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Title:Coherent detector arrays for terahertz astrophysics applications

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Abstract:This paper reviews the key technologies, challenges, and solutions related to the construction of coherent detector arrays in the terahertz waveband for astrophysics applications. We review fundamental performance limits and design constraints for arrays of coherent detectors, review several coherent array systems fielded to date, discuss the design and construction of next-generation systems, and review future prospects for advancements in coherent array technology.

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