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Anna Skripka* (askripka@unm.edu). *Trace class bounds for Schur multipliers*. Preliminary report.

We derive lower bounds for trace class norms of multilinear Schur multipliers and apply them to show that an n th order operator Taylor remainder arising from a C^n -function is not necessarily in the trace class \mathcal{S}^1 when a perturbation is in the n th Schatten class \mathcal{S}^n . This extends the known result that not every Lipschitz function is operator Lipschitz in \mathcal{S}^1 and complements results on nice behavior of Schatten p -norms, $1 < p < \infty$, of operator Taylor remainders. The talk is based on joint work with D. Potapov, F. Sukochev, and A. Tomskova. (Received September 12, 2016)