CAAM 564: Numerical Optimization (Spring, 2009)

- **Instructor:** Yin Zhang, Room: DH 3090, Phone: X5744.

- **Office Hours:** Wed: 1:00–3:00pm or by appointment.


- **Course Webpage:** [http://www.caam.rice.edu/~zhang/caam564/](http://www.caam.rice.edu/~zhang/caam564/)

- **Coverage:**
  1) Review of constrained optimization theory (Chap. 12)
  2) Trust region methods for unconstrained optimization (Chap. 4)
  3) Linear programming theory and algorithms (Chaps. 13-14)
  4) Nonlinear programming algorithms (Chaps. 15-19).

  Part 1) will be covered without detailed proofs since a more thorough treatment of this subject is given in CAAM 560. Part 3), linear programming, will be also be treated in a brief way. The primary emphasis of the course is on Part 4).

- **Prerequisites:** CAAM 453/4 (matrix analysis, multivariable calculus, Matlab)

- **Course Work:**
  Homework problems, including computer programming, will be assigned. Late submissions will be accepted for 80% of the credit until the third day after the due date, or otherwise with the permission of the instructor. There will be no exams.

- **Honor Code Policy:**
  Students can discuss assignments with each others, but must carry out the work independently. Copying or sharing any part of an assignment, especially computer codes, is strictly prohibited.

- **Grading:**
  Homework 90%; Participation: 10%