1046-53-217 **Michelle E Hackman*** (mehackma@indiana.edu), 2712 S. Banta Ave., Bloomington, IN 47403.

Screw-Motion Invariant Minimal Surfaces.

If we twist the fence of catenoids, a well-known minimal surface, we get a new family of screw-motion invariant minimal surfaces. In my research, I found that the existence of such a surface depends on a complex number τ ($\mathrm{Im}[\tau] > 0$) and the angle of the screw-motion twist. I proved that for every τ there exists a surface for some screw-motion angle ψ. My talk will outline my results thus far, as well as conjectures about open questions. (Received September 15, 2008)