

# Department of Mathematical Sciences Colloquium

Tenure track faculty position candidate in Computational Mathematics

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## *Mathematical Modeling of Uncertainty in Computational Mechanics*

Mathematical modeling of real world physical processes in computational mechanics usually is based on finite precision numbers and differential equations. However in practice sometimes it is very difficult to get precise values of parameters which describe civil and mechanical engineering structures. According to many experiments and numerical simulations the influence of uncertainty is sometimes very significant from engineering and economical point of view. There are many methods of mathematical modeling of uncertainty. One of the most promising are based on imprecise probability. In this lecture an efficient methods of numerical solution of differential equations with uncertain (interval, random and fuzzy parameters) parameters and its applications will be presented.

**Tuesday, March 7, 2006, at 3:00 pm in Bell Hall 143  
The University of Texas at El Paso**

Please note the unusual day for the Colloquium.

Refreshments will be served in front of the colloquium room 15 minutes before the start of the colloquium.

For further information, please contact Dr. Pavel Šolín, Bell Hall 220. Phone: (915) 747-6770, email: [solin@utep.edu](mailto:solin@utep.edu).