THE DESINGULARIZATION OF SMALL MOVING CORNERS FOR THE MUSKAT EQUATION

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The Muskat equation models the interaction of two incompressible fluids with equal viscosity propagating in porous medium, governed by Darcy's law. In this talk, we investigate the small data critical regularity theory for this equation, and in particular, the desingularization of interfaces with small moving corners. This is a joint work with Eduardo Garcia-Juarez (Universidad de Sevilla), Javier Gomez-Serrano (Brown University) and Benoit Pausader (Brown University).