

Meeting: 1003, Atlanta, Georgia, SS 15A, AMS Special Session on Quantum Topology, I

1003-57-1454 **Cameron McA. Gordon*** (gordon@math.utexas.edu), Department of Mathematics, University of Texas, 1 University Station C1200, Austin, TX 78712, and **John E. Luecke** (luecke@math.utexas.edu), Department of Mathematics, University of Texas, 1 University Station C1200, Austin, TX 78712. *Knots with unknotting number 1 and Conway spheres.*

If a knot K with an essential Conway sphere S has unknotting number 1 then either the unknotting move can be isotoped to miss S , or K belongs to the family of such knots constructed by Eudave-Munoz, or K contains a tangle summand belonging to an analogous family. We will show how this gives very strong conditions on when an algebraic knot, that is not a Montesinos knot of length 3, has unknotting number 1. (Received October 05, 2004)