

The Spookiness of the Quantum World

$$i\hbar \frac{\partial \psi}{\partial t} = -\frac{\hbar^2}{2m} \nabla^2 \psi + V \psi$$



Science and Mathematics Colloquium Series

Presentation by Maxim Sukharev
Associate Professor of Physics
College of Integrative Sciences and Arts

Wednesday, Jan. 31, 2018
3 – 4 p.m.

Student Union, Cooley Ballroom B
ASU Polytechnic campus

Professor Sukharev has always been fascinated by the mysteries of the universe: “I wondered, would it ever be possible to comprehend the vastness of the cosmos or the weird relativity tricks the time-space fabric plays on us (think time dilation and black holes). Nothing flabbergasted me more than my first encounter with quantum mechanics and its elegant mathematical beauty.”

In this lecture Sukharev shares his never-ending fascination with the quantum world, discussing wave-particle duality, the correspondence principle, entanglement, quantum eraser, the uncertainty principle, many-worlds interpretation, the Schrodinger's cat paradox and more — using general principles (without any mathematics). He promises to turn your worldview upside down!

Faculty and practitioners discuss their current research and field projects in the Science and Mathematics Colloquium Series, held throughout the academic year at ASU's Polytechnic campus. All seminars are free and open to the public.

Maxim Sukharev's scientific career began in 2001 as a researcher in Professor Annick Suzor-Weiner's molecular photophysics laboratory, University of Paris - South (Orsay) on a postdoctoral fellowship from the French National Center for Scientific Research. His second postdoctoral appointment was in Northwestern University's Department of Chemistry, with Professor Tamar Seideman.

Sukharev joined ASU as an assistant professor in 2008. His expertise is in the research fields of quantum optics of materials, fundamental properties of light-matter interactions, and computational electrodynamics. His awards include visiting chairs, fellowships and scholarships in France, Brazil, Israel, and with the US Air Force.

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