

Energy Colloquium

Quantum Engineering: Theory, Design and Promise of Quantum Coherent Macroscopic Structures

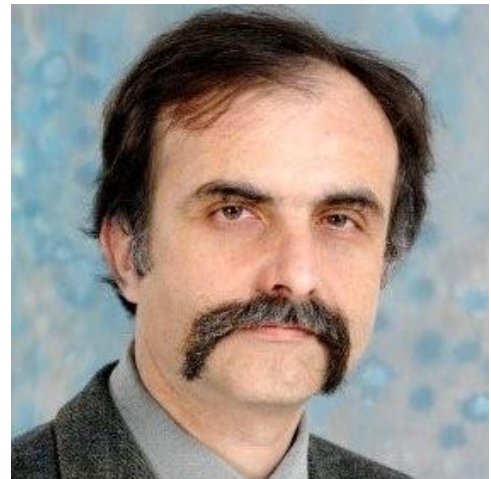
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Skolkovo Innovation Center

Technopark, Building 3, Room 407



ABSTRACT:

Much of our technology uses quantum mechanical effects routinely (like lasers and semiconductor microchips, which were produced by the “first quantum revolution” back in the 20th century). If the current trends hold, we will be soon enough playing with the technological results of the “second quantum revolution”, using even more subtle and bizarre quantum effects. Creation of such devices, which are not restricted to the field of quantum computing or quantum cryptography, requires a new discipline, quantum engineering, the development of which goes hand in hand with the cutting edge research in theoretical and experimental quantum physics. I will give an overview of this discipline, its current status and applications and its promise.

Non-Skoltech attendees should request access to the building in advance by sending their passport details to energy.colloquium@skoltech.ru

Colloquium schedule and information on how to get to the colloquium can be found at <http://www.skoltech.ru/research/en/events/energy-colloquium/>