1018-49-265 **Qinglan Xia*** (`qlxia@math.ucdavis.edu`), Department of Mathematics, University of California, One Shields Ave., Davis, CA 95616. *Ramified mass transportation and its applications.*

Ramified structures are commonly observed in many living and non-living transport systems. In this talk, I will talk about the mathematics behind the formation of these structures, in terms of optimal mass transportation. After briefly review current knowledge about this subject, I will talk about its application to the formation of tree leaves and others. (Received March 07, 2006)