1146-51-356 **Yang Xiao*** (yang_xiao@brown.edu), Brown University Box 1917, 151 Thayer St, Providence, RI 02912. *Automorphisms of the k-curve Graph.*

Given an orientable surface S of finite type, we define its k-curve graph to be the graph with vertices corresponding to isotopy classes of essential simple closed curves on S, and with edges between two vertices if they admit representatives that intersect geometrically at most k times. For any surface with genus greater than 2, we show that the automorphism group of the 1-curve graph is isomorphic to the extended mapping class group, resolving a conjecture of Schmutz-Schaller. More generally, we can extend the same result to k-curve graph for surfaces with large genus with respect to k. This project is joint work with Tarik Aougab, Yassin Chandran, Marissa Loving, Roberta Shapiro, and Rob Oakley. (Received January 26, 2019)