

Abstract Submitted  
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**The Fokker-Planck approach to derive the magnetized Balescu-Lenard-Guernsey equation.**<sup>1</sup> CHAO DONG, WENLU ZHANG, DING LI, Institute of Physics, Chinese Academy of Science, Beijing 100190, China — The Fokker-Planck coefficients are expressed in terms of the power spectral function of the electric field fluctuations and the dielectric response function based on their new definitions for a plasma in the magnetic field. For a quiescent plasma, the power spectral function is calculated analytically by generalizing Hubbard's approach. The magnetized Balescu-Lenard-Guernsey equation is thus obtained which is shown to be the same as the kinetic equation derived from the BBGKY hierarchy of equations and reduce to our previous results within the binary collision model when the collective effects are neglected. Compared to the BBGKY approach, the Fokker-Planck approach is apparently simple in mathematical calculations in deriving the kinetic equation for magnetized plasmas.

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