Julie Rana\* (jrana@umn.edu), Jenia Tevelev and Giancarlo Urzua. The Craighero-Gattazzo surface is simply-connected. Preliminary report.

We show that the Craighero-Gattazzo surface, the minimal resolution of an explicit complex quintic surface with four elliptic singularities, is simply-connected. This was first conjectured by Dolgachev and Werner. The proof utilizes an interesting technique: to prove a topological fact about a complex surface we use algebraic reduction mod p and deformation theory. (Received February 23, 2016)