

SECOND GENERATION INSTRUMENTS FOR DKIST. T. Rimmele¹, F. Woeger¹, A. Fehlmann¹, S. Jaeggli¹, T. Schad¹, T. Anan¹, D. Schmidt¹, H. Lin², J. Kuhn², R. Casini³, A. DeWijn³, M. Sigwarth⁴, T. Kentischer⁴, ¹National Solar Observatory (3665 Discovery Dr #3rd, Boulder, CO 80303, rimmele@nso.edu), ²Institute for Astronomy (University Hawai'i, 34 Ohi Aku St., Pukalani, HI), ³High Altitude Observatory (3080 Center Green Dr, Boulder, CO 80301), ⁴Leibnitz Institute for Solar Physics (Schöneckstraße 6, 79104 Freiburg im Breisgau, Germany).

Introduction: The National Science Foundation's Daniel K. Inouye Solar Telescope (DKIST) [1] has begun its operations commissioning phase. Science observations based on community proposal will be in progress during the time of this workshop. The unique capabilities of the initial suite of instruments currently available to the community will be briefly reviewed. Several upgrades, which will provide additional, and enhanced capabilities are in progress and will be implemented over the next 2-4 years. These include, the integration of the dual-etalon Visible Tunable Filter, the integration of Ground-layer and Multi-Conjugate Adaptive Optics, replacement of sensors of the infrared instrumentation with larger format and enhanced performance detectors, the addition of image slicers that will significantly enhance the efficiency of the DL-NIRSP instrument, and continued improvements to polarimetry systems. We will solicit input concerning missing capabilities and discuss preliminary ideas and concepts for second generation instrumentation for the DKIST.



References: [1] Rimmele et al. (2021) Solar Physics, Volume 295, Issue 12