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Caitlyn Hannum, Christine Hoffman and **Katherine Koch*** (kkoch@smith.edu),
Department of Mathematics, Smith College, Northampton, MA 01063, and **Erin Linebarger,**
Joseph O'Rourke and **Judy Wang.** *Developing surfaces that are hulls of two circles in space.*

The convex hull of two circles in space is a shape that consists of developable surface patches, and so can be constructed by cutting out planar pieces and bending and gluing them together to form the shape. We investigate which pairs of circles lead to single-piece developments that do not self-overlap in the plane, and so can be constructed with one cutout. We determine the developments in a number of special placements of the two circles, and formulate conjectures for generalizations. We will display models of these shapes made with a 3D printer and a laser cutter. (Received September 14, 2013)