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Rekha Thomas* (rrrthomas@uw.edu). *Algebraic Methods in Computer Vision.*

A foundational problem in computer vision is the reconstruction of 3-dimensional scenes from camera images of the scene. In the absence of noise, this reconstruction problem is often equivalent to the existence of a real solution to a system of polynomial equations. This allows one to study these problems using tools from algebraic geometry, commutative algebra, combinatorics and polynomial optimization. In this talk I will describe recent results that have been possible by approaching 3D reconstruction problems from such an algebraic point of view. (Received September 06, 2015)