

Nonlocal capillarity problems with anisotropic kernels

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☺ June 9, 11:30

Classical capillarity theory is based on the study of volume-constrained critical points and local/global minimizers of the Gauss free energy of a liquid droplet occupying a region inside a container. In 2016 F. Maggi and E. Valdinoci introduced a family of nonlocal capillarity models where surface tension energies are replaced by fractional-type interaction energies. I will discuss about a nonlocal capillarity problem involving interaction kernels which are possibly anisotropic and have different homogeneity in order to take into account the possibility that the liquid/air interaction and the liquid/surface one are different.