Ben M McCarty* (benm@math.lsu.edu), Department of Mathematics, 303 Lockett Hall, Baton Rouge, LA 70803-4918. Cube Number Distinguishes Legendrian Type for Certain Torus Knots. Preliminary report.

For a knot K the cube number is a knot invariant defined to be the smallest n for which there is a cube diagram of size n for K. There is also Legendrian version of this invariant called the Legendrian cube number. We will show that the Legendrian cube number distinguishes the Legendrian left hand torus knots with maximal Thurston-Bennequin number and maximal rotation number from the Legendrian left hand torus knots with maximal Thurston-Bennequin number and minimal rotation number. (Received September 07, 2010)