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Anna Ghazaryan* (ghazarar@miamioh.edu), Department of Mathematics, Miami University, Oxford, OH 45056, and **Yuri Latushkin** and **Stephen Schechter**. *Nonlinear stability of fronts and pulses for a class of partly parabolic systems that arise in chemical reaction models.*

I will discuss linear and nonlinear stability results for traveling waves in a class of partly parabolic systems that arise in chemical reaction models. The semigroups generated by linearizing these systems about the waves are not sectorial. Nevertheless, our linear stability result shows that spectral stability implies linearized stability against bounded perturbations. In addition, a result on nonlinear stability in exponentially weighted spaces provides a detailed description of the time evolution of the perturbations to the wave. (Received January 06, 2015)