

Special Colloquium Series, Spring & Fall 2005:

**Between Nature and Science:
Advanced Modeling Concepts for Environmental Sciences**



Carlos E. Puente
University of California, Davis

From Complexity to Peace

October 20th

4:00-5:00pm

PES 300I

Light refreshments provided

The last few decades have witnessed the development of a host of ideas aimed at understanding and predicting nature's ever present complexity. It is shown that such a work provides, through its detailed study of order and disorder, a suitable framework for visualizing the dynamics and consequences of mankind's ever present divisive traits. Specifically, this talk shall explain: (a) how recent universal results pertaining to multiplicative cascades and fully developed turbulence entice all of us, in a logical way, to seek peace in a condition typified by the hypotenuse of a right-angled triangle; (b) how recent universal results pertaining to the transition from order to chaos via a cascade of bifurcations point us to a serene state, symbolized by the convergence to the origin in the root of a Feigenbaum's tree, in which we all may achieve our inherently desired condition of justice and peace; and (c) how recent universal results pertaining to power-laws, self-organized criticality and space-filling transformations provide additional and pertinent reminders that point us to unity as an essential element for us to achieve peace.

Dr. Puente received his Ph. D. from the Massachusetts Institute of Technology and has been a professor at the Department of Land, Air, and Water Resources at the University of California, Davis since 1986. He is the author of over 40 refereed publications, including the book "Treasures inside the Bell. Hidden Order in Chance" and the upcoming books "The Hypotenuse. An Illustrated Scientific Parable for Turbulent Times" and "The Fig Tree and the Bell. God's Love via Modern Science." Because of his contributions, he recently was named Fellow of the International Society for Complexity, Information, and Design.

Upcoming Speakers:

10/27	Raissa D'Souza	TBA
11/3	Don Turcotte	TBA
11/10	Melanie Mitchell	The prospects and perils of complex systems modeling
11/17	Michelle Girvan	TBA
12/1	Elizabeth Bradley	Nonlinear dynamics, modeling, and the environmental sciences: ideas and tools