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In the past decade, nano-optics and ultrafast physics, two rapidly evolving research fields of modern physics, have revolutionized the science of light-matter interaction, allowing the exploration of phenomena in higher spatial and temporal resolution than ever before. My previous and current research has focused on these rapidly evolving areas of research, aiming to explore ultrafast phenomena at the nanoscale, by merging extreme spatial and temporal resolution capabilities across the visible-infrared optical regimes.

My research focus is in exploring ultrafast dynamics in condensed matter physics, plasmonic nanostructures, Silicon Photonics and 2D materials. We also perform research in quantum coherent control of atoms and molecules with ultra-short laser pulses, and analogous schemes in nonlinear optics. Recently, we have initiated new research directions in merging Deep-learning and nanophotonics, as well as mid-infrared imaging via nonlinear optical upconversion.

I have performed my postdoctoral research at University of California, Berkeley (2014), and my PhD at the Weizmann Institute of Science under the supervision of Prof. Yaron Silberberg (2011). I hold a B.A. in Physics and a B.Sc. in Electrical Engineering in the Dual Physics-Engineering program of Tel Aviv University (2004), and a M.Sc in Physics from the Weizmann Institute of Science (2006).

Up to date, I have published 40 articles and 10 patents. I am the recipient of the Azrieli PhD Scholarship for the years 2007-2010, the postdoctoral Fulbright fellowship for 2011-2012, the Alon young scientist scholarship for 2014, and awarded the ERC-StG grant for the project "MIRAGE 20-15", which aims to retrieve ultrafast dynamics with sub-wavelength spatial resolution across the infrared optical regime.

I am married to Orit, and a father to Ariel, Evyatar and Avigail.