962-20-1134 **Matthew G Zinno*** (matzinno@math.columbia.edu). *Braid group linearity and the BMW algebra.*

The Birman-Murakami-Wenzl (BMW) algebra consists of sums of braid-like diagrams, under relations resembling isotopies. The braid group B_n maps into the algebra and acts on it, and we can list finitely many irreducible representations of B_n for any n. One of these representations (for every n) turns out to be the Krammer-Lawrence representation, which has come under recent study. This representation has been previously described through braid actions on objects called *forks* in a punctured disk, and also through actions on the second homology of a covering space of a certain 4-dimensional configuration space. In fact, the representation has been proven to be faithful using each of these descriptions. This talk will introduce both the BMW algebra and the Krammer-Lawrence representation, then briefly identify the connection between them by describing how forks can be represented in the algebra. (Received October 02, 2000)