

SOLUTION OF THE FOKKER-PLANCK EQUATION WITH MIXING OF ANGULAR HARMONICS BY BEAM-BEAM CHARGE EXCHANGE. D. R. Mikkelsen, *Princeton Plasma Physics Laboratory, Princeton, New Jersey, USA.*

A method for solving the linear Fokker-Planck equation with anisotropic beam-beam charge exchange loss is presented. The 2D equation is transformed to a system of coupled 1D equations which are solved iteratively as independent equations. Although isotropic approximations to the beam-beam losses lead to inaccurate fast ion distributions, typically only a few angular harmonics are needed to include accurately the effect of the beam-beam charge exchange loss on the usual integrals of the fast ion distribution. Consequently, the algorithm converges very rapidly and, in the absence of other strongly anisotropic processes, is much more efficient than a 2D finite difference method. A convenient recursion formula for the coupling coefficients is given and generalization of the method is discussed.

#### NOTE TO APPEAR

A HORROR STORY ABOUT INTEGRATION METHODS. R. H. Miller, *University of Chicago, Chicago, Illinois, USA.*