



A Brief Story of
Duke's Center for Nonlinear and Complex Systems

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Some History—Act I

Founded in the time of Provost Phillip Griffiths
(circa 1990)—

Key support provided by Deans Earl Dowell (School of Engineering, and Malcolm Gillis + Richard White, Arts and Sciences)

Through the years, substantial Support has come through the Provost's Office (e.g. office of John Harer) the Medical School, the Nicholas School of the Environment, the School of Engineering and Arts and Sciences

Some History—Act II

- Initiators were Peter Haff, David Schaffer and RPB
- Initial trust involved hiring three Duke faculty, using Provost's Common Fund
- Three faculty members were: Joshua Socolar (Physics)
Peter Thompson (ME), and Will Wilson (Biology)

Some History—Act III

The Center grew out of the recognition that there were many researchers with overlapping interests in the insights offered first by dynamical systems theory, and later by other methods/fields/approaches, such as networks, glassy behavior, nonlinear PDE's...

At any given time, perhaps 25 faculty have been associated with the CNCS, from departments spanning The Engineering disciplines, Mathematics, Physics, Biology, Chemistry, Computer Science, occasionally Social Sciences...

Some History—Act IV

Other functions provided by the CNCS:

- Regular CNCS seminar series
- Creation of a Graduate Certificate Program associated with this is a course listing PHY 201 Somewhere between 20 and 30 students have participated
- Seeding of research projects—Duke's effort in granular materials, in heart dynamics, in thin films, stability of mechanical systems, etc.
- Creation of a courses in basic and advanced techniques of nonlinear dynamics, e.g. PHY 213 and PHY 313