

# Developments for imaging with future amplitude and intensity interferometers.

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Optical long-baseline (amplitude) interferometry using only a few apertures has enabled the reconstruction of stellar images at the milliarcsecond scale. Significant improvements will be made through the construction of new interferometric arrays containing tens to hundreds of apertures as well as through the implementation of new image reconstruction techniques. I will discuss our ongoing efforts to construct a new type of interferometer, known as the Hypertelescope, as well as studies of the feasibility of obtaining direct phased images. Additionally, I will discuss other possibilities that exploit higher orders of light coherence, namely intensity interferometry, and how this technique will see a revival due to the construction of large arrays of telescopes, primarily intended for gamma-ray astronomy. Finally, I will discuss a few strategies for reconstructing images from sparse Fourier data which involve phase retrieval techniques as well as more classic image deconvolution algorithms.