

California State University, Fresno  
Spring 2008 Mathematics Lecture Series

presents

**DANIEL GOLDSTON**

San Jose State University

**“Primes and Twin Primes”**



Friday, April 4, 2008 from 4:00 to 5:00PM  
AG 109

I will talk about recent joint work of mine with Janos Pintz and Cem Yildirim on small gaps between primes. A surprising consequence of our work is that if the primes are well distributed in arithmetic progressions then one can prove results not too far from the twin prime conjecture. For example, if the Elliott-Halberstam conjecture is true then there are infinitely many pairs of primes with difference 16 or less. Unconditionally we can prove a long-standing conjecture in the field: there are pairs of primes much closer together than the average distance between consecutive primes. This work has had its share of media attention, and even generated a song on public television, and I will include some of the high and low aspects of such coverage.

*Daniel Goldston received his PhD from the University of California, Berkeley in 1981. After defending his thesis, he worked at the University of Minnesota Duluth for a year, and then spent a year at the Institute for Advanced Study in Princeton. In 1983 he was hired by San Jose State where he has been ever since, except for semesters spent at the Institute for Advanced Study in 1990, the University of Toronto in 1994, and MSRI in Berkeley in 1999.*

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**For further information call (559) 278-4009 or e-mail [mfisher@csufresno.edu](mailto:mfisher@csufresno.edu)**