

Abstract Submitted  
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**Collisional Physics in GS2**<sup>1</sup> WILLIAM DORLAND, University of Maryland, PAOLO RICCI, Dartmouth College, ALEXANDER SCHEKOCHIN, Cambridge University, GREGORY HOWES, UC-Berkeley, BARRETT ROGERS, Dartmouth College, DARIN ERNST, MIT, CENTER FOR MULTI-SCALE PLASMA DYNAMICS COLLABORATION — Collisions are an important component of gyrokinetic systems, even in the long mean-free-path limit. In this poster, we recall the role of collisions in several interesting test cases (kinetic Alfvén waves, reconnection, zonal flow damping, and neoclassical transport). Upgrades to the GS2 collision operator that proved to be necessary to obtain expected results in each area have been implemented and will be described.

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William Dorland  
University of Maryland

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