Every point is critical in a Riemannian manifold

Luis Guijarro (Universidad Autónoma de Madrid)

We show that in any compact Riemannian manifold M, any point p is critical (in the sens of Grove and Shiohama) for the distance function from some other point q. This extends results of of Bárány, Itoh, Vîlcu and Zamfirescu, who proved a similar statement for Alexandrov surfaces. This is joint work with Fernando Galaz-Garcia.