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Winston-Salem, NC 27109. *An Enhanced Prime Decomposition Theorem for Knots.*

The prime decomposition theorem for knots, proved by Schubert in 1948, states that a knot can be decomposed uniquely as a connected sum of prime knots. In 1949 Schubert published his result with a new proof which utilized incompressible tori in knot complements. We will discuss an enhanced version of the prime decomposition theorem, inspired by the JSJ decomposition of a knot complement, which incorporates an algebraic structure that is quite useful for tabulating composite knots and computing their intrinsic symmetries (i.e., invertibility and chirality). (Received August 19, 2013)