

Behavior of coupled Rayleigh oscillators at bifurcation point neighborhood

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Coupled Rayleigh oscillators model, which is block-slider model applying Rayleigh's friction model, could reproduce the statistical and time series property of seismic activity of reality. In the current simulation, we changed the model parameters by trial and error and employed the value which reproduced seismic activity. But the dependency of model behavior to the parameters is not analyzed systematically. We investigate it by changing the model parameter systematically and find that the complex behavior like seismic activity appears at neighborhood of bifurcation point.