1163-35-53Antonio De Rosa* (derosa@cims.nyu.edu), Department of Mathematics, William E. Kirwan,
4176 Campus Dr, College Park, MD 20742. Uniqueness of critical points of the anisotropic
isoperimetric problem.

The anisotropic isoperimetric problem consists in enclosing a prescribed volume in a closed hypersurface with least anisotropic energy. Although its solutions, referred to as Wulff shapes, are well understood, the characterization of the associated critical points is more subtle. In this talk we present a uniqueness result: Given an elliptic integrand of class $C^{2,\alpha}$, we prove that finite unions of disjoint (but possibly mutually tangent) open Wulff shapes with equal radii are the only volume-constrained critical points of the anisotropic surface energy among all sets with finite perimeter and reduced boundary almost equal to its closure. To conclude, we will discuss a quantitative stability for this rigidity theorem. (Received August 02, 2020)