

Consortium for Ordinary Differential Equations Experiments

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The sponsors of the ODE Consortium and the institutional representatives are:

- Cornell University:** John Hubbard and Beverly West
- Harvey Mudd College:** Robert Borrelli(PD/PI) and Courtney Coleman(Co-PI)
- Rensselaer Polytechnic Institute:** William Boyce and Ash Kapila
- St. Olaf College:** Arnold Ostebee and Paul Zorn
- Washington State University:** Michael Kallaher and Michael Moody
- West Valley College:** Wade Ellis and Douglas Campbell

The goal of the ODE Consortium, which is composed of two faculty from each of the six sponsoring institutions, is to distribute information on the design and use of interactive computer experiments in courses involving ODEs. The Consortium is funded by the NSF through the Division of Undergraduate Education and sponsors summer faculty workshops towards this goal.

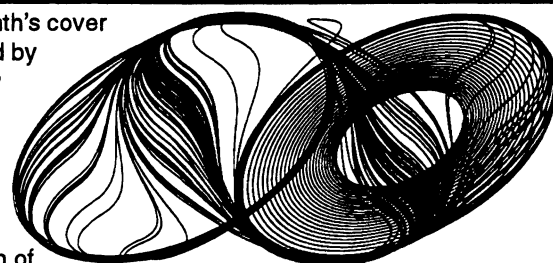
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Submission of articles or papers on the use of computer experiments for ODE instruction are welcome. This newsletter is produced entirely by computerized typesetting, and we prefer to receive all text and graphics by e-mail or ftp. For specific information about file formats and standards please e-mail to codee@jarthur.claremont.edu. We accept printed submissions and subscription requests from anyone without network access. Mail us at: CODEE, Math Dept., Harvey Mudd College, Claremont CA, 91711.

This month's cover (provided by Courtney Coleman and Bob Borrelli) shows the xz projection of



a solution curve of one of Chua's nonlinear scroll circuit models. The ODE's and the data are $x'=33f$, $y'=f-z$, $z'=y$; $x(0)=y(0)=z(0)=1$, where $f=0.07(y-x)-0.085(ly-x+1l-ly-x-1l)$ is the voltage-current characteristic across a tunnel diode, and x, y , and z are voltage drops across capacitors and an inductor in the circuit. The voltages and the current spiral away from equilibrium and into a region of chaotic wandering. The graph here and on the cover were generated using **MATHLIB**.

The editors of **C•ODE•E** invite you to send in your favorite graph of a dynamical system for use in future issues. Mathematical art may be exhibited at appropriate conferences whether or not it is used on the cover of any future issues of **C•ODE•E**.