

963-53-149

Alina Stancu* (stancu@gat.univ-lille1.fr), U.F.R. de Mathematiques, Univ. des Sciences et Technologies de Lille, 59655 Villeneuve d'Ascq, France. *Evolving piecewise linear convex curves in the plane*. Preliminary report.

We consider Jean Taylor's flow on the space of planar convex polygons with N sides of pre-assigned orientations. Identifying a polygon with the vector of the support functions to its sides, we transfer the study of the evolving curves to an analysis of hypersurfaces in \mathbf{R}^{N+1} . This led to a uniqueness result for the self-similar solutions to the flow under no symmetry assumptions. (Received January 23, 2001)