

## סמינריון

הנדך מוזמנות להרצאה סמינריונית של הפקולטה להנדסת מכונות שתתקיים ביום ד' 19.02.2020  
(כ"ד בשבט, תש"פ), בניין דן קאהן, אודיטוריום 1, 13:30.

מרצה: אסנת דורון-רחין

מנחה: פרופ'ח שלי צליל

על הנושא:

### **The effect of unfolding kinetics of bi-stable domains on the propagation of mechanical signals in biomaterials**

The seminar will be given in Hebrew

תקציר ההרצאה:

Recent experiments demonstrate that cells can communicate mechanically through the extracellular matrix (ECM) by responding to mechanical deformations generated by their neighbors. The native ECM often contains folded protein domains that can reversibly unfold with response to force.

To study the effect of unfolding kinetics on the propagation of mechanical signals in biomaterials, we designed biomaterials, which consist of a repetitive array of bi-stable domains, that can reversibly unfold with response to force.

We found that the amplitude and shape of the propagated signal is changing in a frequency-dependent manner and that the crossover frequency between different regimes of mechanical behavior of the material is determined by the structural stability of the domains.

בברכה,

ד"ר איתי סאס  
מרכז הסמינרים