38th SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (A4.)

SETI I: SETI Science and Technology (1.)

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SPECTROSCOPIC OPTICAL SETI AT LICK OBSERVATORY

Abstract

We present initial results from a new SETI program using the Hamilton high-resolution spectrometer on the Lick 3-meter telescope at Lick Observatory. Our search targets continuous laser emission lines in the optical spectrum from technological civilizations. Such laser lines are distinctive from both astrophysical sources and from extended and sky sources as they are not broadened by the usual astrophysical broadening mechanisms (and indeed are monochromatic) and arise from a point source. Our targets have included nearby stars, binary stars, globular clusters, and galaxies.