

1117-57-248

**Huygens Ravelomanana\*** (ravelomanana@uga.edu). *Exceptional Cosmetic Surgeries on  $S^3$* .

Two distinct Dehn surgeries on the same knot are called cosmetic if they produce homeomorphic 3-manifolds. The knot cosmetic surgery problem asks if cosmetic surgeries do exist. One of my results is that the slope of an exceptional truly cosmetic surgery (if it exists) on a hyperbolic knot in  $S^3$  must be  $\pm 1$  and the surgery must be toroidal but not Seifert fibred. I will talk about this and some of its consequences. (Received January 15, 2016)