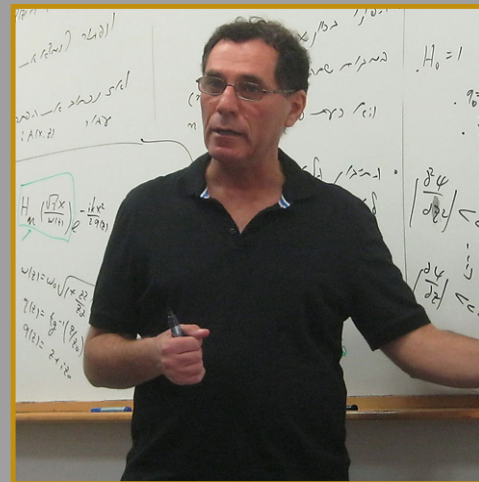


Photonic Time Crystals Seminar

with

Prof. Moti Segev

Neil Armstrong Distinguished Visiting fellow



When: February 21, 11:30 am-12:30 pm EST

Where: Birck Nanotechnology Center, Room 1001

Or join virtually via Zoom:

<https://purdue-edu.zoom.us/j/99247981240>

Photonic Time Crystals (PTCs) are dielectric media whose refractive index is modulated periodically in time at time scales of an optical cycle. These systems conserve momentum but not energy, and are characterized by momentum bands and bandgaps, where the amplitudes of their eigenmodes can increase (or decrease) exponentially. But more interesting than all the rest - Prof. Segev will discuss the classical and quantum features of light emission in PTCs from various radiation sources, such as free electrons, classical dipoles, quantum fluctuations, and the emission by atoms. The latter opens new avenues for making widely tunable lasers that extract energy from the temporal modulation of the medium.

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Mordechai (Moti) Segev is the Robert J. Shillman Distinguished Professor of Physics, at the Technion, Israel. He received his BSc and PhD from the Technion in 1985 and 1990. He joined Princeton as Assistant Professor in 1994 and became Professor in 1999. Then Moti went back to Israel and was appointed as Distinguished Professor in 2009.