Mie-tronics and Metaphotonics

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Abstract— Recently emerged field of Mie-resonant metaphotonics (also called "Mie-tronics") employs resonances in high-index dielectric nanoparticles and dielectric metasurfaces aiming for novel applications of the subwavelength optics and photonics. This talk will highlight recent advances in Mie-tronics and its applications in metaphotonics and metasurfaces.

Yuri Kivshar received PhD degree in 1984 in Kharkov (Ukraine). After taking some positions in the US and Europe, he moved to Australia where he established Nonlinear Physics Center at the Australian National University. He is Fellow of the Australian Academy of Science since 2002, and also Fellow of Optica (former OSA), APS, SPIE, and IOP. He received many recognitions for his research including more recently 2022 Max Born Award (Optica).

