

Fractional Michael-Simon Sobolev inequalities

TBD

Abstract: The classical Michael-Simon and Allard inequality is a Sobolev inequality for functions defined on a submanifold of Euclidean space. It is governed by a universal constant independent of the manifold, but displays on the right-hand side an additional L^p term weighted by the mean curvature of the underlying manifold. In this talk I will give a brief survey on this inequality, its application to mean curvature flow, and on recent results dealing with some nonlocal versions of it.

The talk is based on a joint work with X. Cabré and M. Cozzi.