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Eugene Gorsky*, Department of Mathematics, One Shields Avenue, Davis, CA 95616, and
Andrei Negut and **Jacob Rasmussen**. *Khovanov-Rozansky homology and Hilbert schemes*.

I will outline several conjectures relating the Khovanov-Rozansky homology of knots and links to algebraic geometry of the Hilbert scheme of points on the plane. For a large class of knots and links, this yields a very concrete combinatorial description of Khovanov-Rozansky homology, which was recently confirmed by Elias, Hogancamp and Mellit. (Received August 19, 2017)