Zajj B Daugherty* (zdaugherty@gc.cuny.edu), The City College of New York, Department of Mathematics, 160 Convent Ave, New York, NY 10031, and Nicolle Gonzáles, Lisa Schneider and Louise Sutton. Degenerate two boundary BMW algebras. Preliminary report.

The Birman-Murakami-Wenzl (BMW) algebras and their generalizations arise both as diagram algebras and as algebras of operators that preserve symmetry in tensor products of simple modules for symplectic and orthogonal Lie algebras and quantum groups. Their diagrammatic presentations are that of tangles, potentially in spaces with one or more puncture. They are fundamental to realizing certain knot and link invariants, but also have ties into lattice models in Statistical Mechanics. In this talk, we will introduce specifically the degenerate two-boundary BMW algebras and explore some of their algebraic and combinatorial structure. (Received August 31, 2020)