

First Results from the Gemini Deep Deep Survey

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Abstract Over the course of the last 18 months the Gemini Deep Deep Survey (GDDS) team has proposed, developed, and commissioned a Nod & Shuffle mode for the Gemini GMOS spectrograph in order to undertake the deepest redshift survey ever undertaken. The GDDS spectra are based on an infrared-selected sample, target the so-called "redshift desert" between $1 < z < 2$, and are deep enough ($> 30h$ exposures/field) that we are able to obtain redshifts and measure diagnostic indices for purely quiescent (no emission features whatsoever) L^* galaxies out to $z=1.8$. The central goal of the GDDS is direct measurement of the evolving baryonic mass function over the peak epoch of galaxy assembly. On behalf of the GDDS team, I will describe the underlying design of the survey and present some early results on the evolving mass function and ages of galaxies at $1 < z < 2$.