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Amarjit Budhiraja* (budhiraj@email.unc.edu), Dept. of Statistics and OR, UNC-Chapel Hill, Chapel Hill, NC 27516. *Scaling Limits for Large Stochastic Networks*.

We discuss several models for large stochastic networks given as weakly interacting pure jump (controlled) Markov processes. Under suitable scaling we establish diffusion approximations, limits of stochastic control problems, and of many-player stochastic dynamic games. Some features of limit models include infinite dimensional state descriptors, degenerate diffusions, and mean field games for reflected processes. Based on joint works with Erhan Bayraktar, Asaf Cohen and Eric Friedlander. (Received July 13, 2017)