Numeric Solution of Plasma Impulse Response with Model Fokker-Planck Operator KRISTOPHER KLEIN, FRED SKIFF, University of Iowa Dept. of Physics and Astronomy — Using a model Fokker-Planck collision operator[1] we have investigated the impulse response of a kinetic plasma, in prescribed external electric and magnetic fields, due to several types of perturbations in phase space. The one-dimensional case is treated numerically as a solution of a Fredholm-Volterra Equation of the Second Kind. We also provide motivation for using the same numeric method for finding solutions of the higher dimensional cases. By comparing the numeric impulse response to measured two-point correlation functions in a magnetized plasma, we hope to test Onsager's regression hypothesis.

[1]J. P. Dougherty Phys. Fluids **7** (1964)

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