

Nonlinear Oscillations & Waves (Numerical Simulation)

- Harmonic oscillator (+ damped oscillator, forced oscillator) Note: It's linear !
- Van der Pol oscillator
- Duffing oscillator 1 / Duffing oscillator 2 (with two initial conditions which are slightly different from each other)
- Duffing oscillator 3 / Duffing oscillator 4 (with two initial conditions which are slightly different from each other)
- Lotka-Volterra model (2 variables)
- FitzHugh-Nagumo oscillator
- Oregonator
- Brusselator
- Coupling of two linear oscillators 2

- Kuramoto model

 - Oscillators coupled with local interaction

 - Coupled Oscillator Systems (Case of the Millennium Bridge)
 - ref : S. H. Strogatz, "Crowd synchrony on the Millennium Bridge", Nature vol.438 p. 43

 - KdV equation

 - Kuramoto-Shivashinsky equation
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