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Valeriu Soltan* (vsoltan@gmu.edu), George Mason University, 4400 University Drive, Fairfax, VA 22030. *Convex surfaces with planar quadric sections*. Preliminary report.

We define a convex quadric surface in \mathbb{R}^n as the boundary of a convex component of $\mathbb{R}^n \setminus Q$, if any, where Q is a real quadric surface. We review existing results and open problems related to characterizations of convex quadric surfaces in terms of their planar sections. (Received April 17, 2010)