John Nicholson* (nicholsonja@apsu.edu). Curve stitching variations in 2D and 3D.

Curve stitching was invented by Mary Boole in the 1800s when she used thread to create new types of patterns on sewing cards. Over 100 years later, curve stitching images are now often rendered using software, which allows for renderings of both 2D and 3D images. Even after all this time, though, and even with the addition of computational tools, curve stitching images are still almost exclusively created using short line segments. In this talk, I demonstrate variations that extend the basic principles of curve stitching in which line segments are used to connect two points moving at different rates along a path or shape such as a circle. Rather than using line segments to connect the moving points, this new method uses curves, shapes, and surfaces to connect the points. The resulting images from these variations are visually rooted in the traditional curve stitching approach while simultaneously increasing its possibilities. (Received September 17, 2019)