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Prudence Heck* (pheck@indiana.edu), Department of Mathematics, Indiana University,
Rawles Hall, 831 East 3rd St, Bloomington, IN 47405. *Knots in the Heisenberg
Manifold*. Preliminary report.

The Heisenberg manifold M is a principal S^1 bundle over the torus. It has nonabelian nilpotent fundamental group, so one may ask how this affects concordance of knots within a chosen homotopy class. It turns out that knots in M are not so much like *knots* in S^3 as *links*. We construct a suitable framework for analyzing concordance in M , and then construct a rich family of knots which are homotopic but not concordant to a standard embedding. (Received August 19, 2008)