Title: "Some singular limits in reaction-diffusion systems
by Michel PIERRE,
ENS Rennes (Ecole Normale Supérieure de Rennes),
and IRMAR (Institut de Recherche Mathématique de Rennes)
France

We will discuss the limit of reaction-diffusion systems where some rate constants tend to infinity. The limit systems are generally more significant in applications. But justifying rigorously these passing to the limit may sometimes be not straightforward. We will show the difficulties together with some results and open problems on three examples, one being curiously connected with optimal spectral partitions.