

Metasurface Sorting of Orbital Angular Momentum Modes

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Abstract: Orbital angular momentum modes of light offer excellent prospects for increased bandwidth for spatial division multiplexing for communications with minimal cross talk. Here we discuss the application of metasurfaces to analyse orbital angular momentum modes in free space.

Biography: Judith Dawes is Professor of Physics and Director of MQ Photonics Research Centre at Macquarie University. She serves as Director at Large for Optica, and previously served as Treasurer of Science and Technology Australia and President of ANZOS. She is a Fellow of Optica, SPIE, and the Royal Society of NSW. Judith researches light interactions at the nanoscale for applications in communications and sensing. Her research achievements include the invention of a new nonlinear-optical laser material, Yb:YAB, and the invention of a laser-cured protein solder for microsurgery.

