INTERACTIONS AMONG QUANTITIES OF DIFFERENT DIFFUSIVITY

Luis A. Caffarelli

University of Texas at Austin, USA.

Abstract. In this presentation I will discuss different models of interactions among variables of different dimensionality (a surface and a volume), different diffusivity (one local, the other integral), occupying adjacent domains or overlapping. Examples are segregation of species, bid-ask configurations in finance, sublimation from solid to air. We are interested in existence, regularity and stability, properties of variables and their interphases.