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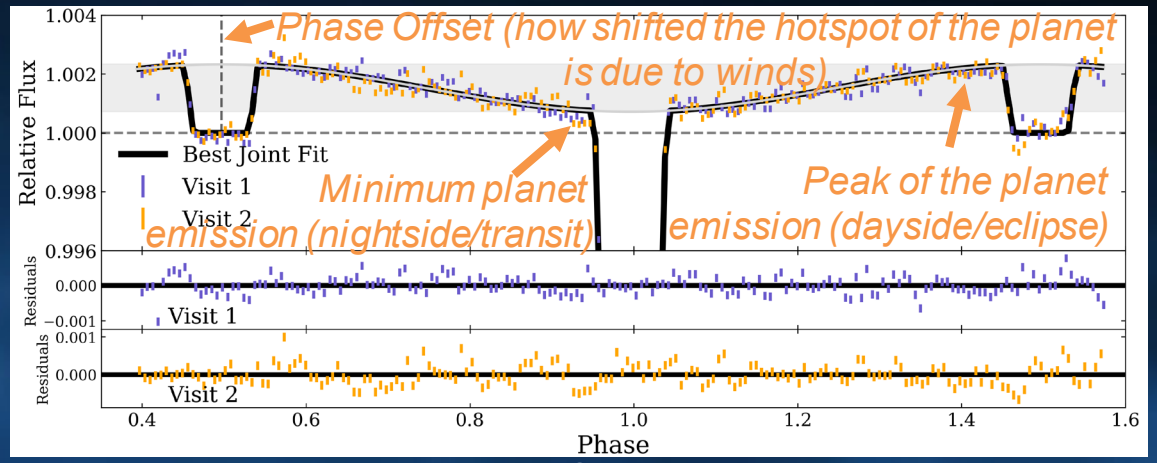
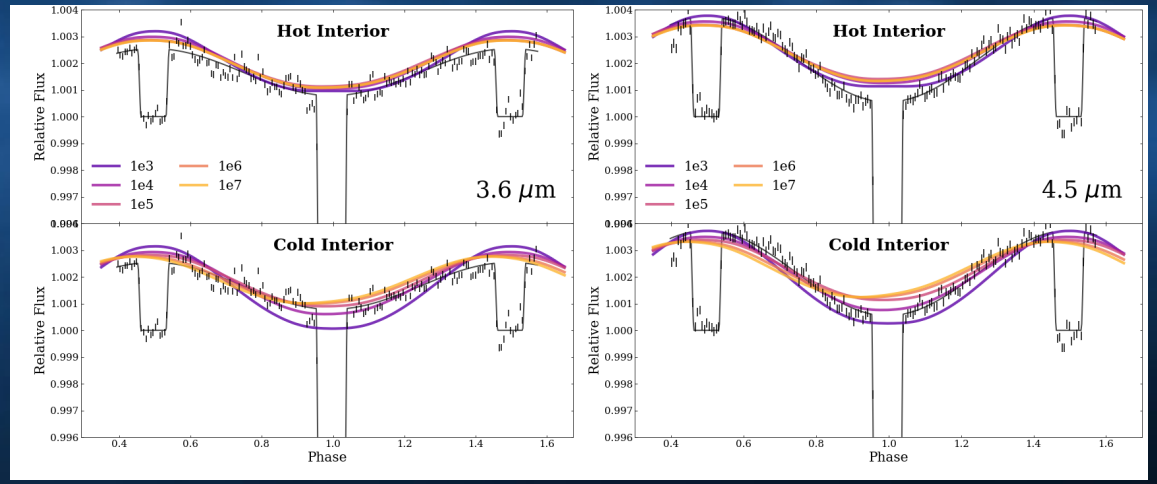
WASP-76b: Inflated like a Hot Air Balloon?



Example systematic-removed Spitzer phase curve observation with key observables labeled.



3.6 and 4.5 micron Spitzer Phase Curves compared to GCM predictions with hot and cold interiors, and different levels of atmospheric drag.

WASP-76b is an ultra hot Jupiter (2200 Kelvin) that has a larger radius than we would expect. *Could this be due to a hot internal temperature heating up and inflating the atmosphere?*

- Because WASP-76b is tidally locked to its star, *a hot internal temperature would most strongly affect the planet's permanent night side.*
- Phase curve observations are the only way to measure the night side emission of a planet. So we observed the planet with Spitzer.
- We compared observations to 3D General Circulation Models (GCMs) and found that a *cold* interior best matches the data. But our models did make some simplifications! *More work is needed!*

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