1123-76-210   **Pavel Belik**, **Douglas P Dokken**, **Kurt Scholz** and **Mikhail M Shvartsman***
(`mmshvartsman@stthomas.edu`), 2115 Summit Ave, Mail # OSS 201, Department of Mathematics,
Saint Paul, MN 55105-1079. *Thermodynamics Equations in Tornado Layer.* Preliminary report.

We explore the energy balance in a thunderstorm, in particular, how energy is redistributed on a local level inside a vortex-like flow. The notions of non-equilibrium thermodynamics are used to describe the problem. We show that fluctuations on a macroscopic level play an especially important role in this model. (Received August 26, 2016)