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SYMPOSIUM ON SYNCHRONIZATION OF CHAOTIC SYSTEMS

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ABSTRACTS

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Chaos Synchronization in Unidirectionally Coupled Maps

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Chaos synchronization in unidirectionally coupled logistic maps is studied. Stability of the synchronous chaotic attractor(SCA) begins to lose when the first perioddc saddle embedded in the SCA becomes unstable transversely. We find two types of transverse bifurcations leading to desynchronization of the SCA: supercritical period-doubling and transcritical contact bifurcation. We will show that depending on the type of the transverse bifurcations, the SCA follows different routes to desynchronization.