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Michael J. Hopkins* (mjh@math.mit.edu), Massachusetts Institute of Technology, Department of Mathematics, 2-243, 77 Massachusetts Avenue, Cambridge, MA 02139-4307. *Twists of K-theory*.

About two years ago Witten related D-brane charge in superstring theory to “twisted K-theory.” This led to a flurry of activity in superstring theory, and renewed interest in twisted K-theory among mathematicians. In my talk I will explain what it means to “twist” K-theory, and I’ll describe recent joint work with Dan Freed and Constantin Teleman relating twisted K-theory to the Verlinde algebra and the representations of loop groups. This talk should be accessible to a general audience. (Received April 13, 2000)