



## About the cover: *Advanced Photonics* Volume 3, Issue 2

The image on the cover for *Advanced Photonics* Volume 3 Issue 2 illustrates the concept of wavefront-selective Fano resonances supported by optical metasurfaces. The image depicts three identical metasurfaces, each illuminated by a localized source producing a diverging vortex beam originating at a different distance. The metasurface in the foreground shows reflection of a single color (orange), indicating that the surface interacts only with this wavelength and specific wavefront; in this case, the reflected beam is a phase-conjugated version of the source (a converging vortex beam). The other scenarios simply transmit,

with no distortion in either the wavefront or the spectrum. These Fano metasurfaces are both spatially and spectrally selective, resonantly reflecting only specifically tailored waves.

The image is based on original research by Adam Overvig and Andrea Alù, presented in their paper “Wavefront-selective Fano resonant metasurfaces,” *Adv. Photon.* **3**(2), 026002 (2021). The results presented in this work expand both the concept and applicability of optical Fano resonances, with implications for augmented reality, nonlinear and quantum optics, and novel optical sources.