1114-49-340   **Qinglan Xia*** (`qlxia@math.ucdavis.edu`), Department of Mathematics, University of California, One Shields Ave, Davis, CA 95616. *Analysis and Modeling of Transport Flows.* Preliminary report.

The study of geometric flow has been one of the central fields in differential geometry. Usually, a geometric flow is driven by some extrinsic or intrinsic curvature. In this talk, I will describe a new kind of flow, where the flow is mainly driven by optimal transportation, rather than curvature. As mean curvature flow is modeling the evolution of soap films, the transport flow is modeling the evolution (i.e. the dynamic growth) of a living organ such as a plant leaf, a flower, a lung or a placenta. (Received September 01, 2015)