

Curvature functionals for surfaces with fractional regularity

Monday, July 4, 2022 11:00 AM (30 minutes)

The curvature functionals (such as the Willmore functional) are usually defined under $W^{2,2}$ regularity assumptions on the given surface. We will explain how this assumption could be relaxed to the fractional Sobolev setting $W^{1+s,2/s}$ for $s > 1/2$, and will discuss the related problematics of a fractional variational plate model in nonlinear elasticity.

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