1135-05-837 **Anthony Bonato*** (abonato@ryerson.ca), Department of Mathematics, 350 Victoria St, Toronto, Ontario M6R1T5, Canada. *Enemies of enemies are friends: the ILAT model for complex networks.*

In structural balance theory, edges emerge in networks via transitivity (friends of friends are friends) and anti-transitivity (enemies of enemies are friends). While transitivity has received ample attention by complex network researchers, much less work has been done on modeling anti-transitivity.

We present a dynamic, deterministic model based on the principle of anti-transitivity. In the Iterated Local Anti-Transitivity (ILAT) model, for every node u in a given time-step, we add a node that is joined to the complement of the closed neighborhood of u. The ILAT model satisfies several properties observed in complex networks, such as densification power laws, constant diameter, and high local clustering. (Received September 15, 2017)