The WISE-GaiaPerspective on Massive Stars: Classifying IR Variability Across the Upper HR Diagram

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ABSTRACT

Massive Stars are really cool! Gaia can help us find them. Optical + IR diagnostics are useful for classifying them. WISE gives us awesome variability stuff. We can do some machine learning.

Keywords: stars: massive

- 1. INTRODUCTION
- 2. SAMPLE SELECTION
- 3. LIGHTCURVE ANALYSIS & FEATURE EXTRACTION
 - 4. RESULTS
 - $4.1.\ Photometric\ Diagnostics$
- 4.1.1. Distinguishing Between RSGs and AGBs
 - 4.2. Variability
 4.2.1. Raw Feature Results

4.2.2. Machine Learning

5. DISCUSSION

6. SUMMARY & CONCLUSION

This work made use of the following software:

Update this

Software: Astropy v2.0.3 (Astropy Collaboration et al. 2013; The Astropy Collaboration et al. 2018), FATS, Matplotlib v2.1.2 (Hunter 2007), makecite (Price-Whelan et al. 2018), NumPy v1.14.1 (Van Der Walt et al. 2011), Python 3.5.1

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 $\mathbf{doi:}\ 10.1051/0004\text{-}6361/201322068$

Hunter, J. D. 2007, Computing In Science & Engineering, 9, 90

Price-Whelan, A., Mechev, A., & jumeroag. 2018, adrn/makecite: v0.1, doi: 10.5281/zenodo.1343295. https://doi.org/10.5281/zenodo.1343295

https://arxiv.org/abs/1102.1523

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The Astropy Collaboration, Price-Whelan, A. M., Sipőcz, B. M., et al. 2018, ArXiv e-prints.

https://arxiv.org/abs/1801.02634

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