

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  $\sim 2$  days from Haleakala (Hawaii) and CTIO (Chile) since May 2014 using small telescopes (14 cm aperture) with wide fields of view. As of late October 2016, ASAS-SN has found more than 380 bright and nearby supernovae (see an updated list here: [http://www.astronomy.ohio-state.edu/~assassin/sn\\_list.html](http://www.astronomy.ohio-state.edu/~assassin/sn_list.html)), 3 of the closest and best studied tidal disruption events, more than 1000 cataclysmic variables in outburst (see <http://cv.asassn.astronomy.ohio-state.edu/>), and many other interesting optical transient events, including AGNs in outburst, novae, and young stars in outburst. 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 transients, finding more than 50% of the world's supply of supernova explosions, and we plan to expand it starting in 2017 (thanks to a China-Chile CASSACA grant) to a faster cadence. The China-CONICYT postdoctoral fellow will work closely with professors Subo Dong (KIAA - Peking University) and Jose L. Prieto (UDP), members of the ASAS-SN scientific collaboration, on scientific exploration of the ASAS-SN survey discoveries. 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.