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SEMINAR **סמינר**

Nanowire-based quantum dots for quantum optics

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Abstract

Nanowire quantum dots grown using vapour-liquid-sold epitaxy have demonstrated quantum optical properties approaching that of state-of-the-art self-assembled quantum dots. Advantages of the nanowire system is a growth mode that allows for (i) position-control without loss in optical quality, (ii) control of the number of emitters per device and (iii) near-unity yield of high efficiency devices. In this talk, I will cover the growth technique used to produce position-controlled nanowire-based sources of non-classical light and summarize their performance with regard to single photon purity, two-photon interference visibility and fidelity to a maximally entangled Bell state. I will also discuss future directions, including multiplexed single photon sources based on multi-dot nanowires and monolithic integration based on evanescent coupling to SiN waveguides.

ההרצאה תתקיים ביום רביעי, ה-20.3.19 בשעה 12:30
באודיטוריום המכון למצב מוצק, קומת כניסה
The lecture will take place on Wednesday, 20.3.19 at 12:30
at the Solid State Institute auditorium, entrance floor

Host: Professor David Gershoni