@INPROCEEDINGS{2025AAS...24535711K,
       author = {{Knowlton}, Peter and {Hyden}, Jacob and {Speckert}, Meghan and {Prato}, Lisa and {Kutra}, Taylor and {Tang}, Shih-Yun and {Johns-Krull}, Christopher and {Rebull}, Luisa},
        title = "{Young Stellar Inclinations Derived from Photometric and Spectroscopic Data}",
    booktitle = {American Astronomical Society Meeting Abstracts \#245},
         year = 2025,
       series = {American Astronomical Society Meeting Abstracts},
       volume = {245},
        month = jan,
          eid = {357.11},
        pages = {357.11},
     abstract = "{Understanding the inclinations of stellar spin axes is fundamental for
        studying planet formation and young binary star evolution. Obliquities between exoplanet orbits and their host stars can be traced to the misalignment of circumstellar disks and stellar rotation. In both single and binary systems, these misalignments can impact disk lifetimes and hinder the formation of planets altogether. Our goal is to derive the inclinations for single and binary systems in the Taurus star-forming region using a unique method that relies on estimates of stellar radii. We first identify rotation periods from TESS and K2 light curves for over a hundred sources. In order to test that these periods reflect the stellar rotation of CTTSs, we model the impact of accretion and other activity on our ability to extract the underlying sinusoidal signal we expect from rotation. We combine these data with projected stellar rotation velocities and effective temperatures derived by fitting a synthetic model grid to IGRINS spectra of our sources. Alongside all of these parameters, we use stellar ages and evolutionary track models from the literature to determine inclination. We present the details of this novel approach and the results from our derived distribution of stellar inclinations.}",
      adsurl = {https://ui.adsabs.harvard.edu/abs/2025AAS...24535711K},
     adsnote = {Provided by the SAO/NASA Astrophysics Data System}
}