

Abstract Submitted
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Stochastic “Time” TORU OHIRA, Sony Computer Science Laboratories, Inc. — We present a simple dynamical model which uses “non-locality” and “noise” on time axis. The model is a delayed dynamical map model with a stochasticity on the variable corresponding to “time” steps. The analogy is made with a tape recorder whose recording device can move back on a tape as it records the values of the dynamical variable. With a tuned probability of “moving backward” with a given delay, the dynamics of the model shows an oscillatory behavior, similar to the one found in the models of stochastic resonance. We discuss implication of this model and whether it provides any reasonable approach to considering “non-locality” and “noise” on time axis.

References:

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- [2] T. Ohira, ArXive: cond-mat/0610032 (To appear in the AIP conf. proc. of the 9th Granada Seminar, Granada, Spain, September 11-15, 2006.)
- [3] T. Ohira and Y. Sato, PRL 82, 2811 (1999).

Toru Ohira
Sony Computer Science Laboratories, Inc.

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