Abstract Submitted
for the DPP12 Meeting of
The American Physical Society

Exact momentum conservation laws for truncated gyrokinetic Vlasov-Poisson equations[1] NATALIA TRONKO, CFSA Warwick (UK), ALAIN BRIZARD, Saint Michaels College — The exact momentum conservation laws are derived by Noether method for the truncated gyrokinetic Vlasov-Poisson equations based on a variational formulation constructed in [1]. We thus obtain results similar to our previous work [2], which may find applications in the numerical investigations of intrinsic rotation of axisymmetric tokamak plasmas by delta-f gyrokinetic simulation methods.

[1] A.J. Brizard, Phys. Plasmas 17, 042303 (2010).
[2] A.J. Brizard and N. Tronko, Phys. Plasmas 18, 082307 (2011).

[1]Work supported by U.S. DoE (AJB).

Alain Brizard
Saint Michaels College

Date submitted: 18 Jul 2012 Electronic form version 1.4