

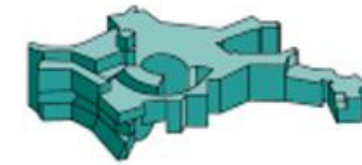


# Classifying K2/TESS Legacy Targets as mmag-Level Benchmark Stars

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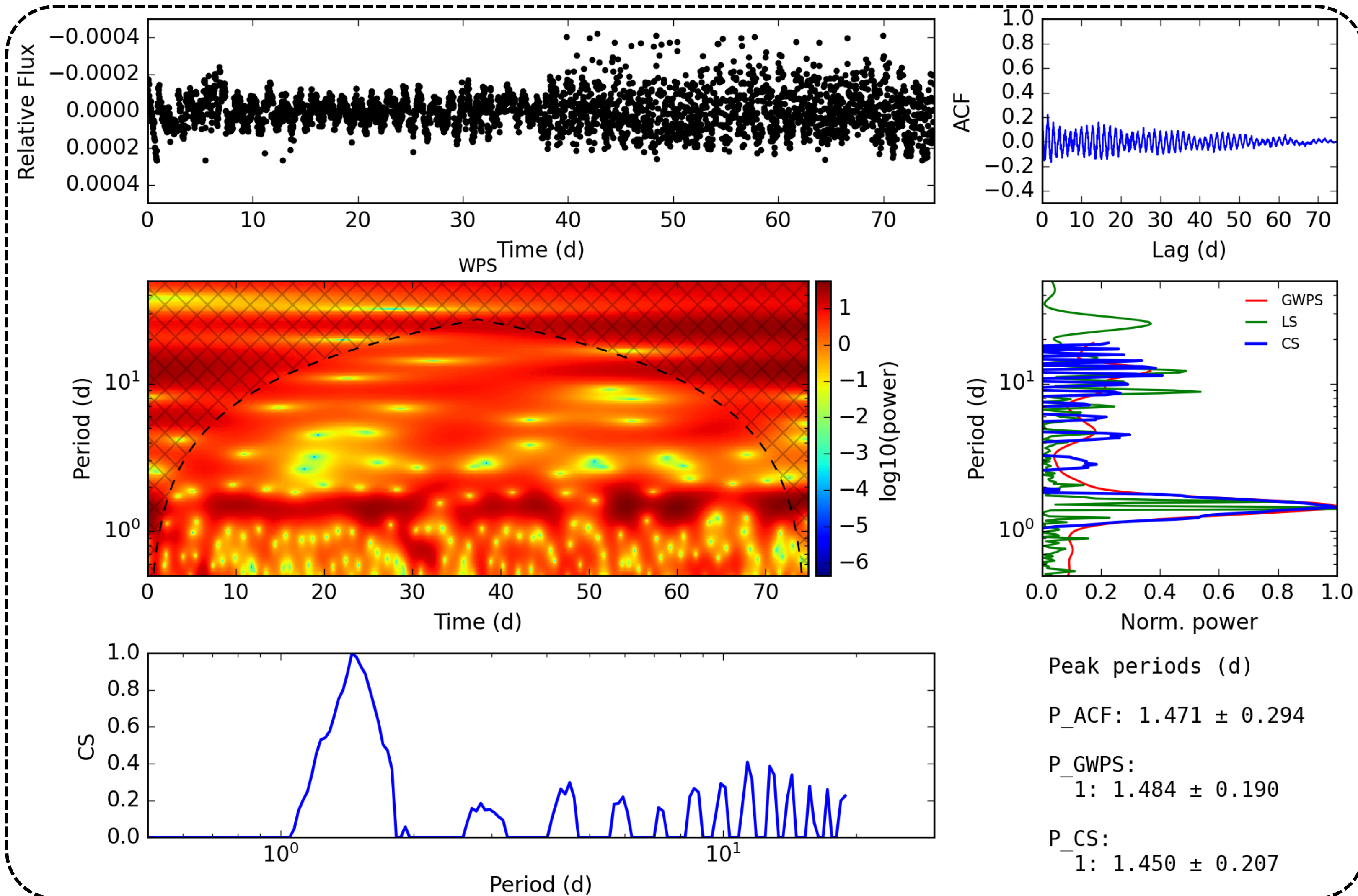
Max Planck Partnership Group  
with Kyambogo University



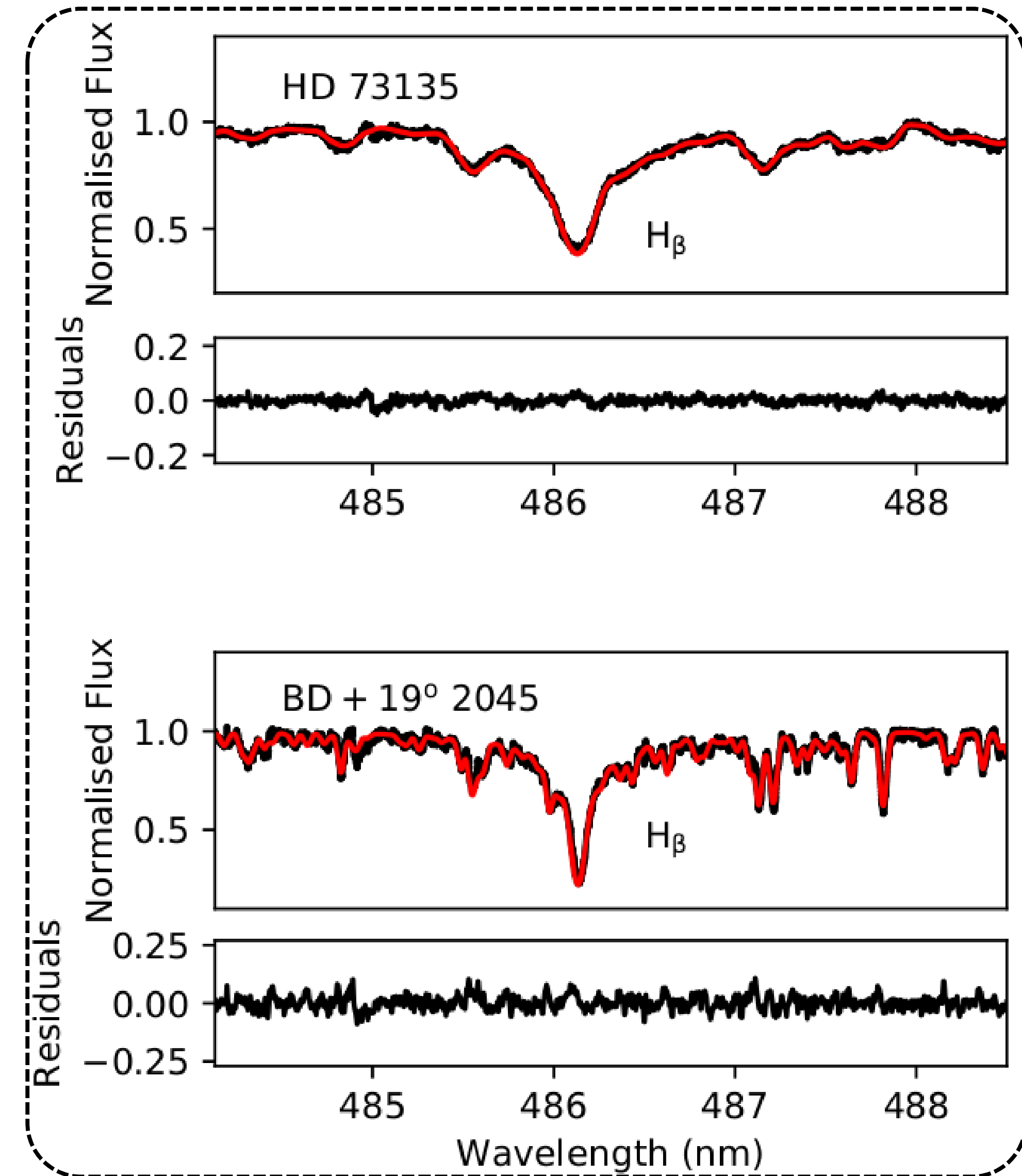
## Abstract

- K2 and TESS reveal variability: possibly rotation in HD 73135 and g-modes in BD+19°2045; the other two stars (BD+19°2046 and TYC 1395-855-1) show unclear low-frequency signals.
- HERMES data classify HD 73135 as Am, BD +19° 2045 as F8 V, and the remaining stars as K1–K2 sub-giants.

## Results: period diagnostics



## Results: spectra



## Conclusions

- A uniform K2/TESS+HERMES study creates reliable mmag-variability benchmarks.
- RVs and HD 73135 spectropolarimetry to confirm rotation, test binarity, and resolve low-frequency signals.

- Joshi S., et al., 2022, MNRAS, 510, 5854
- Trust O., et al., 2021, MNRAS, 504, 5528