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Abstract for an Invited Paper for the NWS12 Meeting of the American Physical Society

## Minerva: Big Exoplanet Science from Small Telescopes NATE MCCRADY, University of Montana

The Kepler mission has identified over 2300 candidate planets in the past two years, adding to the over 500 confirmed exoplanets from radial velocity (RV) surveys. One of the most striking results of these surveys is that the number of planets increases rapidly with decreasing size. There may in fact be more Earth-like planets in the Galaxy than stars. There must be terrestrial planets around nearby stars, though few have yet been discovered. Finding these planets requires high precision RV observations and high cadence transit observing to densely sample the orbital phase. Minerva will surmount these obstacles with a dedicated observatory for detection of super-Earths and close-in Earth-like planets. Our array of four 0.7-m telescopes will operate in two modes: jointly with a high precision fiber-fed spectrometer capable of detecting the RV signal of an Earth orbiting a low mass star, and independently for photometric transit detection surveys.