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Ben McCarty* (benm@math.lsu.edu), Department of Mathematics, 303 Lockett Hall, Baton Rouge, LA 70803. *An infinite family of Legendrian torus knots distinguished by cube number*. 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 a 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 January 17, 2011)