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Salam Md. Mahbubush Khan* (khan@math.fsu.edu), Department of Mathematics, Alabama A&M University, 4900 Meridian Street, Normal, AL 35762. *Stochastic dynamical model of social conflict and cooperation.*

Here we introduced a stochastic dynamical conflict model for multi-opponent and consider the associated dynamical system for a finite collection of positions. Opponents have no strategic priority with respect to each other. The conflict interaction among the opponents only produces a certain redistribution of common area of interests. The limiting distribution of the conflicting areas, as a result of ‘infinite conflict interaction for existence space, is investigated. Next we extend our conflict model and propose conflict and cooperation model, where some opponents cooperate with each other in the conflict interaction. Here we investigate the evolution of the redistribution of the probabilities with respect to the conflict and cooperation composition, and to determine invariant states by using computer simulation. (Received September 19, 2010)