1086-51-424   **Diana Davis*** (`diana@math.brown.edu`). *Shearing, twisting and geodesics on polygon surfaces.*
We create a surface by identifying opposite parallel edges of a polygon or polygons, and then we consider a twisting automorphism of the surface. The question is, given a geodesic path on the original surface, what happens to the path when we twist the surface? What happens to the associated "cutting sequence" of edges that the trajectory crosses? We will discuss results for various Veech surfaces, including regular polygons and Bouw-Moller surfaces. (Received August 31, 2012)