Seminario de Análisis y Aplicaciones

Viernes, 11 de noviembre de 2011

11:30 h., Aula Naranja (ICMat, Campus de Cantoblanco)

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ICMAT

Multiple peak aggregations for the Keller-Segel system

Resumen: *Joint work with Prof. J.L. Velázquez and Prof. Y. Sugiyama.*

In this talk I will talk about aggregations of Dirac mass in the Keller-Segel system.

It is common that blow-up takes place under the assumption that the mass is initially greater than 8π and the distribution of initial mass is localized around a point of the domain under consideration.
Every blow-up produces a Dirac mass at the blow-up time. The quantity of the Dirac mass is, in general, unknown. We show that it is possible to construct, by matched asymptotic expansion techniques, a formal solution having two peaks that aggregate at the blow-up time and thus producing 16π as the quantity of Dirac mass.

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