

**Numerical solution of neoclassical ion transport using Fokker-Planck operator for  
Coulomb collisions**

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**Abstract.** A numerical method of solving the linearized drift kinetic equation for axisymmetric magnetic field with the Fokker-Planck operator for Coulomb collisions is presented. It is applied to calculate the ion thermal conductivity and parallel flow for concentric circular flux surfaces. Comparisons are made with existing calculations that use model collision operators. Analytic theory in the banana regime is shown to differ significantly from numerical calculations for flux surface aspect ratios and plasmas collisionality of practical interests.

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