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Mohammad Ghomi* (ghomi@math.sc.edu), Department of Mathematics, University of South Carolina, Columbia, SC 29208, and **Bruce Solomon** (solomon@indiana.edu), Department of Mathematics, Indiana University, Bloomington, IN 47405. *Skew Loops and Quadric Surfaces.*

A skew loop is an immersed circle in Euclidean space with no pair of parallel tangent lines. We prove that quadric surfaces of positive curvature—ellipsoids, elliptic paraboloids, and hyperboloids of two sheets—admit no such curves. Further, we show that this property characterizes the positively curved quadrics among all complete surfaces with at least one point of positive curvature immersed in 3-space. In particular, ellipsoids are the only closed surfaces without skew loops. (Received January 22, 2001)