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Progress and Science with the Magdalena Ridge Observatory Interferometer

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The Magdalena Ridge Observatory Interferometer (MROI) is the most ambitious optical interferometer project in the world today (Creech-Eakman et al. 2012, SPIE). First funded in 2000, the project has gained significant momentum in the last few years, and is working closely with our collaborators from the University of Cambridge. We have completed the design, prototyped and tested most subsystems, begun installation of major infrastructure on the Ridge, and have a plan to complete and install four telescopes in four years. When completed, MROI will include 10 movable telescopes operating over 7.5 to 340m baselines and wavelengths (0.6-2.4 microns) which will allow astronomers to produce sub-milliarcsecond images of a large variety of astrophysical targets. I will present our completed design and give an overview of recent progress, our timeline to first light and some of the technical and scientific milestones anticipated as we enter our commissioning phase. First fringes are expected for MROI in approximately 2 years.