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**Kaitlyn Phillipson\***, kaitlyn@math.tamu.edu, and **Paula E. Burkhardt** and **J. Maurice Rojas**. *A Stronger Solution to Smale's Seventeenth Problem for Strongly Sparse Systems*.

In 1999, Steve Smale published a list of 18 mathematical questions for the 21st century. The seventeenth problem was the following: Find an algorithm that computes an approximate root of a random polynomial system in polynomial time on average. While there has been recent major progress on this problem, the notion of randomness was (perhaps intentionally) left vague. This project gives a positive answer to Smale's Seventeenth Problem for a particular family of sparse systems; moreover, this algorithm runs in logarithmic time — a significant improvement on the time complexity that Smale desired. (Received August 13, 2015)