Solid State Institute
המכון למצב מוצק

TECHNION
Israel Institute
of Technology

הטכניון
מכון טכנולוגי
לישראל

SPECIAL SEMINAR

סמינר מיוחד

"Some aspects of strong light-matter coupling in carbon and organic structures"

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Abstract

The regime of strong light matter coupling is reached, when the characteristic energy of the interaction between light and material excitations exceeds all characteristic broadenings in the system. It can be realized in planar microcavities, where confined photonic mode resonantly interacts with an exciton, formed in a 2D active layer placed in its antinode. In this case, novel type of hybrid half light- half matter elementary excitations, known as exciton polaritons are formed.

In our talk we will consider theoretically the properties of the polaritons in the systems based on regular arrays of carbon nanotubes or organic materials. Our focus will be on the possibility to reach the regime of exciton brightening and analysis of the microscopic mechanisms of nonlinear optical response in these systems.

ההרצאה תתקיים ביום רביעי, ה-16.9.2020 בשעה 12:00 בזום
The lecture will take place on Wednesday, 16.9.2020 at 12:00
via Zoom https://technion.zoom.us/j/94008122667

Host: Assistant Professor Yoav Sagi