



Seminari di Matematica

12 settembre 2025
Ore 14:30 – Aula I
Dipartimento di Matematica

Delaunay-like compact equilibria in the liquid drop model

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Abstract

The liquid drop model was originally introduced by Gamow in 1928 to model atomic nuclei. The model describes the competition between surface tension (which keeps the nuclei together) and Coulomb force (which corresponds to sets in the 3-dimensional Euclidean space which satisfies an equation that links the mean curvature of the boundary of the set to the Newtonian potential of the set). In this talk I will present the construction of toroidal surfaces, modelled on a family of Delaunay surfaces, with large volume which provide new equilibrium shapes for the liquid drop model. This work is in collaboration with M. del Pino and A. Zuniga

Organizzato dalla Prof.ssa Silvia Cingolani e dalla Prof.ssa Giusi Vaira



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