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Studies of the neoclassical transport for CNT BERNHARD SEIWALD, ITPCP, Graz University of Technology, VIKTOR V. NEMOV, Institute of Plasma Physics, Kharkov Institute of Physics and Technology, THOMAS SUNN PEDERSEN, Columbia University, Department of Applied Physics and Applied Mathematics, WINFRIED KERNBICHLER, ITPCP, Graz University of Technology —
The Columbia Nonneutral Torus (CNT) was not optimized with respect to $1/\nu$ neoclassical transport, therefore, such studies are of interest and desirable. For such a task the code SORSSA was adapted to CNT. SORSSA computes a normalized stored energy based on a simple transport model depending on the neoclassical effective ripple ϵ_{eff}. For this purpose ϵ_{eff} is calculated by following the magnetic field line. Because the magnetic field is computed in real space coordinates directly from coil parameters there is no restriction to the complexity of the magnetic field. First results of computations of the total stored energy are presented.
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