Manipulating Circularly Polarized Optical Radiation with Functional Metasurfaces

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Abstract

Metasurfaces have the potential to emerge as essential components for classical and nonclassical optical fields. In this talk, I will first present two examples on how to use metasurfaces to design quarter-wave plates that can not only allow broadband circular-to-linear polarization conversion but also generate vector vortex beams or function as a versatile beam splitter. After that, I will talk about a conceptually new approach to the room-temperature generation of circularly polarized, well-collimated single photons.

References

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