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Experimental steps towards a digital revival of Stellar Intensity Interferometry NOLAN MATTHEWS, DAVID KIEDA, STEPHAN LEBOHEC, UDARA ABEYSEKARA, University of Utah — Over the last decade there has been a growing interest in using Stellar intensity interferometry (sii) for high-resolution imaging of hot stars in the optical and uv. In contrast to standard amplitude interferometry, the sii technique is unaffected by atmospheric turbulence allowing for extremely large baselines (>100m) and angular resolution scales down to tens of micro-arcseconds. The technique can be applied to existing and planned observatories which employ imaging air cherenkov telescopes (iacts) due to the similar requirements of large light collection areas and nano-second time resolution capabilities. The university of utah operates the starbase-utah observatory, located in grantsville, ut, consisting of dual three meter diameter telescopes serving as a testbed for sii instrumentation. I will summarize the sii technique and highlight the motivation for using sii. I will also present laboratory results in the reconstruction of artificial sources using pseudo-thermal light and the development of starbase-utah.

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