics (RMHD) was originated in the work of Rosenbluth and fully developed by Strauss, which describes the nonlinear dynamics of kink and tearing instabilities in large aspect-ratio tokamak geometry. It features the simplicity and convenience in revealing the evolution of magnetic flux surfaces and plasma flows and shows the plasma disruption vividly. Using the simulations we try to learn more about the interaction between plasma flows and magnetic field perturbations and seek to solve other more practical problems as its applications.

References

The references related to your talks will be used to write summary paper in RMPP (Rev. Mod. Plasma Phys.). So do not miss important papers related to your talk.

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[4] Dahlburg, J. P., Montgomery, D. and Mattheus, W. H., J. Plasma Physics (1985), vol. 34, part 1, pp. 1-46