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Street, West Lafayette, IN 47907-2067. *Quotient Networks*.

A coupled cell network is coupled system of ODE's. Every coupled cell system, when restrict to a flow-invariant subspace defined by equality of certain cell coordinates, is associated with a quotient network. Given a (quotient) network, we describe a general method to construct coupled cell networks admitting it as a quotient. Also, we investigate the impact of a generic codimension-one synchrony-breaking bifurcation from a synchronous equilibrium, occurring in the quotient network, for the different networks having it as a quotient network. (Received August 05, 2007)