报告题目：On a Family of Parabolic System with General Singular Nonlinearities

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报告时间：2020-08-31 星期一 10:00-11:00

报告地点：腾讯会议（会议号 275 944 826）

摘要：We study a family of parabolic system with general singular nonlinearities, which is a generalization of MEMS system. We extend the classical results for single MEMS equation to coupled system. More precisely, the classification of global existence and finite time quenching according to parameters and initial data is given. Moreover, the convergence, convergence rate, quenching time estimates are obtained. We point out that compared to single MEMS equation, some new ideas and techniques are introduced in obtaining the convergence rate for system in our study. In fact, due to the lack of variational characterization for the first eigenvalue of the linearized elliptic system, the methods in obtaining convergence rate for single equation cannot work completely here. This is a joint work with Qi Wang from University of Shanghai for Science and Technology.

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