

Abstract Submitted
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Dynamics of a Pair of Coupled Fractional Oscillators NARAHARI ACHAR, TANYA PROZNY, JOHN HANNEKEN, University of Memphis — The integral equations of motion of a pair of coupled fractional oscillators are obtained by generalizing the equations of motion of a pair of coupled harmonic oscillators to integrals of fractional order. The Greens function dynamic response to sinusoidal forcing is given in terms of Mittag-Leffler functions. A direct and transparent derivation of the results of Ryabov and Puzenko obtained by a tedious perturbation method is presented.

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