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Approximate controllability for reaction-diffusion equations

In this talk, we study the global approximate controllability for nonlinear parabolic equations. In particular, we discuss multiplicative controllability results for reaction-diffusion equations governed via the coefficient of the reaction term (see, e.g., [1] and [2]).

[1] G. Floridia, Approximate controllability for nonlinear degenerate parabolic problems with bilinear control, *J. Differential Equations*, **257** no.9 (2014), 3382–3422.

[2] P. Cannarsa, G. Floridia, A.Y. Khapalov, Multiplicative controllability for semilinear reaction-diffusion equations with target states admitting finitely many changes of sign, *preprint*.