

Boundary null controllability of a class of 2-d degenerate parabolic PDEs

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In this talk we present new results related with the boundary null controllability of some degenerate parabolic equations posed on a square domain, presenting the first study of boundary controllability for such equations in multidimensional settings. The proof combines two classical techniques: the method of moments and the Lebeau-Robbiano strategy. A key novelty of this work lies in the analysis of boundary control localized on a subset of the boundary where degeneracy occurs. We discuss the extensions to N -dimensional domains along with open problems.

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