CPS 250: Numerical Analysis
Spring, 2007

Time: 11:40am –12:55pm TuTh
Class location: D243 LSRC

Instructor:
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TAs:
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Prerequisites:
- Calculus
- Linear algebra
- Some knowledge of computer arithmetic and architectures
- Some experience of computer programming

Two tracks of workload and grading
- Track A.
  - 6 homework assignments (50%)
  - 2 in-class open-books exams (50%)
- Track B.
  - 6 homework assignments (25%)
  - 2 in-class open-books exams (50%) (with a different set of exam problems)
  - 1 research project (25%)

Schedule
- Interpolation and data fitting (1 week)
- Numerical sampling in differentiation and integration (1.5 weeks)
- Numerical linear algebra (1.5 week)
- Fourier analysis and the use of DFT (1 week)
- Numerical solution of nonlinear equations (1.5 week)
- Numerical solution of Ordinary Differential Equations (1.5 weeks)
- Numerical solution of partial differential equations (6 weeks)
- Introduction to other advanced Topics (the rest)