



Output Synchronization of Chaotic Systems: Model-Matching Approach with Application to Secure Communication

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Abstract: In this paper, a method for synchronizing chaotic systems in continuous-time is presented. The approach, which exploits the model-matching problem from nonlinear control theory, is advantageously applied to achieve complete synchronization and output synchronization of identical and nonidentical chaotic systems, respectively. Some potential applications to secure communication for audio and binary information signals are also given.

Keywords: *Chaos synchronization; model-matching problem; encryption; secure communication.*

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