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Station, Austin, TX 78712. *Knots with Unknotting Number 1.* Preliminary report.

We will describe some results on when a knot with an essential Conway sphere can have unknotting number 1. We will apply this to give an algorithm to determine whether or not a given large Conway-algebraic knot has unknotting number 1. We will also apply it to the knots in the tables with 11 or fewer crossings. (Received August 24, 2004)