1011-49-318   **Qinglan Xia***, Department of Mathematics, One shields Avenue, University of California at Davis, Davis, CA 95616. *Ramified transportation and the formation of tree leaves.*

It is well known that tree leaves have various but beautiful shapes and patterns. The question is why? Are there any mathematics behind it? In this talk, I will discuss the role of ramified transportation played in the formation of tree leaves. (Received August 30, 2005)