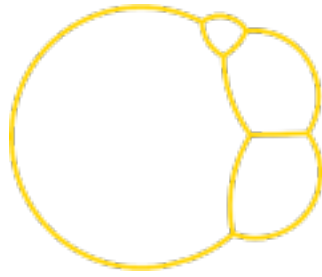


Isoperimetric Problems



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An isoperimetric problem with strong capacitary repulsion

Monday, 20 June 2022 15:50 (50 minutes)

In a project started 8 years ago, together with M. Goldman, C. B. Muratov and M. Novaga, we studied a variational problem aiming to describe the behavior of a liquid electrically charged drop. This leads to an interesting isoperimetric problem in presence of a capacitary repulsive term. Tuning on the parameters of the energy, such as the amount of the charge, the volume of the drop and the choice of the Riesz potential inherent in the definition of capacity, one observes different behaviors. In particular the problem becomes quite non-trivial in a certain class of singular capacities. In this talk, after a general overview of the topic, I will concentrate on a solution we recently obtained for this latter issue.

Presenter: RUFFINI, Berardo