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Allison H Moore* (allison.h.moore@rice.edu), MS-136, Box 1892, Houston, TX , and **Tye Lidman**, 1 Einstein Drive, Princeton, NJ 08540. *The cosmetic crossing conjecture and symmetric unions.*

The cosmetic crossing conjecture asserts that the only crossing changes which preserve the isotopy class of a knot are nugatory. Previously, the knots known to satisfy this conjecture included two-bridge and fibered knots. We will show that knots with branched double covers that are L-spaces also satisfy the cosmetic crossing conjecture, provided the first singular homology of the branched double cover decomposes into summands of square-free order. We will also demonstrate how a symmetric union, a classical construction of Kinoshita-Terasaka, can be used to generate an infinite family of knots satisfying this conjecture. Part of this work is joint with Lidman. (Received September 10, 2015)