מכון טכנולוגי לישראל-הטכניון הפקולטה להנדסת מכונות



TECHNION – Israel Institute of Technology Faculty of Mechanical Engineering

Biomechanics Seminar - סמינר בביומכניקה

15.07.13 הינך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום בי 15.07.13 (חי באב, תשעייג), בשעה 14:30 בחדר 14:30 בבניין ליידי דייויס.

: ירצה

Prof. Darren Crowdy
Imperial College London, UK

Imperial College London, UK d.crowdy@imperial.ac.uk

על הנושא:

Low-Reynolds-number swimming in confined geometries

להלן תקציר ההרצאה:

There is much current interest in understanding the dynamics of small bio-logical organisms such as bacteria and spermatozoa, as well as nano-particles and nano-robots in nanotechnology, operating in the low-Reynolds-number regime in confined geometries (for example, near no-slip walls and free surfaces). The sheer variety of both biological micro-organisms and man-made nano-particles together with the geometrical complexities of the environments in which they exist presents significant modelling challenges and there is a need to identify basic paradigms.

This talk will offer some simple modelling ideas that give some useful insights into confined low-Reynolds-number swimmer/particle dynamics.

Biographical sketch: Darren Crowdy is a Professor of Applied Mathematics in the Department of Mathematics at Imperial College London. He obtained a PhD in applied mathematics from Caltech in 1998 followed by a 2-year Instructorship in Applied Mathematics at MIT. Between 2006-2011 he was an Advanced Research Fellow of the Engineering and Physical Sciences Research Council in the UK and he has held Visiting Professorship positions at MIT, Caltech and UC San Diego.

בברכה,

<u>המארח</u> : פרופי/מ יזהר אור : פרופי/מ יזהר אור : פרופי/מ יזהר אור

מרכז הסמינרים ^{*}