

Title: Science with the All-Sky Automated Survey for Supernovae (ASAS-SN)

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Abstract: The All-Sky Automated Survey for Supernovae (ASAS-SN; <http://www.astronomy.ohio-state.edu/~assassin/index.shtml>) has been imaging the whole sky in the optical (V-band) down to $V \sim 17$ mag every ~ 2 days from Haleakala (Hawaii) and CTIO (Chile) since May 2014 using small telescopes (14 cm aperture) with wide fields of view. As of early June 2015, ASAS-SN has found more than 160 bright and nearby supernovae (see an updated list here: http://www.astronomy.ohio-state.edu/~assassin/sn_list.html), two of the closest tidal disruption event candidates (e.g., Holoien et al. 2014, MNRAS, 445, 3263), a rare nearby AGN in outburst (Shappee et al. 2014, ApJ, 788, 48), more than 200 cataclysmic variables in outburst (see <http://cv.asassn.astronomy.ohio-state.edu/>), and many other interesting optical transient events. A complete, updated list of all the transient events in ASAS-SN can be found here: <http://www.astronomy.ohio-state.edu/~assassin/transients.html>. The project is already the most successful survey for bright and nearby supernovae, finding more than 50% of the world's supply. The China-CONICYT postdoctoral fellow will work closely with professors Subo Dong (Kavli Peking University) and Jose L. Prieto (UDP), members of the ASAS-SN collaboration, on the day-to-day organization of follow-up of transient candidates (mainly supernovae) and will lead papers on transients science (particularly supernovae). The fellow will have access to all the ASAS-SN survey and follow-up data, in addition to access to the 10% telescope time while working in Chile.