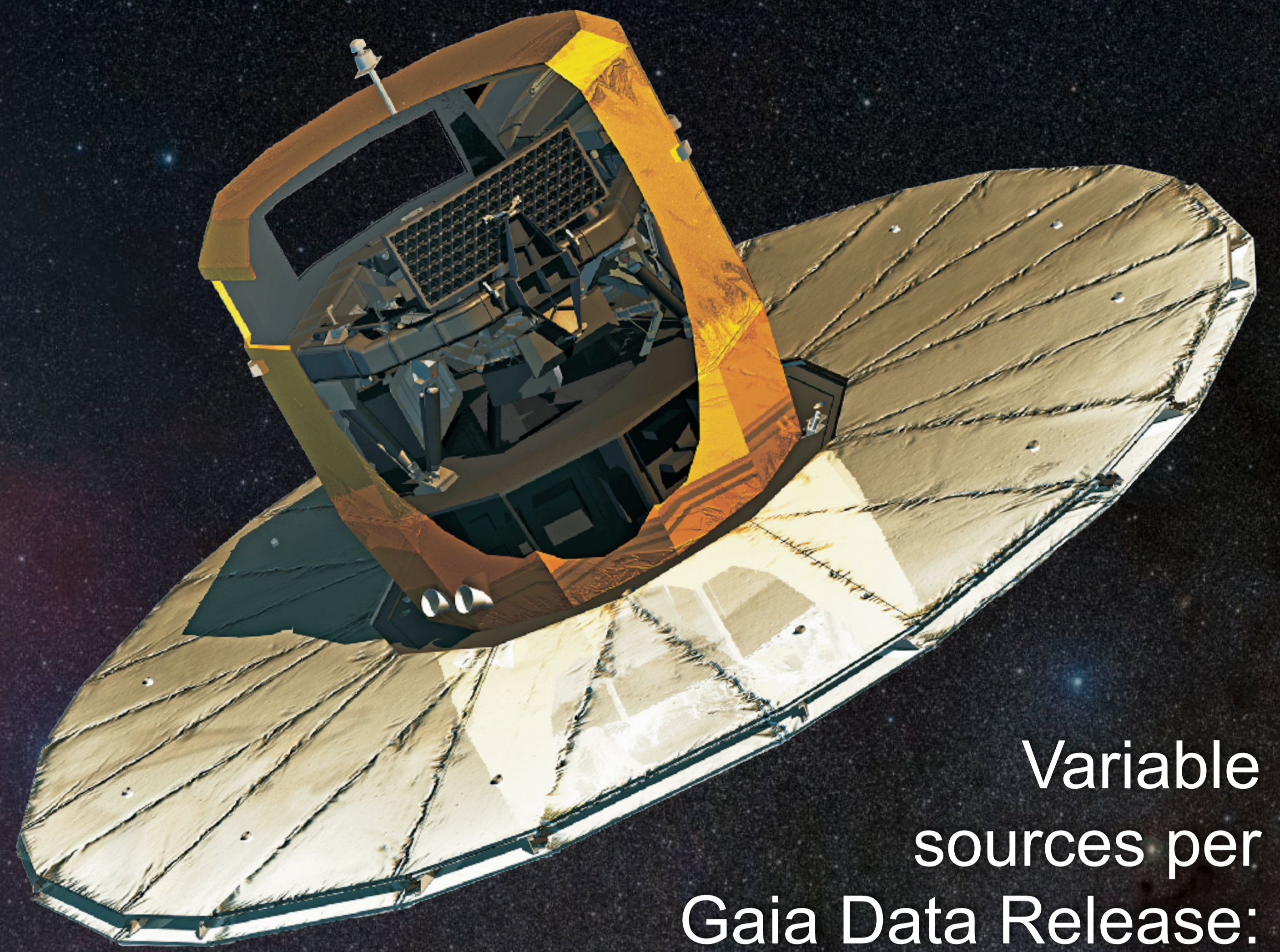
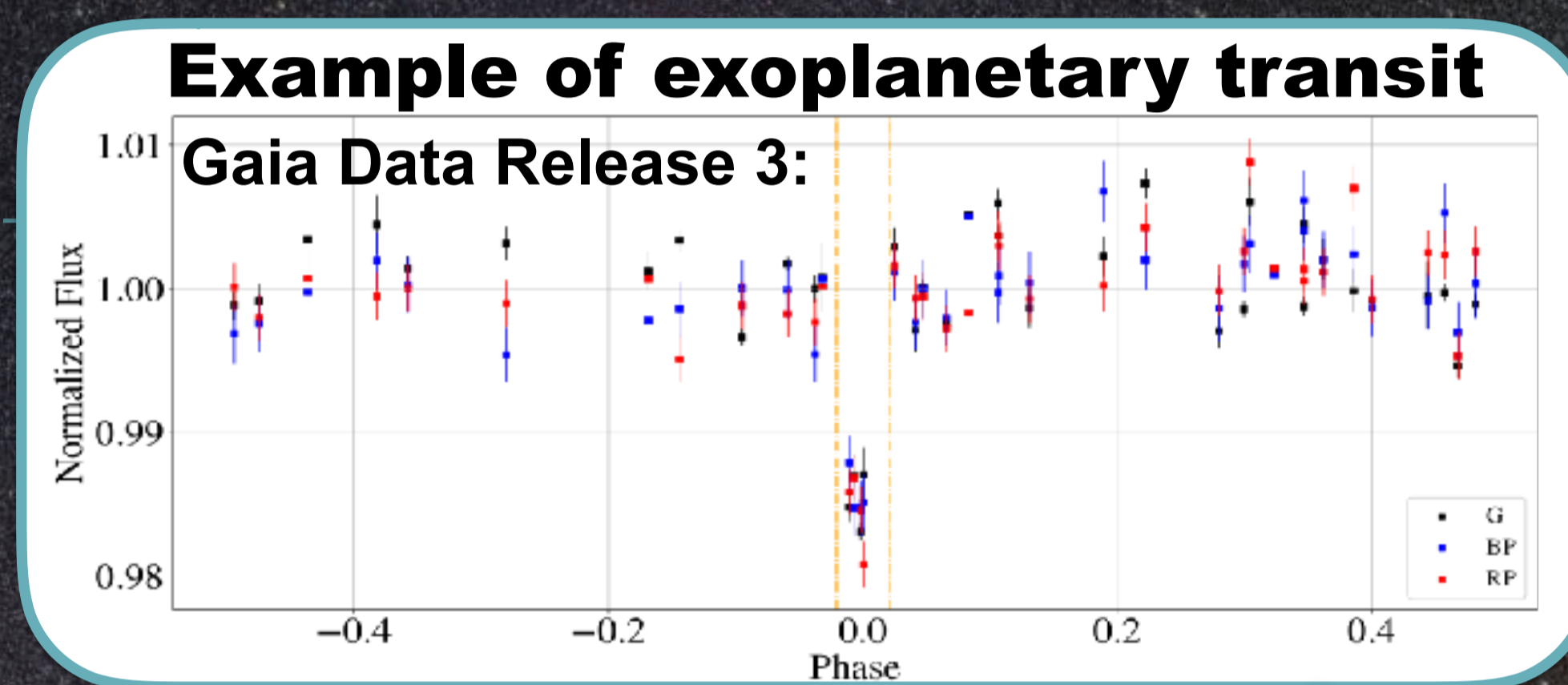
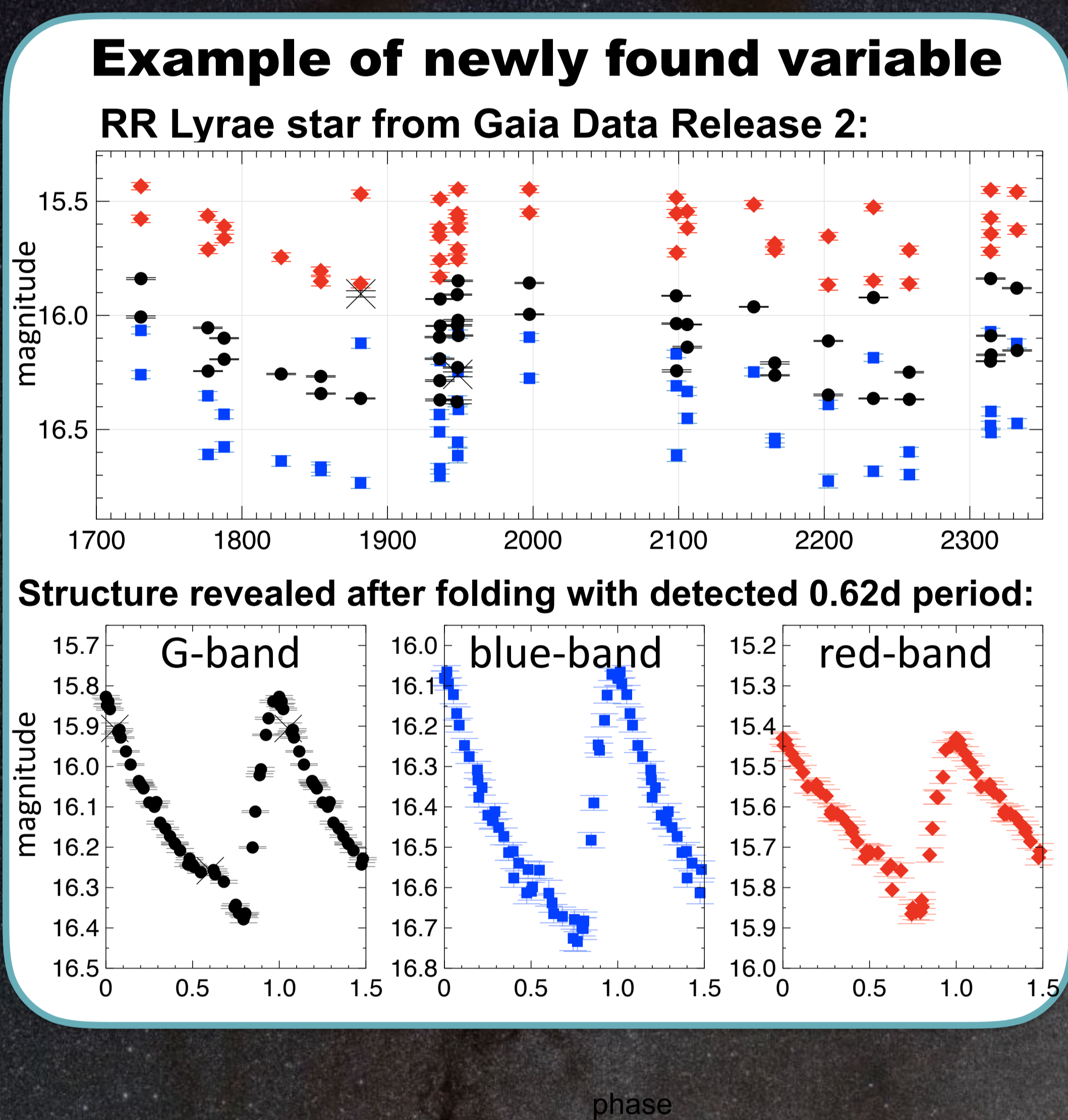


Gaia The 2 billion-star mission

- ★ Survey of the Milky Way
- ★ Simultaneous astrometric, photometric and spectroscopic observations
- ★ Three photometric bands
- ★ High-resolution spectrograph
- ★ >45 epochs over 5(+) years



Variable sources per Gaia Data Release:



200'000'000 (estimated)
legacy archive
≥ 2028

100'000'000 (estimated)
~2025

10'500'000
2nd quarter
2022

550'737
Apr 2018

3'194
Sep 2016

DR1 DR2 DR3 DR4 DR5

The largest variable catalogs ever!

Switzerland

- ✓ Responsible for the variability processing & analysis
- ✓ Develops automated methods to search for variability in:
 - ~523 billion observations of
 - ~1.8 billion sources
- ✓ Application of state of the art:
 - ▶ Machine Learning
 - ▶ Big Data analyses

Contact: Laurent.Eyer@unige.ch

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FACULTÉ DES SCIENCES
DÉPARTEMENT D'ASTRONOMIE



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