

Amin Jafarian

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Research Interests

Information Theory, Communication Networks and Optimization

Education

- **PhD.** in Electrical and Computer Engineering, University of Texas at Austin (UT), Austin, Texas, Fall 07-present - GPA 4.0
Advisor: Prof. Sriram Vishwanath
- **M.Sc.** in Electrical and Computer Engineering, University of Texas at Austin (UT), Austin, Texas, Fall 05-07 - GPA 3.92
Advisor: Prof. Sriram Vishwanath
- **B.Sc.** in Electrical Engineering, Sharif University of Technology (SUT), Tehran, Iran, Fall 01-05 - GPA 3.6

Honors & Awards

- Silver medal in 42nd International Mathematics Olympiad (IMO), 2001
- Gold medal in 18th Iran National Mathematics Olympiad, 2000
- Silver medal in 17th Iran National Mathematics Olympiad, 1999

Publication and Presentation

- A. Jafarian, S. Vishwanath, *On the Capacity of One-sided Two user Gaussian Fading Broadcast Channels*, Globecom Dec 08.
- S. Sridharan, A. Jafarian, S. Vishwanath, S. A. Jafar, *Title: A Layered Lattice Coding Scheme for a Class of Three User Gaussian Interference Channels*, Globecom Dec 08.
- S. Sridharan, A. Jafarian, S. Vishwanath, S. A. Jafar, S. Shamai, *Capacity of Symmetric K-User Gaussian Very Strong Interference Channels*, Allerton Sep 08.

- A. Jafarian, J. Jose, S. Vishwanath, *On the Capacity of Fading Broadcast Channel*, presentation, ITA workshop, Jan 08.
- A. Jafarian, *An Algorithm in Extrapolating the Band-Limited Signals*, presentation, National Instrument, May 06.

Experiences

- **Internship** EPFL, Switzerland, Summer 08
 - Supervisor: Christina Fragouli
- **Internship** MAHVA Communication Company, Summer 04
- **Research assistant** Wireless, Networks and Communication Group, University of Texas at Austin, under supervision Sriram Vishwanath, 05-present
- **Teaching experience**
 - Teaching Assistant, Cryptography, UT, Fall 06.
 - Teaching Assistant, Introduction to C Programming, UT, Spring 06.
 - Teaching Assistant, Graduate DSP, Sharif Univ. of Tech, Fall 04.
 - Instructor and designer of National Math Olympiad exams, Young Scholars Club (YSC), 01-05.

Courses

- *Electrical Engineering*: Probability & Stochastic Process, Digital Communications, Information Theory, Channel Coding, Analysis And Design Of Comm. Network, Adv. Topics In Channel Coding, Adv. Telecomm. Networks, Convex Optimization
- *Mathematics*: Algebraic Structure, Algebra I, Algebraic Combinatorics, Linear Algebra, Combinatorics and its Application
- *Operational Research*: Nonlinear Optimization, Systems Analysis
- *Other*: Combinatorics and Graph Theory, Microeconomics I

Computer skills

- *Operating systems*: Windows, Linux, Unix.
- *Languages*: C, Linux Shell Programming, MYSQL, PHP, CGI, HTML, Pascal, Delphi, Assembly.
- *Applications*: MATLAB, Mathematica, GAMS, ORCAD, KEIL.