1086-20-1654   **Benjamin Steinberg*** (`bsteinberg@ccny.cuny.edu`), Department of Mathematics, City College of New York, 138 St at Convent Avenue, New York, NY 10463. *Synchronizing groups: a survey.* Preliminary report.

Synchronizing groups form a class of finite permutation groups lying between the class of primitive permutation groups and doubly transitive groups. They were first considered by the speaker in 2005, and then a year later by Joao Araujo. The original motivation came from Cerny's conjecture in automaton theory. However, interesting connections with combinatorics were found by Peter Neumann, Peter Cameron and others.

In this talk, we give a brief survey of this interesting subject. All results discussed are a subset of results by J. Araujo, P. Cameron, P. Neumann, C. Schneider, P. Spiga and the speaker. (Received September 23, 2012)