## Technion-Israel Institute of Technology Faculty of Mechanical Engineering



הנך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום די 19.04.17 (כג' בניסן, תשע"ז), בניין דן-קאהן, קומה 0, אודיטוריום 1, 30 :13.

**ירצה**: שי מעייני

**מנחה**: פרופי/ח טל כרמון

על הנושא:

## **Cavity Optocapillaries**

The seminar will be given in English

## להלן תקציר ההרצאה:

Everyone is familiar with water waves, scientifically known as capillary waves. In my research, I design, fabricate, and experimentally demonstrated, for the first time, a hybrid optocapillary device that allows energy exchange between light and capillary waves as well as stimulated amplification in the form of a water wave laser. Our opto-capillary cavity is a million times softer than what the current solid-based technology can provide. Such softness accordingly enhances optically-induced deformation, which can benefit optical cooling of capillary waves. Such a dramatic improvement in cooling might take capillary waves, in the future, toward their quantum ground state, while the system is maintained at room temperature and pressure.

בברכה,

מפופ"א אאוסובסקי מרכז הסמינרים