

ILYA DUMER

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FIELDS OF EXPERTISE

Information Theory and Coding Theory, Communications, Data Protection
Areas of emphasis: Error-Correcting Codes and Decoding Algorithms

PROFESSIONAL EXPERIENCE

- 1995-to date** *Professor* at the EE Department, University of California, Riverside. Teaching and research in Communication and Coding.
- 1983-1995** *Researcher and Senior Researcher* at the Institute for Information Transmission Problems, Russian Academy of Sciences. Research in coding techniques.
- 1979-1983** *Head of the Engineering Team* at the Moscow Public Health Computer Center. Design of data processing systems.
- 1976-1979** *Engineer* at the Institute of Space Research, Russian Academy of Sciences. Design of data processing systems for space research.

EDUCATION

- 1977-1981** Institute for Information Transmission Problems, Russian Academy of Sciences. Thesis: "Cascaded decoding and code constructions for discrete and semicontinuous channels". **Ph.D.** in Technical Science.
- 1970-1976** Dept. of Radioelectronics, Moscow Institute of Physics and Technology, USSR. Thesis: "Some New Uniformly Packed Codes". **M.Sc.** (summa cum laude) in Electrical Engineering.

AWARDS

- 2003** *Best Mentor award*, College of Engineering, UC Riverside.
- 2001** *Best Teacher award*, College of Engineering, UC Riverside
- 1993-1994** *Alexander von Humboldt Research Fellow*, Institute for Experimental Mathematics, Essen University, Germany
- 1992-1993** *Royal Society Guest Research Fellow*, Manchester University, UK

NSF GRANTS

- 2006-2009** "Dynamics of an open quantum system: decoherence processes and encoded control";
"Digital Fingerprinting: Information Theoretic Analysis and Code Design"
- 1997-2001** "Near-maximum likelihood decoding techniques with reduced complexity"
- 2001-2005** "Recursive decoding for Reed-Muller codes and their modifications"

MEMBERSHIPS

- 2004** *IEEE Senior Member*
- 2007** *IEEE Fellow*

PUBLICATIONS

About 100 publications, including 50 papers in refereed journals or books.

TEACHING

- 1996-date** Courses: Electric Circuits, Analog and Digital Communication for undergraduates; Digital communication and Coding Theory for graduate students.
Thesis adviser for M.Sc. and Ph.D. students; University of California, Riverside.
- 1988-1993** Advising graduate students, Manchester University, UK. Undergraduate Courses in Coding Theory, Moscow Institute of Physics and Technology (MIPT), USSR.

OTHER ACTIVITIES

Member of Program Committees of International Symposia and Workshops on Information & Coding theory, 1977-2007;

Associate Editor for Coding Theory, IEEE Transactions on Information Theory, 2006-2009

Visiting Positions: AT&T Bell Laboratories, Murray Hill, NJ (1995), Institute of Experimental Mathematics, Essen, Germany (1993-1994), Manchester University, UK (1992-1993), Ecole Nationale Supérieure de Telecommunication, Paris, France (1992), Eindhoven University of Technology, the Netherlands (1991), Turku University, Finland (1991), Technical High School, Darmstadt, Germany (1989).

Invited speaker: International conferences held in 1989 - 2004 in the USA, Germany, Hungary, France, UK, Italy, Sweden, Bulgaria, Russia.

IEEE student branch counselor, UC Riverside chapter, 1998 - to date.