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Models for growth of heterogeneous sandpiles via Mosco convergence

Abstract. I will discuss the asymptotic behavior of variable exponent power-law functionals in the framework of Mosco convergence, and indicate some consequences to the analysis of a class of quasilinear parabolic problems which in the fast/slow diffusion limit models the growth of sandpiles whose critical slopes depend explicitly on the position in the sample. This is joint work with M. Mihailescu, M. Perez-Llanos, and J.D. Rossi.