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**Michael Gene Dobbins\*** (mdobbins@binghamton.edu), 4400 Vestal Parkway East, Vestal, NY 13850. *Grassmannians and Pseudosphere Arrangements in Rank 3.*

In this talk I will present a metric space of pseudosphere arrangements, as in the topological representation theorem, where each pseudosphere is assigned a weight. This extends spaces of vector configurations to spaces with nicer combinatorial and topological properties. In rank 3 these spaces, modulo  $O(3)$ , are homotopy equivalent to the corresponding Grassmannians, and the subspaces representing a fixed oriented matroid are contractible. (Received August 19, 2019)