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Pavel Bělík* (belik@augzburg.edu), **Aleksandr Lukanen**, **Douglas Dokken**, **Mikhail Shvartsman** and **Kurt Scholz**. *Equilibrium statistics of vortex filaments on a cubic lattice and entropy computation*. Preliminary report.

We present an extension of the results obtained by Chorin and others in the early 90s on the equilibrium statistics of the vortex filaments constrained to the cubic lattice. We present the pivot algorithm for generation of self-avoiding walks and its modification that allows to extend the computational results to a much wider range of temperatures, both positive and negative. We also discuss a way to reliably estimate the entropy of such filaments using the hypothetical scanning method of Meirovitch. (Received August 26, 2016)