

2D Smoluchowski-Poisson equation and defect measures

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Abstract

I talk on the fundamental equation in thermodynamical transport theory where quantized blowup mechanism is observed in stationary, finite time, and infinite time. Residual vanishing is the main issue to establish this property. For the quantization of blowup in infinite time I use a Liouville theorem applied to defect measures. Then global-in-time dynamics of this model is described in accordance with the total mass and the geometry of the domain. A practical approach to angiogenesis is also proposed in the context of chemotactic paradox.