

# The 19<sup>th</sup> U.S.–Korea Forum on Nanotechnology

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Dmitri Strukov is a Professor of Electrical and Computer Engineering at the University of California, Santa Barbara. Prior to joining UCSB, he was a postdoctoral associate at Hewlett-Packard Laboratories, where he worked on various aspects of nanoelectronic devices and systems. He earned an M.S. in Applied Physics and Mathematics from the Moscow Institute of Physics and Technology in 1999, and a Ph.D. in Electrical Engineering from Stony Brook University, New York, in 2006. He is a Fellow of the IEEE.

Professor Strukov's research broadly focuses on various aspects of computation, particularly on how to perform computation efficiently across different levels of abstraction. His work spans multiple disciplines, including materials science, device physics, circuit design, high-level computer architecture, and algorithms, with an emphasis on emerging device technologies. Over the past decade, his primary research has centered on neuromorphic computing. More recently, he has focused on implementing hardware security circuits and accelerators for solving optimization problems using in-memory computing architectures. These architectures leverage both conventional and emerging memory technologies, such as resistive switching devices ("memristors") and embedded floating-gate memory devices.