1046-52-999 Emma Schlatter* (eschlatt@email.smith.edu), Department of Mathematics and Statistics, Smith College, Northampton, MA 01063, and Jessica Peterson, Sarah Rathnam and Emily Gunawan. Unfolding Convex Polyhedra.
It is a long-unsolved problem to decide whether or not the surface of every convex polyhedron may be sliced along its edges and unfolded flat to one connected piece without overlap. (Such a planar shape is sometimes called a *net* for the polyhedron.) Cutting any spanning tree of the 1-skeleton of the polyhedron permits the surface to be unfolding flat, but no one has found a way to guarantee there will not be overlap. Nor is there a counterexample to the hypothesis that all convex polyhedra have such an unfolding.

We prove that a subclass of the prismatoids do indeed have a non-overlapping unfolding. A prismatoid is the convex hull of two convex polygons lying in parallel planes. We hope to extend our proof to all prismatoids. (Received September 13, 2008)

