998-34-102 Yunjiao Wang\* (yunjiao@math.uh.edu), Department of Mathematics, University of Houston, Houston, TX 77204-3008, and Martin Golubitsky (mg@math.uh.edu), Department of Mathematics, University of Houston, Houston, TX 77204-3008. Two-Color Patterns of Synchrony in Lattice Dynamical Systems.

We consider patterns of synchrony of four kinds of lattice dynamical systems: Square and hexagonal lattice differential equations with nearest neighbor and with nearest and next nearest neighbor coupling. We find all two-color patterns of synchrony of the lattice dynamical systems in these four cases, and prove that equilibria associated to each such pattern can be obtained by codimension one synchrony-breaking bifurcation from a fully synchronous equilibrium. (Received February 16, 2004)