Michael Joswig and Joe Kileel* (jkileel@math.berkeley.edu), Department of Mathematics, UC Berkeley, CA 94720, and Bernd Sturmfels and André Wagner. Rigid Multiview Varieties.

The multiview variety from computer vision is generalized to images by $n$ cameras of points linked by a distance constraint. The resulting five-dimensional variety lives in a product of $2n$ projective planes. We determine defining polynomial equations, and we explore generalizations to scenarios of interest in applications. (Received September 19, 2015)