

Extrait du <BR/>UREM :<BR/>Unité de Recherche sur l'Enseignement des Mathématiques

<http://www.ulb.ac.be/sciences/urem>

# Equations différentielles : un cours sur MIT Opencourseware

- Extra-muros -



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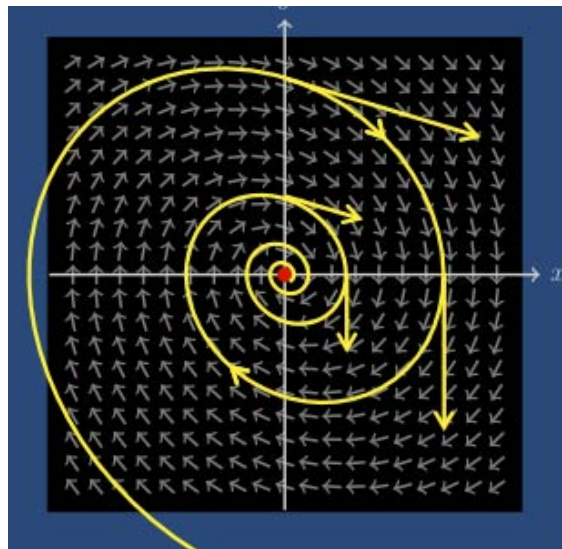
Source : <http://ocw.mit.edu/courses/mathematics/18-03sc-differential-equations-fall-2011/>

## Differential Equations

Instructors :

- ▶ Prof. Arthur Mattuck
- ▶ Prof. Haynes Miller
- ▶ Dr. Jeremy Orloff
- ▶ Dr. John Lewis

Level : Undergraduate



Phase portrait of a damped harmonic oscillator. (Courtesy of Jeremy & Joel Orloff.)

## Course Description

The laws of nature are expressed as differential equations. Scientists and engineers must know how to model the world in terms of differential equations, and how to solve those equations and interpret the solutions. This course focuses on the equations and techniques most useful in science and engineering.

## Course Format

Click to get started. This course has been designed for independent study. It provides everything you will need to understand the concepts covered in the course. The materials include :

- ▶ Lecture Videos by Professor Arthur Mattuck.
- ▶ Course Notes on every topic.
- ▶ Practice Problems with Solutions.
- ▶ Problem Solving Videos taught by experienced MIT Recitation Instructors.
- ▶ Problem Sets to do on your own with Solutions to check your answers against when you're done.
- ▶ A selection of Interactive Java® Demonstrations called Mathlets to illustrate key concepts.

- ▶ A full set of Exams with Solutions, including practice exams to help you prepare.
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