1151-57-71 **Rhea Palak Bakshi*** (`rhea_palak@gwu.edu`), **Dionne Ibarra**, **Sujoy Mukherjee** and **Józef H. Przytycki**. *Gram Determinants in Knot Theory.*

Linking matrices, Seifert matrices and Goeritz matrices are early examples of the use of Gram type determinants in knot theory. In this talk, I will first discuss the Gram determinant of type A which was used by Lickorish to construct the Witten – Reshetikhin – Turaev invariants of 3 - manifolds combinatorially. I will then discuss the Gram determinant of type B, whose closed formula was given by Chen and Przytycki, which answered the question first posed by the late combinatorialist Rodica Simion. Finally, I will describe our work on the generalized Gram determinant of type A and the Gram determinant of type Mb. (Received August 08, 2019)