

Meeting: 1000, Albuquerque, New Mexico, SS 14A, Special Session on Braids and Knots

1000-57-81 **James Conant*** (jconant@math.utk.edu), Department of Mathematics, University of Tennessee, Knoxville, TN 37996-1300, and **Jacob Mostovoy** and **Ted Stanford**. *A variation on finite type knot invariants.*

We study a variation of the theory of finite type knot invariants where the basic move of “crossing change” is replaced by the “doubled delta move.” One way of describing the move is that it ties a copy of the borromean rings into three antiparallel pairs of strands. It is a special case of the “null move” studied by Garoufalidis, Krieger and Rozansky, for which the rational lift of the Kontsevich integral is a universal invariant. Intriguingly, we find several $\mathbb{Z}/2$ -valued doubled delta type one invariants, possibly the tip of an infinite family. (Received August 16, 2004)