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Rhea Palak Bakshi* (rhea_palak@gwu.edu), Department of Mathematics, Room 725, Phillips Hall, 801 22nd Street NW, Washington, DC 20052, and **Sujoy Mukherjee**, **Marithania Silvero**, **Józef H. Przytycki** and **Xiao Wang**. *Multiplying Curves in the Thickened $T - \text{Shirt}$.*

The discovery of the Jones polynomial in 1984 led to the development of many sharp tools in knot theory. Following this, L. Kauffman gave a nice combinatorial approach to the Jones polynomial. The Kauffman bracket skein module was introduced by J. H. Przytycki in 1987 as a generalization of the Kauffman bracket polynomial in the 3-sphere to any arbitrary 3-manifold. Since its introduction, the Kauffman bracket skein module has become central to the theory of 3-manifolds. In 1997, C. Frohman and R. Gelca established a compact product-to-sum formula for the Kauffman bracket skein algebra of the torus times the interval. We work on a similar formula for the multiplication of curves in the thickened sphere with four holes and in the poster, I will present some of our results to this end. This is joint work in progress with Sujoy Mukherjee, Józef H. Przytycki, Marithania Silvero and Xiao Wang. (Received September 03, 2018)