



**The Lynne and William Frankel Center
for Computer Science**
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Distinguished Lecturer Series



Prof. Alon Orlitsky
University of California, San Diego
Jacobs School of Engineering, ECE & CSE

Probability Estimation over Large Alphabets

Many applications call for estimating probabilities of rare, even previously unseen, events. We briefly describe the problem's theory, applications to classification and data compression, relation to works by Fisher, Shakespeare, Laplace, Good, Turing, Hardy, Ramanujan, and Shannon, and recent constructions of asymptotically optimal estimators. The talk is self contained and based on work with P. Santhanam, K. Viswanathan, J. Zhang, and others.

Alon Orlitsky received B.Sc. degrees in Mathematics and Electrical Engineering from Ben-Gurion University in 1980 and 1981 and M.Sc. and Ph.D. degrees in Electrical Engineering from Stanford University in 1982 and 1986.

From 1986 to 1996 he was with the Communications Analysis Research Department of Bell Laboratories. He spent the following year as a quantitative analyst at D.E. Shaw and Company, an investment firm in New York city. In 1997 he joined the University of California, San Diego, where he is currently a professor of Electrical and Computer Engineering and of Computer Science and Engineering, and directs the Information Theory and Applications Center.

Alon's research concerns information theory, statistical modeling, machine learning, and speech recognition. He is a recipient of the 1981 ITT International Fellowship and the 1992 IEEE W.R.G. Baker Paper Award, a co-recipient of the 2006 Information Theory Society Paper Award, a fellow of the IEEE, and holds the Qualcomm Chair for Information Theory and its Applications at UCSD.

13:00-14:00 on Thursday, 31 December, 2009—Saal Auditorium, Alon Bldg (37/202)
13:00-14:00 יום ה' 31 בדצמבר 2009—באודיטוריום סאל בבנין אלון (202/37)