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Jens Niklas Eberhardt, Grégoire Naisse and Arik Wilbert* (arik.wilbert@uga.edu). *Real Springer fibers and odd arc algebras.*

Arc algebras were introduced by Khovanov in a successful attempt to lift the quantum \mathfrak{sl}_2 Reshetikhin–Turaev invariant for tangles to a homological invariant. When restricted to knots and links, Khovanov’s homology theory categorifies the Jones polynomial. Osváth–Rasmussen–Szabó discovered a different categorification of the Jones polynomial called odd Khovanov homology. Recently, Naisse–Putyra were able to extend odd Khovanov homology to tangles using so-called odd arc algebras which were originally constructed by Naisse–Vaz. The goal of this talk is to discuss a geometric approach to understanding odd arc algebras and odd Khovanov homology using Springer fibers over the real numbers. (Received March 07, 2021)