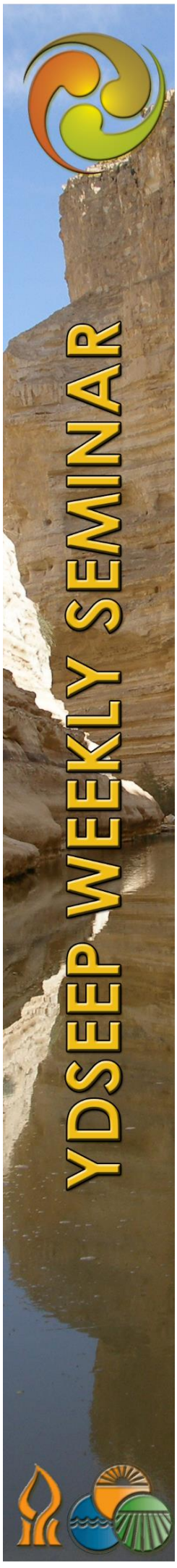

Ben-Gurion University of the Negev
Blaustein Institutes for Desert Research
The Swiss Institute for Dryland Environmental and Energy Research
Alexandre Yersin Department of Solar Energy and Environmental Physics

Title:
There is plenty of room at the bottom

Speaker:
Dr. Abraham (Avi) Marmur
Chemical engineering department
Technion – Israel Institute of Technology, Haifa, Israel

Abstract:
This lecture discusses new insights concerning phenomena in Nano-systems that have been either only partially understood for a long time or not recognized at all. Example of such systems to be discussed include the interfacial region between a liquid and a fluid, nano-particles nucleation during phase change, and nano-roughness-induced non-wettablity. The lecture will show how relatively simple theories may still give much insight into complex phenomena.

References

Non-wettable Surfaces: Theory, Preparation and Applications
R Ras, A Marmur; Royal Society of Chemistry (2016)

Non-Wetting Fundamentals
A Marmur; Non-wettable Surfaces, 1-11 (2016)

Surface tension and adsorption without a dividing surface
A Marmur; Langmuir 31 (46), 12653-12657 (2015)

Vapor–liquid nucleation: the solid touch
M Yarom, A Marmur; Advances in colloid and interface science 222, 743-754 (2015)

Condensation Enhancement by Surface Porosity: Three-Stage Mechanism
M Yarom, A Marmur; Langmuir 31 (32), 8852-8855 (2015)

From hygrophilic to superhygrophobic: theoretical conditions for making high-contact-angle surfaces from low-contact-angle materials A Marmur; Langmuir 24 (14), 7573-7579 (2008)

Wetting on hydrophobic rough surfaces: to be heterogeneous or not to be?
A Marmur; Langmuir 19 (20), 8343-8348 (2003)

Date & Location:
Tuesday, November 28, 2017, 11:00
Lecture room, Physics Building (ground floor)