

All-angle Scanning and Multifunctional Metasurfaces

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Abstract— We will briefly discuss recent research on antenna arrays and metasurfaces that can be configured for various functionalities by changing bulk components (variable capacitors, for example) in its meta-atoms. In particular, we will show possibilities to realize theoretically perfect all-angle scanning reflectors, leaky-wave antennas, and absorbers. Importantly, all these solutions can exhibit superdirective properties at all scan angles.

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