A regularity result for the singular set of Mumford-Shah minimizers near minimal cones in R3

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To purpose of the talk is to present a new regularity result for Mumford-Shah minimizers in R3. In a first part I will give an introduction about the Mumford-Shah functional, with definitions of Minimizers and known results about the Mumford-Shah conjecture and regularity of the singular set. Then I will recall Jean Taylor’s Theorem about regularity of soap bubbles in R3 and try to explain how we can use a ”Jean Taylor’s like Theorem” to prove a same sort of regularity result about Mumford-Shah minimizers in R3, which answer to a question that people like Guy David, Luigi Ambrosio, Nicola Fusco and Diego Pallara was wondering in 1996.