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. On the skein algebra of the thickened four - holed sphere.

The Kauffman bracket skein module was introduced by J. H. Przytycki 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 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)