

[Head of Search Committee]  
[Department of Committee]  
[University of Hiring Committee]  
[Address of Department]

Dear [Head of Search Committee],

Please find my enclosed application for the Tenure-Track Assistant Professor position at the University of [School] in the [Department Name]. I was delighted to hear about this position because...[insert why you want to work there]...

I am excited about the prospect of joining the [School] faculty because I believe the Department produces exceptional, innovative, and creative natural science research. The next decade of advancement in astronomy will likely be driven by a combination of big data ventures, large scale survey follow-up, adaptable instrumentation, and collaborative multi-wavelength science. I am uniquely suited to help [School] navigate this evolving research landscape because of my successful track record at the intersection of astronomical instrumentation, science management, applied science, and interdisciplinary research.

For example, the more than 400 million light curves I produced from *TESS* full frame images have already led to dozens of independent community publications. Similarly, I was one of two developers for the *TESS* Input Catalog which is used by the *TESS* mission for target selection and is the first all-sky catalog to provide stellar parameters for more than one billion stars. Additionally, I led the technical effort to execute a 1,500 hour expansion of the APOGEE-2N survey which is the reason why the survey was able to achieve its science goals by the end of SDSS-IV. Finally, I have recently deployed an innovative ground-based instrument which is capable of detecting exoplanet atmospheres at a fraction of the cost of similar space-based instruments (\$20/hr vs \$50k+/hr).

Furthermore, my non-traditional career pathway allows me an “outside-of-the-box” perspective on how to be a successful scientist. I held a position in industry from 2019 - 2021 because I felt it was necessary to pivot to a results-driven setting in order to capitalize on the knowledge available within the growing field of data science. My industry experience gives me valuable insight for how the future generation of physics and astronomy students will need to focus their studies to be successful. This is increasingly important as more students majoring in physics prioritize careers outside of academia.

I believe my expertise with massive, archival, time-series data sets synergizes well with the current variability research interests of the department and my exoplanet and stellar evolution research will diversify the research topics within the astronomy group. I am especially interested in continuing my journey at [School] because it will allow me to continue my time series astronomical research across multiple Texas universities in order to create a large data driven collaboration in the era of *TESS* and LSST.

I look forward to an opportunity to work within the [Department] at [School] and I thank you in advance for considering my application.

Sincerely,

[picture of your signature]

Ryan J. Oelkers | PhD

Assistant Research Scientist | Texas A&M University

Visiting Researcher | University of Texas, Rio Grande Valley

Cell: (267) 261-9337 | Email: [ryanjamesoelkers@gmail.com](mailto:ryanjamesoelkers@gmail.com) | Website: <https://sites.google.com/site/rjoelkersresearch/>