

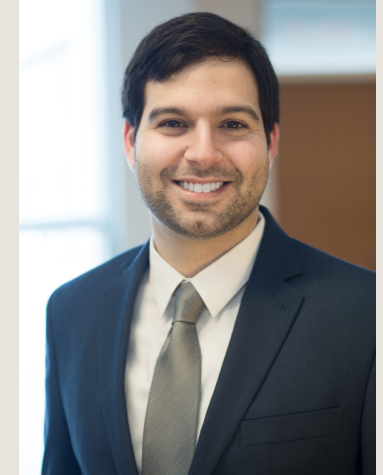
MQ Photonics Research Centre Webinars

When: Wednesday 17 June 2020 at 2 PM

Via Zoom: Zoom invitation Join from a PC, Mac, iPad, iPhone or Android device: Please click this URL to start or join:

<https://macquarie.zoom.us/j/638365482> Join from dial-in phone line:

Dial: +61 2 8015 2088 Meeting ID: 638 365 482



Speaker: *Dr Orad Reshef*

Title: Nonlinear plasmonic metasurfaces using multiresonant surface lattice resonances

Abstract: Resonant metasurfaces are devices composed of nanostructured subwavelength scatterers that support narrow optical resonances, enabling applications in filtering, nonlinear optics, and molecular fingerprinting. In this webinar, we will focus on resonant plasmonic metasurfaces based on surface lattice resonances, and our work towards obtaining strong metasurface-based optical nonlinearities. When arranged in a periodic lattice, individual plasmonic nanoparticle resonances combine to form collective oscillations with very high Q-factors. The combination of the strong nonlinearity of the metal with these high Q-factors makes periodic gold nanoparticle arrays into promising candidates for efficient nonlinear interactions over ultra-short propagation lengths.

Bio: *Dr. Orad Reshef is a Banting postdoctoral fellow working with Prof Bob Boyd in the CERC group at the University of Ottawa. He is a co-founder of the Photonics Online Meetup, the world's first all-online photonics conference. See also <http://reshef.ca> and <http://boydnlo.ca>.*