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Low Velocity Ion Stopping in a Collisional Magnetized Plasma HRACHYA NERSISYAN, IRadiophysics Ashtarak, CLAUDE DEUTSCH, LPGP UParis XI, LIVSD COLLABORATION — We investigate low velocity ion slowing down (LVISD)in a collisional and magnetized plasma. Ion stopping power is calculated through the linear response theory (LRP) based on a dielectric function approach. Collisions which monitore the damping of plasma excitations are accounted for with a number-preserving relaxation time approximation within LRP. Damping effects are highlighted by comparing analytical and numerical results for pointlike collisions and also zero damping. Kinetic [1] results are also contrasted to recent hydrodynamic [2] ones for LVISD parallel and orthogonal to the steady and applied magnetic field of arbitrary magnitude.

- [1] H.B.Nersisyan et al, PRE 61,7022(2000)
- [2] C.Deutsch and R.Popoff, PRE 78,056405(2008)

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