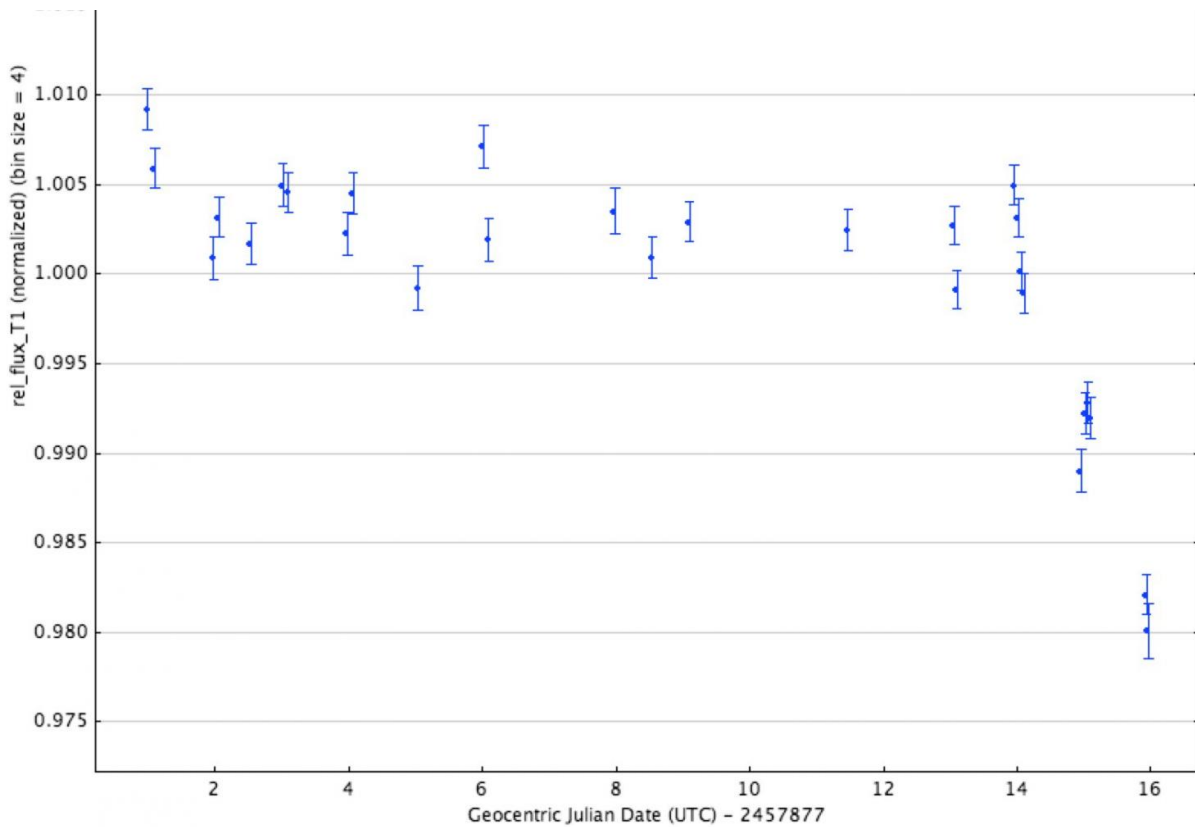


# Tabby's star dims again, multiple telescopes to examine its spectra

May 22 2017, by Bob Yirka



Credit: @tsboyajian

(Phys.org)—Telescope operators around the world have been notified that "Boyajian's star" (officially known as KIC 8462852) has dimmed again, offering space researchers a unique opportunity to study the star,

which has baffled scientists ever since its discovery by a team at Yale University in 2015 led by Tabetha Boyajian. Subsequently nicknamed Tabby's star, it has been found to dim periodically to differing degrees, which cannot be attributed to a planet passing between it and us. At one point in time, it was found to have dimmed approximately 22 percent—by comparison, if a planet the size of Jupiter was to pass in front of our own star, an observer 1,300 light years away (the distance that Tabby's star is from us), would see just a 3 percent reduction of light.

There have been many theories regarding the reason for the changes in brightness, including multiple comets passing in front of it, a gas cloud, or an alien structure—but none have come close to being provable. Because of that, space scientists have been hoping and waiting for another dimming event to occur, an opportunity to examine the light changes in a variety of ways. Specifically, they would like to have multiple telescopes studying its spectra at the same time—if the light from the star is suddenly passing through a [gas cloud](#), for example, researchers could tell by the way it impacts the [light](#), even offering which types of chemicals might be in the gas. Examining the spectra over time would also allow scientists to discern if there is an object moving between us and the star.

Making things difficult for the researchers was that dimming events are not periodic—they have instead proved to be quite unpredictable. That is why this new event has the space community excited, because it might be an opportunity to solve the mystery. To that end, word has gone out to telescope operators across the globe, even to amateurs, to suspend current activities and instead focus on Tabby's star for as long as possible. Once the dimming event is over, it is hoped that massive amounts of data will have been collected which can be pored over by novices and experts alike, all searching for an answer for the strange dimming.

ALERT: [@tsboyajian](#)'s star is dipping

This is not a drill.

Astro tweeps on telescopes in the next 48 hours: spectra please!

— Jason Wright (@Astro\_Wright) [May 19, 2017](#)

[@ajebson](#) [@NASAKepler](#) [@LCO Global](#) [@keckobservatory](#)  
[@AAVSO](#) [@nexssinfo](#) [@NASA](#) [@NASAHubble](#)  
[@Astro\\_Wright](#) [@BerkeleySETI](#) [@ESO](#) its 2% in r' band and  
looks like its the start [pic.twitter.com/TjJdSY2ar9](https://pic.twitter.com/TjJdSY2ar9)

— Tabetha Boyajian (@tsboyajian) [May 19, 2017](#)

© 2017 Phys.org

Citation: Tabby's star dims again, multiple telescopes to examine its spectra (2017, May 22)  
retrieved 28 April 2024 from

<https://phys.org/news/2017-05-tabby-star-dims-multiple-telescopes.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.