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Jeremy Lovejoy* (lovejoy@math.berkeley.edu), Department of Mathematics, University of California, Berkeley, 970 Evans Hall #3780, Berkeley, CA 94720-3780, and **Kazuhiro Hikami** (khikami@gmail.com). *The modularity of certain WRT invariants.*

In this talk I will discuss the modularity of the unified WRT invariant of some 3-manifolds constructed from surgery on torus knots. In all cases we have quantum modularity at roots of unity and for +2 surgery we obtain mock theta functions. The proofs depend on formulas for the colored Jones polynomials of torus knots and techniques from the theory of Bailey pairs. This is joint work with Kazuhiro Hikami (Kyushu). (Received January 02, 2018)