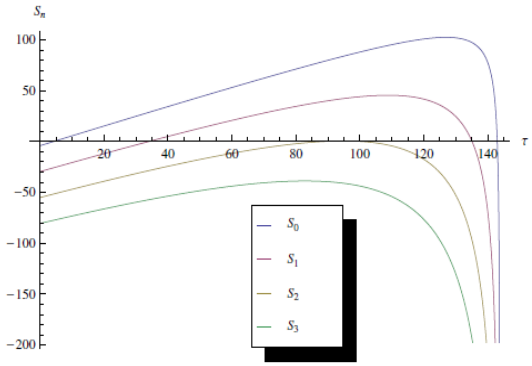
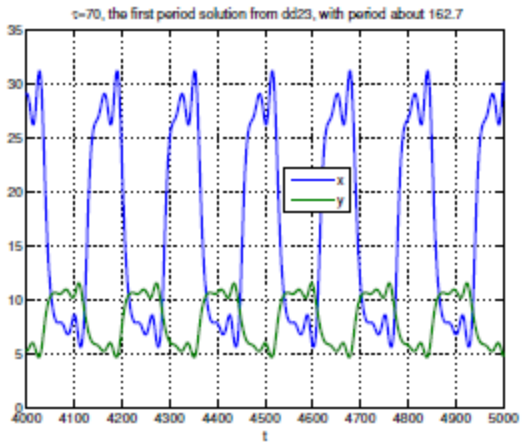
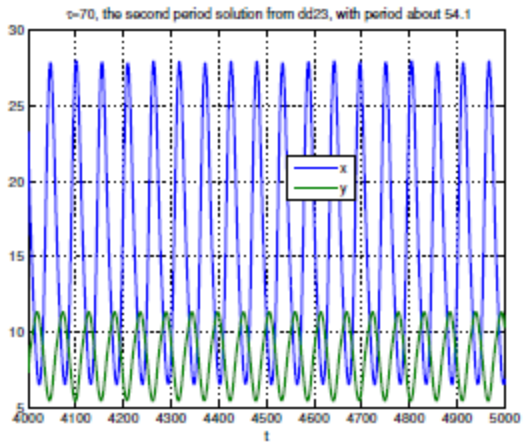
Math 663

Delay Differential Equations with Applications







Course description:
Delay differential equations have many applications in physics, chemistry, biology, engineering, economics, etc. The principal purpose of this course is to provide examples of delay differential equations, comparison of ordinary differential equations and delay differential equations, delayed negative feedback, existence and uniqueness of solutions, continuous dependence, invariance, local stability analysis, global stability analysis, Hopf bifurcation.

Prerequisites: Ordinary Differential Equations (Math 201 or Math 334 or Math 432 or Math 524).

Expectations:
NO EXAM!
The course has 3-4 homework assignments, a final project and a final presentation.

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