Compression of spinning plasma\textsuperscript{1} VASILY GEYKO, NATHANIEL FISCH, Princeton University — Adiabatic compression of a spinning plasma in cylindrical geometry is studied in thermodynamical limit. Compared to spinning neutral gas, additional electrostatic energy of charge separation yields to increased heat capacity for both axial and longitudinal compressions. Radial compression of plasma with external axial magnetic field is also considered. The obtained results can be used as thermodynamical estimations for z-pinch compression.

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