



סמינר - SEMINAR

הנדך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ד' 7.10.15
(כד' בתשרי, תשע"ו), בבניין דן-קאהן, קומה 0, באודיטוריום 1 בשעה 14:30.

ירצה:

ד"ר ליאור פלח

על הנושא:

Application of Geometric Measure Theory in Continuum Mechanics

להלן תקציר ההרצאה:

We believe that the framework of Geometric measure theory may enable a generalized formulation of rational continuum mechanics. In this seminar we outline two such generalizations to classical concepts in continuum mechanics in the setting of an r -dimensional Euclidean space. The first, existence and characterization of Cauchy stresses in rough bodies, that is, bodies characterized by sets whose measure theoretic boundaries may be as irregular as flat r -chains. A version of Cauchy's postulates coupled with Wolfe's representation theorem implies that the Cauchy stress is represented by flat forms. The second, a generalized transport theorem for convecting irregular r -dimensional domains. The resulting theorem presents a compact and elegant version free from the existence of the exterior normal and the mean curvature normal which holds for all r . A key feature in both generalizations is the strong Lipschitz character for the configurations space and subsequence motion.

The work presented here is a joined work with Prof. Reuven Segev.

Bio

Dr. Lior Falach graduated at the department of mechanical engineering, Ben-Gurion University (B.Sc. Summa cum Laude, 2007; M.S.c. Magna cum Laude, 2008; Ph.D., 2013) under the guidance of Prof. Reuven Segev, and recently completed a postdoctoral research at Sassary University under the guidance of Prof. Roberto Paroni. Dr. Falach's Research interests include limit analysis, lower dimensional theories in structural mechanics, and the mathematical theory of continuum mechanics.

בברכה,

המארח: פרופ"מ גל שמואל

פד' 101/11 אמיף אלת

מרכז הסמינרים