1003-X1-1432 **Bruno Guerrieri*** (`bguerrieri@comcast.net`), Department of Mathematics, Florida A&M University, Tallahassee, FL 32312. *Roof Ridgelines and Medial Axes.*

Determining the medial axis of a 2D object provides very useful information, for instance, for object recognition by a machine. We will briefly mention several methods for determining the medial axis of a polygon (not necessarily convex) and present visuals that will show how Nature determines the ridgeline (medial axis seen from above) of a roof in a simulation (thanks to Dr. Joseph O'Rourke). This makes for a short presentation that could be weaved into the classroom and exemplifies the power of simple ideas. (Received October 05, 2004)