

DEVELOPING A WIDE-FIELD NEAR-INFRARED SETI PROGRAM J. Maire¹, S. A. Wright^{1,2}, F. Drake³, A. Duenas², G. W. Marcy⁴, J. Ramos², A. Siemion^{4,5}, R. P. S. Stone⁶, M. Tallis², R. R. Treffers⁷, D. Werthimer^{4,5},
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Abstract: Our team has initiated the first near-infrared SETI (Search for Extraterrestrial Intelligence) instrument and survey to search for fast (1GHz) pulsed infrared (850 - 1700 nm). The Near-Infrared Optical SETI (NIROSETI) instrument was commissioned in early 2015 at Lick Observatory, and since has been conducting a targeted SETI search of 1,300 galactic and extragalactic sources. We will describe the instrument design and concept, with a particular focus on advanced data reduction and analysis methods. We will also present our initial results obtained after 2 years of operations. Our team is developing a natural extension from our targeted near-infrared pulsed SETI work to a larger field of view “all-sky” near-infrared program. We will present a conceptual design for a new SETI Wide-field Infrared Surveyor (SWIS) instrument that could be capable of conducting the first near-infrared pulsed SETI search over the entire Northern hemisphere.