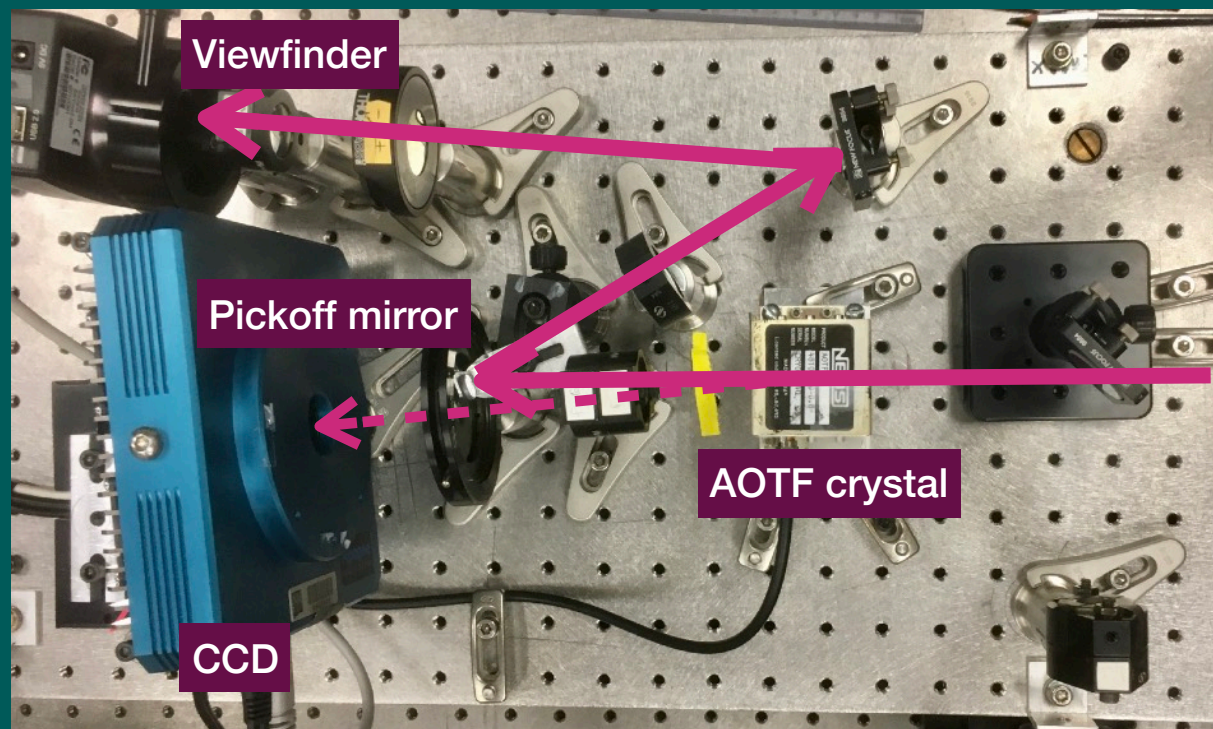


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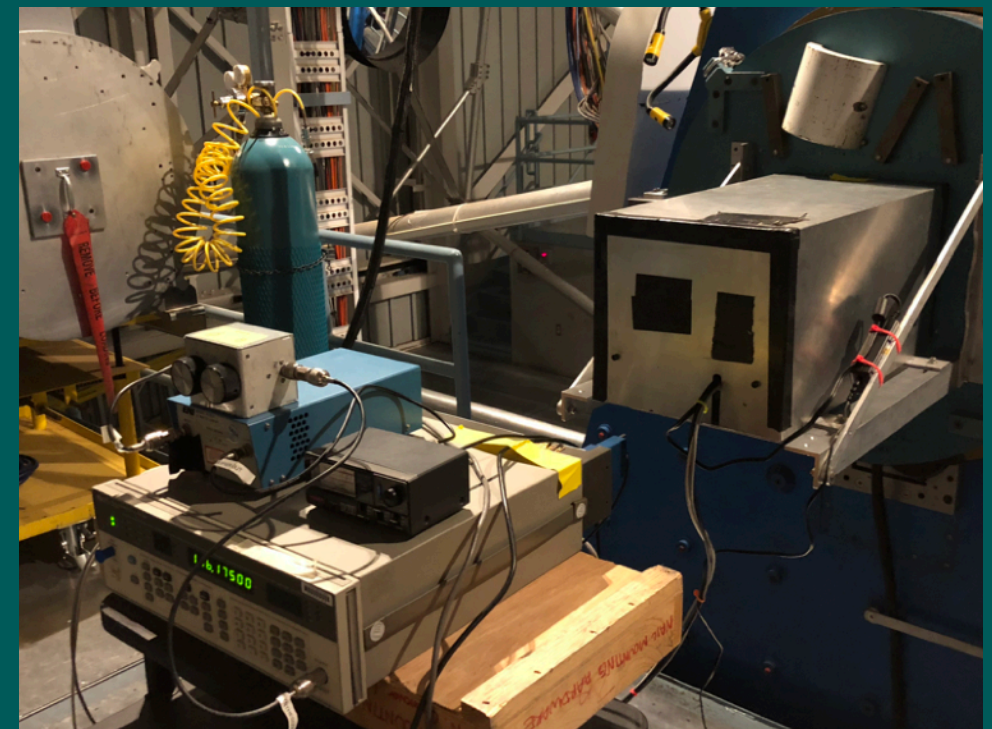
New Mexico State University

*Observing and modeling Jupiter in support of Juno:  
Instrumentation, observations, and data reduction*

**NMSU Acousto-optic Imaging Camera (NAIC):  
Built and characterized w/ NMSU engineers**



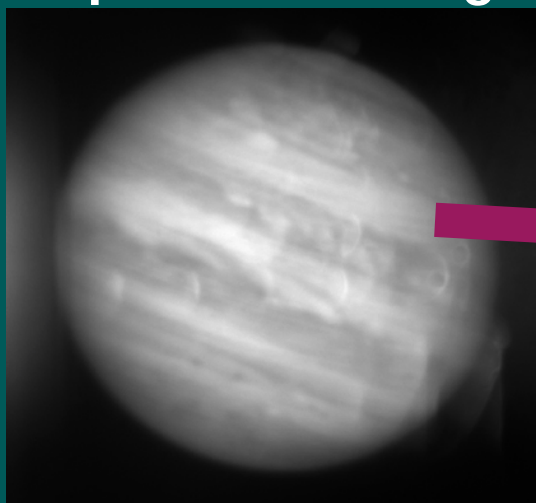
**NAIC mounted on the 3.5-m telescope  
at Apache Point Observatory**



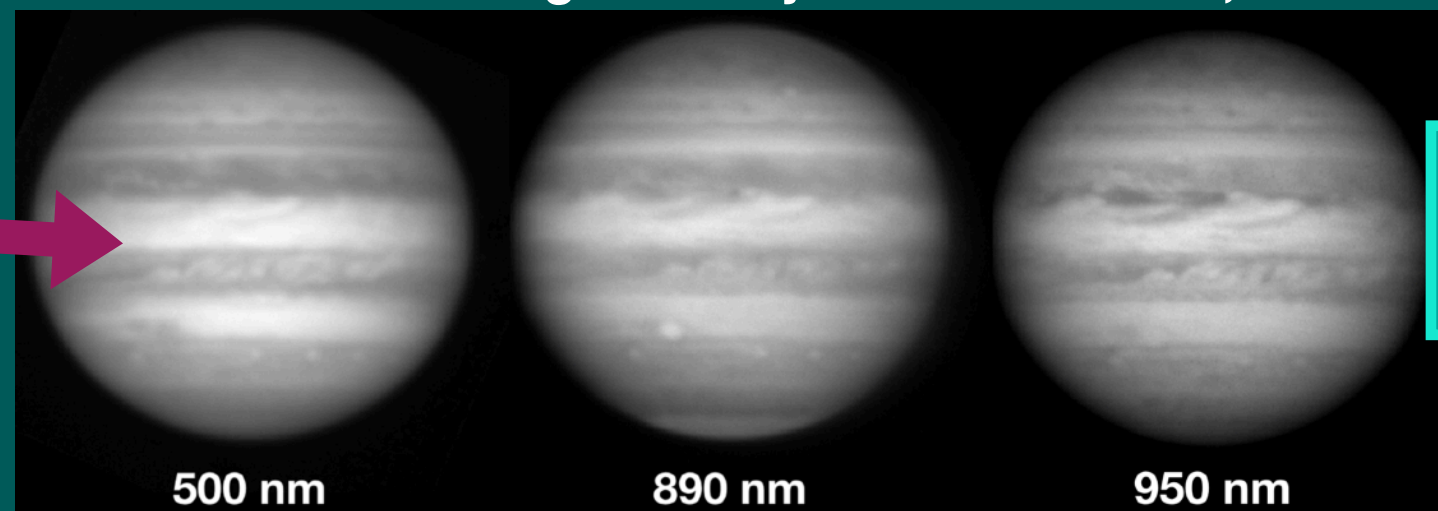
**12 observing runs completed to date**

**Products: hyperspectral image cubes of Jupiter during Juno passes at 470-950 nm**

**Unprocessed image:**



**Selected wavelengths: Perijove 5 - March 26, 2017**



**Find my pipeline at:  
[github.com/dahlek](https://github.com/dahlek)**

# Emma Dahl

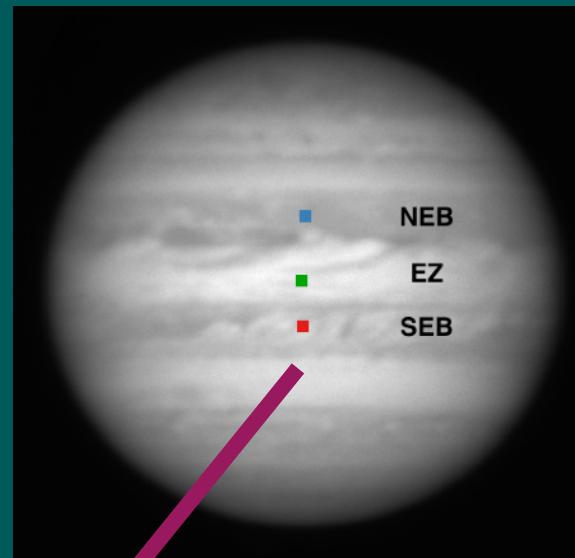
New Mexico State University

*Observing and modeling Jupiter in support of Juno:  
Radiative transfer modeling - testing  
the Creme Brûlée model*

Big picture questions I'm working on:

What is the structure of Jupiter's uppermost cloud deck during the Juno era?

What makes Jupiter's bands and storms red?



Currently using the **NEMESIS** radiative transfer code to test the hypothesis of the Creme Brûlée model of Jupiter's clouds:

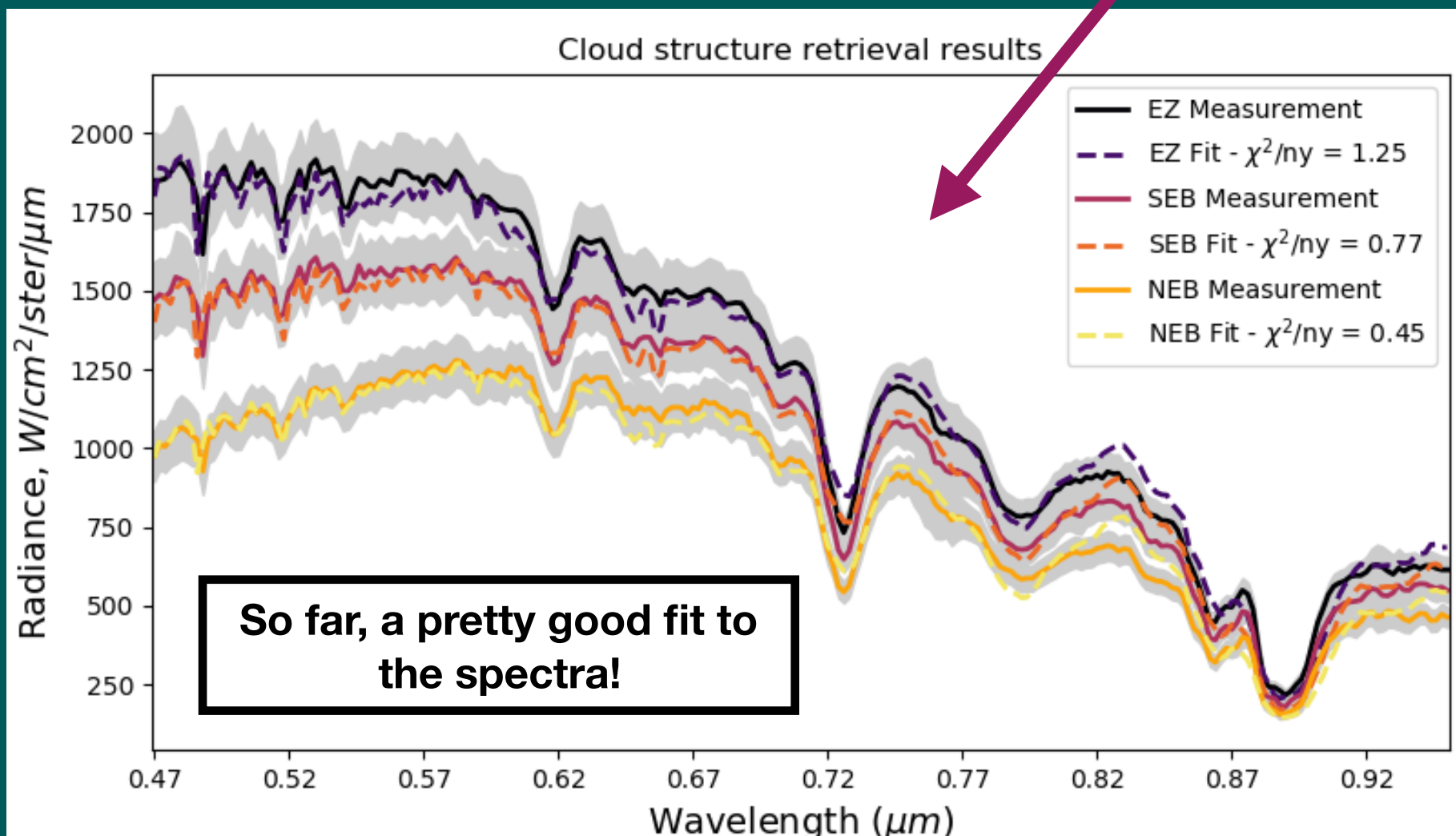


e.g. Baines et al. 2019

Dahl et al. 2020 in prep!

Further work:

Since these data were taken during Juno perijove passes, these data can also provide context for IR/microwave measurements





# Emma Dahl

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## *Contact info:*

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**Twitter - [@dahlek](https://twitter.com/dahlek)**

**Expected graduation date: Fall 2020**

*Thank you for your time!*

