Seminario de Matemática Aplicada

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"Large time behavior in a viscous Hamilton-Jacobi equation with degenerate diusion"

The large time behavior of nonnegative solutions to the quasi-linear degenerate diusion equation $\partial_t u - \Delta_p u = |\nabla u|^q$ is investigated for $p > 2$ and $q > 0$ in a bounded domain. Qualitative properties of the solutions vary greatly according to the relative strength of the diusion and the source term. In particular, we show how the relation between the parameters in uences the existence of nontrivial steady states and the existence of solutions which are global in time. Moreover, we study the convergence of global solutions towards steady states and characterize the stationary solutions.

Organizado por el Departamento de Matemática Aplicada de la UCM, el Grupo MOMAT y el IMI

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Seminario Alberto Dou (aula 209)
Facultad de CC. Matemáticas, UCM**