

Mechanical Engineering Professor Krechetnikov Receives DARPA Young Faculty Award



Mechanical Engineering professor, Rouslan Krechetnikov has been awarded a DARPA Young Faculty Award, announced September 19, 2011. His award is for a proposal entitled, "Low-dimensional modeling and identification of finite-amplitude instabilities in complex systems."

"Finite-amplitude instabilities occur in a wide variety of natural and engineering systems," said Professor Krechetnikov. "The key idea is to develop a new robust mathematical framework to quantify probability of the transition to finite-amplitude unstable states in complex systems with stochastic effects. In conjunction with topological approaches this will enable development of low-dimensional models for complex systems."

"This is a wonderful honor for Professor Krechetnikov, and for the Department of Mechanical Engineering. He was awarded the NSF CAREER award earlier this year, and this is yet another recognition of his potential," commented Professor Kimberley Turner, Chair of the Mechanical Engineering department at UCSB. "His proposed fundamental work on the modeling of finite-amplitude instabilities in complex systems has wide-ranging implications in many fields. I am very pleased to see that Dr. Krechetnikov is continuing the tradition of strong junior faculty in Mechanical Engineering."

The objective of the DARPA Young Faculty Award (YFA) program is to identify and engage rising research stars in junior faculty positions at U.S. academic institutions and expose them to Department of Defense needs as well as DARPA's program development process.

The YFA program provides funding, mentoring, and industry and DoD contacts to awardees early in their careers so they may develop their research ideas in the context of DoD needs. The program focuses on untenured faculty, emphasizing those without prior DARPA funding. The long-term goal of the YFA program is to develop the next generation of academic scientists, engineers and mathematicians in key disciplines who will focus a significant portion of their career on DoD and national security issues.

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