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Finite-beta effects of non-Maxwellian fast ions in gyrokinetics GEORGE WILKIE, University of Maryland, IAN ABEL, Princeton University, WILLIAM DORLAND, University of Maryland — The presence of relatively small concentrations of fast ions is known to have a significant effect on the Alfvénic physics of fusion plasmas. These fast ions have large gyroradii and are usually non-Maxwellian, so the low-collisionality ordering of gyrokinetics is an approprite tool. Here, we use the GS2 gyrokinetics code to study finite-beta nonlinear effects in the presence of non-Maxwellian fast ions.

> George Wilkie University of Maryland

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