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**Sarah-Marie Belcastro\***, Sarah Lawrence College, Bronxville, NY. *Snark attack! Visualizations of “uncolorable” graphs on surfaces.*

You’ve probably seen a common (indeed, iconic) drawing of the Petersen graph as a five-pointed star joined to a pentagon; it graces the covers of journals and textbooks. The Petersen graph is Everyone’s Favorite Graph<sup>TM</sup>, and is the smallest example of a class of graphs known as *snarks*. Snarks are central to a proposed generalization of the Four Color Theorem to topological surfaces other than the sphere (Grünbaum’s Conjecture). For this reason, it is of interest to consider how snarks may be drawn (*embedded*) on these surfaces.

In this talk, we will generalize from the Petersen graph to snarks at large, and give the topological graph theory background needed to appreciate snark embeddings—all the while relating aspects of snark diagrams to the mathematics exhibited therein. Then we will survey what is known about snark embeddings on low-genus surfaces, with examples from recent research and discussion of the mathematics involved in designing images of these examples. In addition to lots of computer-drawn images of snarks, physical models will be shown in various media, including ball-and-stick, origami, knitting, rubber, quilting, and (if I can pull it off!) dance. (Received April 09, 2013)