CHAOS CONTROL AND CHAOS SYNCHRONIZATION OF FRACTIONAL ORDER SMOOTH CHUA'S SYSTEM

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Abstract. In this paper, we investigate the stabilization and synchronization of the fractional order smooth Chua's system. Simple control laws are designed to stabilize the fractional order smooth Chua's system or to synchronize two such chaotic systems. Using mathematical analysis, we prove the correctness of our results. Numerical simulation indicates that the designed control laws are applicable and effective.

Keywords. Fractional order smooth Chua's system; Chaos control; Chaos synchronization.

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