

1026-52-35

Vladimir Oliker* (oliker@mathcs.emory.edu), Department of Math. and Comp. Science, Emory University, Atlanta, GA 30322. *Closed convex hypersurfaces in Euclidean space with prescribed integral Gauss curvature and optimal transport on a sphere.*

The purpose of this talk is to describe a variational solution to the problem of A.D. Aleksandrov concerning existence and uniqueness of a closed convex hypersurface in Euclidean space R^{n+1} , $n \geq 2$, with prescribed integral Gauss curvature given as a Borel measure on a unit sphere S^n . In addition, it is shown that this problem in variational formulation is closely connected with the problem of optimal transport on S^n . (Received January 21, 2007)