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SYNCHRONIZATION BETWEEN TWO NON IDENTICAL FRACTIONAL ORDER HYPERCHAOTIC SYSTEMS

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Abstract. In this paper we have investigated chaos synchronization between the two non- identical fractional order hyperchaotic systems using feedback control technique. The hyperchaotic system introduced by Xin and Ling has been synchronized with the Lü like hyperchaotic system. The analytical conditions for the synchronization of this pair of different fractional order hyperchaotic systems are derived by using Laplace transform. Numerical simulations are carried out using Matlab to show the effectiveness of the method.

Keywords: synchronization; hyperchaotic system; Lü like system.

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1. Introduction

Chaotic systems are characterized by their sensitive dependence on initial conditions. Chaos synchronization has attracted a great deal of attention since the seminal work by Pecora and

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