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Yi Ni* (yni@math.princeton.edu), 1R Magie, Faculty Road, Princeton, NJ 08540. *Knot Floer homology detects fibred knots.*

Ozsváth and Szabó conjectured that knot Floer homology detects fibred knots in S^3 . In this talk, we will discuss a proof of this conjecture, based on the works of Paolo Ghiggini and the speaker. A corollary of this conjecture is that if a knot in S^3 admits a lens space surgery, then the knot is fibred. (Received September 12, 2006)