1117-52-302     **Oleg R. Musin\*** (`oleg.musin@utrgv.edu`), UTRGV, SMSS, One West University Boulevard, Brownsville, TX 78520. *Optimal configurations on spheres and majorizations.*

We consider optimal distributions of N points on spheres interacting via convex decreasing potentials. The majorization (or Karamata) inequality implies that the set of distances between points of an optimal configuration is (weakly) majorized by distance sets of other distributions. Therefore, we have that the sets of minimums of majorizations on spheres contain optimal configurations. We will discuss several results in this direction that are related to the optimal Riesz s-energy configurations, Thomson's and Tammes' problems. (Received January 16, 2016)