

Abstract Submitted  
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**Lower Hybrid Wave Damping on Alpha Particles in ITER**<sup>1</sup> R.W. HARVEY, YU.V. PETROV, CompX, P.T. BONOLI, Massachusetts Inst. of Technology — An alpha particle source has been enabled in CQL3D-FOW[1], and this provides time-dependent nonthermal distributions for self-consistent damping of lower hybrid waves. Using the conventional ray damping in CQL3D[2], ion cyclotron damping at harmonics 125 to 160 are examined in preliminary work in an ITER equilibrium. The results are to be compared with alternative calculations of the ion damping [3,4,5], and will provide a basis for future work on alpha-particle channeling [6] for which CQL3D-FOW is well suited. [1] Yu. V. Petrov and R.W. Harvey, this APS/DPP meeting (2016) [2] CQL3D Manual, <http://www.compcco.com/cql3d.html> [3] C.F.F. Karney, Phys. Fluids , 2188 (1979) [4] J. Schuss et al., Nucl. Fusion , 201 (1983) [5] P.T. Bonoli and M. Porkolab, Nucl. Fusion , 1341 ( ) [6] N.J. Fisch and J.-M. Rax, Nucl. Fusion, 549 (1992)

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