1154-VS-2363 Eugene Fiorini (eugenefiorini@muhlenberg.edu) and Froylan Maldonado* (froylan.mal@gmail.com), 4972 Bunnell Street, San Diego, CA 92113, and Sabrina Traver, Peterson Lenard and Tony W. H. Wong (wong@kutztown. edu). On Some Properties of Latin Square Determinants.
A Latin square is an $n \times n$ matrix in which the symbols $\{1,2, \ldots, n\}$ appear in each row and column of the matrix without repetition. An isotopic Latin square is a Latin square whose first row and first column are comprised of the symbols $\{1,2, \ldots n\}$ in order. Two Latin squares are in the same isotopic class if one can be transformed into the other by a series of row, symbol, and column permutations. In this talk, we discuss the determinants of various $n \times n$ Latin squares, the correlation between isotopic classes and those determinants, and several integer sequences associated with those isotopic classes. (Received September 17, 2019)

