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Carson Rogers* (carson.rogers@bc.edu). *Cosmetic twisting on fibered and hyperbolic knots*. Preliminary report.

The Cosmetic Crossing conjecture aims to classify all crossing changes on knots in S^3 which preserve knot type. In this talk, we examine an extension of this question to the operation of an n -tangle replacement. When n is even, this is known in the literature as a generalized crossing change. After summarizing previous work on that case, we discuss two results of the speaker which restrict cosmetic n -tangle replacements on fibered knots in rational homology spheres. In particular, we show that such knots do not admit cosmetic generalized crossing changes, extending a result of Kalfagianni.

Then, motivated by recent developments in hyperbolic Dehn surgery, we consider the case of hyperbolic knots. We explain how work of Cooper and Lackenby can be used to show that a hyperbolic knot only admits cosmetic generalized crossing changes of finitely many orders. To conclude, we pose questions about the potential to obtain an effective version of this result. (Received March 03, 2020)