



## Shulin Sun

Fudan University, China

### High-Efficiency and multifunctional controls of lights with gradient metasurfaces

#### Abstract:

Manipulating light in the desired manner is highly desired in photonics research. Recently, gradient metasurfaces, consisting of carefully designed inhomogeneous microstructures with carefully tailored optical responses, were found to exhibit strong abilities to control light propagations, leading to amazing physical effects such as anomalous refraction/reflection, surface plasmon coupling, flat meta-lens, meta-hologram, special beam generations. In this talk, we will introduce our recent progresses along this direction, and in particular the concepts and applications for realizing the high-efficiency and multi-functional controls of the lights in far-field and near-field regimes.

#### Biography

**Shulin Sun** has completed his PhD from Fudan University and Postdoctor from National Taiwan University. He is currently a full professor and associate dean of the Department of Optical Science and Engineering at Fudan University. He has published more than 80 papers in international journals in international journals, including Nature Materials, Nano Letters, Advances in Optics and Photonics, Light: Science and Applications, which are totally cited over 9100 times so far. Thirteen papers are elected as ESI highly cited paper. He won the Second Prize of National Natural Science Award in 2019, the Rising Star of Light in 2020, the Highly Cited Chinese Researchers in 2020, 2021, 2022.