Dipartimento di Matematica - Università di Pisa

NEW TRENDS IN PARTIAL DIFFERENTIAL EQUATIONS AND APPLICATIONS

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On a long range segregation problem

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Segregation phenomena occurs in many areas of mathematics and science: from equipartition problems in geometry, to social and biological process (cells, bacteria, ants, mammals) to finance (sellers and buyers). There is a large body of literature studying segregation models where the interaction between species is punctual. There are many processes though, where the growth of a population at a point is inhibited by the populations in a full area surrounding that point.

The work we present is a first attempt to study the properties of such a segregation process. This is a joint paper with Luis Caffarelli and Vronica Quitalo.

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