



Solid State Institute
המכון למצב מוצק

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סמינר

Laser Weapon Systems- Science Fiction Materializing

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Abstract

Laser technology has advanced rapidly from the invention of the laser in the 1960's to the Mega-Watt lasers of the late 1980's. Alongside the rapid technology development comes an expectation for laser weapon systems which have long been a part of science fiction literature. Nevertheless, the latter have yet to be fielded, coining the popular joke that *high power laser weapons have been three years away from us, for three decades*. Over the last few years, the technology has matured and the operational need for this innovative and game-changing defense system has increased making their entrance to the battlefield imminent.

This Seminar describes how these systems work and focuses on the technological breakthroughs that finally allows their realization- fiber laser power scaling via beam combining, beam focusing and pointing and real-time atmospheric turbulence disturbance correction.



Yehonathan Segev has been the head of the R&D group that specializes in Laser Systems in Rafael Advanced Defense Systems LTD since 2020. He is with the group in Rafael since 2011, after receiving a PhD from the Weizmann Institute of Science. segevy@rafael.co.il

ההרצאה תתקיים ביום רביעי, ה-1.12.21 בשעה 12:30

באוניברסיטת המכון למצב מוצק, קומת כניסה

The lecture will take place on Wednesday, **1.12.21** at **12:30**
at the Solid State Institute auditorium, entrance floor

Host: Professor Gadi Eisenstein