1176-11-41 **Maxim Derevyagin**, **Anastasiia Minenkova*** (`anastasiia.minenkova@uconn.edu`) and **Nathan Sun**. *A Theorem of Joseph-Alfred Serret and its Relation to Perfect Quantum State Transfer.*

In this talk we recast the Serret theorem about a characterization of palindromic continued fractions in the context of polynomial continued fractions. Then, using the relation between symmetric tridiagonal matrices and polynomial continued fractions we give a quick exposition of the mathematical aspect of the perfect quantum state transfer problem. (Received January 07, 2022)