**Meeting:** 998, Houston, Texas, SS 22A, Special Session on Mathematical Problems in the Analysis of Synchronous States in Networks

998-37-395 **Franco Bagnoli** (franco.bagnoli@unifi.it), Via S. Marta 3, I–50139 Florence, Italy, and **Raul Rechtman*** (rrs@cie.unam.mx), Priv. Xochicalco S/N, 62580 Temixco, Mexico. *Pinching Synchronization of Coupled Map Lattices.* Preliminary report.

We discuss a kind of master-slave (m-s) and slave-slave (s-s) synchronization of coupled map lattices where the values of the state at a fraction $\epsilon$ of sites of the slaves are set equal to those of the master. We call this type of synchronization "pinching". There exists a threshold $\epsilon_c$ abowe which the systems become equal that may be different in the m-s and s-s cases. The character of the transition and the value of $\epsilon_c$ are related to the dynamic characteristics of the lattice from the point of view of stable chaos, i.e., propagation of finite differences. We also discuss the relation of this transition to directed percolation and its connection with a finite-distance chaotic indicator measured on the single trajectory, e.g., finite-distance Lyapunov exponents. (Received March 02, 2004)