

1117-14-478

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

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 January 19, 2016)