

Energy Colloquium

Nanophotonics: Keeping up With Moore's Law

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Skolkovo Innovation Center

Technopark, Building 3, Room 403



ABSTRACT:

As humankind becomes a more demanding consumer of digital data every day, devices have to deliver the exponential progress defined by Gordon Moore 50 years ago. It becomes more apparent that, due to fundamental restraints, electronics is in a close reach of a bottleneck. The most widely adopted approach to overcome electronic latencies is to use photons as information carriers. The challenge is, however, to reduce the footprint of photonic devices. Nanophotonics offers a variety of opportunities to create novel architectures and replace some of the electronic components while staying nanoscale. In the talk, an introduction to the basic principles of nanophotonics will be given. We will overview the main achievements in this field of study, and place them in the context of complementing today's electronics with high-speed, compact and efficient nanophotonics devices.

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/en/energy-colloquium/>