

1116-00-1674

**Z. Q. Xu\*** (xuzhqmaths@126.com), Department of Mathematics, Shanghai Jiao Tong University, Room 325, PhD office, Shanghai, 200240, Peoples Rep of China, and **D. M. Xiao** (xiaodm@sjtu.edu.cn), Department of Mathematics, Shanghai Jiao Tong University, Room 328, Prof. office, Shanghai, 200240, Peoples Rep of China. *Spreading speeds and uniqueness of traveling waves for a reaction diffusion equation with spatio-temporal delays.* Preliminary report.

This talk is concerned with a class of reaction diffusion equation with spatio-temporal delays. When the reaction function of this equation is nonlinear without monotonicity, it is shown that there exists a spreading speed  $c^* > 0$  for this equation such that  $c^*$  is linearly determinate and coincides with the minimal wave speed of traveling waves, and that this equation admits a unique traveling wave (up to translation) with speed  $c > c^*$  and no traveling wave with  $c < c^*$ . (Received September 21, 2015)