

סמינר - SEMINAR

הנדך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ב' 6.01.2020
(ט' בטבת תש"פ), בניין דן קאהן, אודיטוריום 1, 14:30.

מרצה:

Dr. Shimon Rubin

Jacobs School of Engineering, Department of Electrical and Computer Engineering
University of California San Diego (UCSD)

על הנושא:

Nonlocal and nonlinear surface plasmon polaritons and plasmon resonance imaging induced by the thermocapillary effect

The seminar will be given in English

להלן תקציר ההרצאה:

Surface optical modes propagate along metal-dielectric and dielectric-dielectric interfaces and allow to concentrate light in a sub-wavelength region.

The high sensitivity of surface optical modes to index changes leads to strong coupling between thin liquid dielectric films topography to surface optical modes, leading to rich light-fluid interaction regimes.

In this talk we will discuss nonlocal and nonlinear interaction between surface optical modes and thin liquid dielectric film induced by the thermocapillary effect, leading to spatial optical solitons, light-induced tunable liquid metasurfaces and tunable lasing. We demonstrate that light-induced thermocapillary flows can form and translate droplets and create indentation patterns on demand in thin liquid dielectric films of subwavelength thickness and that plasmonic microscopy can image these fluid dynamical processes with a subnanometer sensitivity along the vertical direction.

מארח: פרופ' אולג גנדלמן

בברכה,

פרופ' א"א אתי סאס
מרכז הסמינרים