

הנדך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ה' 16.05.2019
(י"א באייר, תשע"ט), בניין דן קאהן, אודיטוריום 1, 13:45.

מרצה : ראם לוי

מנחה : פרופ'ח טל כרמון

על הנושא :

Million times around a microsphere

The seminar will be given in English

תקציר ההרצאה :

Whispering Gallery Mode was first explained in the 17th century by Lord Lord Rayleigh for sound waves. Today High Q WGM micro-resonators enable to study light and matter interaction in small size. Amplification of 10^8 and more is possible in microns size devices. In 1970 Arthur Ashkin deployed optical force to levitate particles, for his work on optical trapping he received the Nobel Prize in 2018. The study of WGM resonators had to coop with the imperfections of optical device. In the talk I'll present my study were optical trapping is used to levitate a micro-droplet photonic device. The minimal constrains on the drop produce near perfect sphere. I'll discuss the optical setup and the effects induced in a levitating micro droplet, including non-linearities and thermal effects.

The study of such devices can help promote the use of liquid micro resonators for bio sensing and on chip medical devices.

בברכה,

ר' אורי אבנר

מרכז הסמינרים