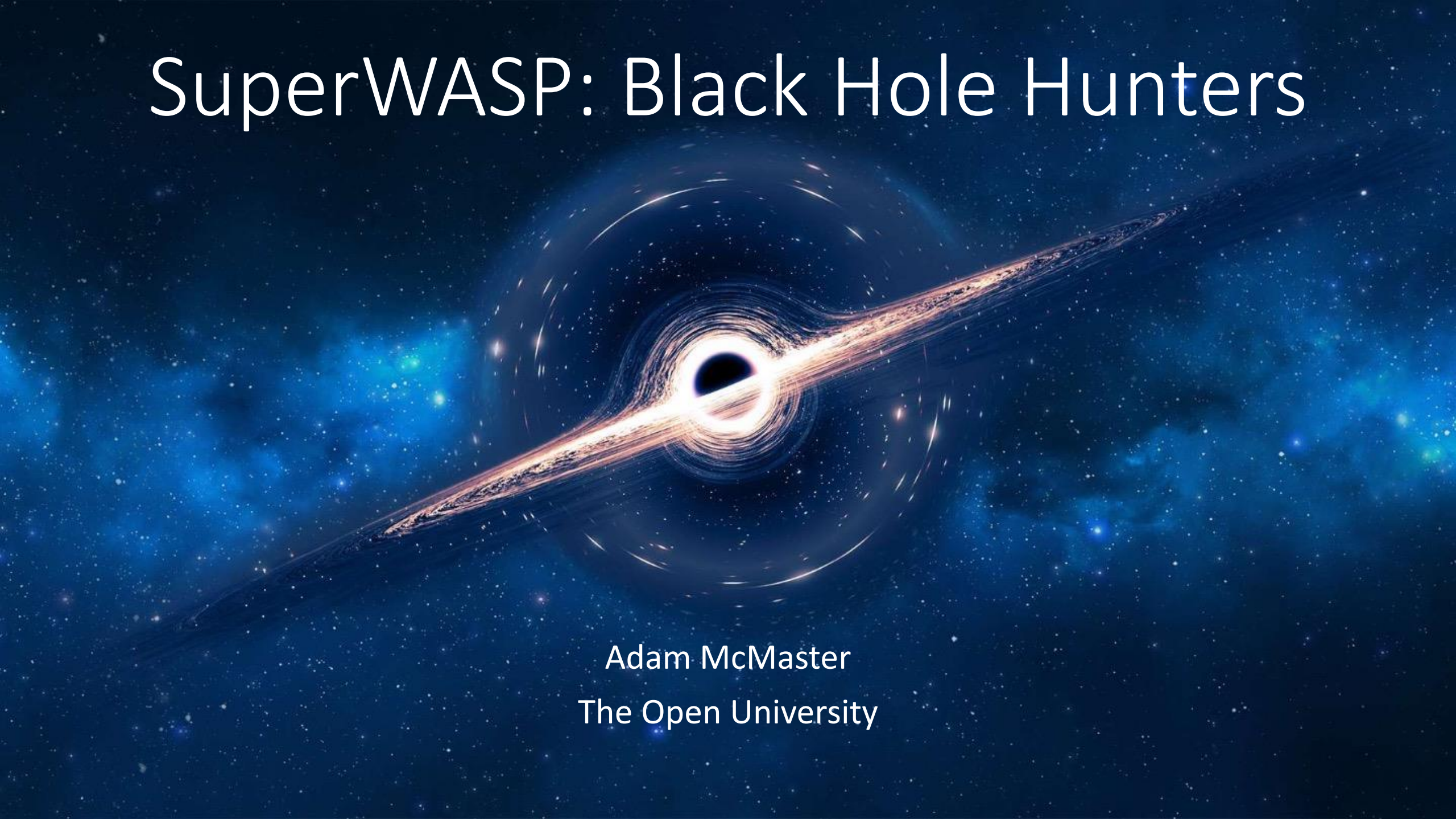
SuperWASP: Black Hole Hunters



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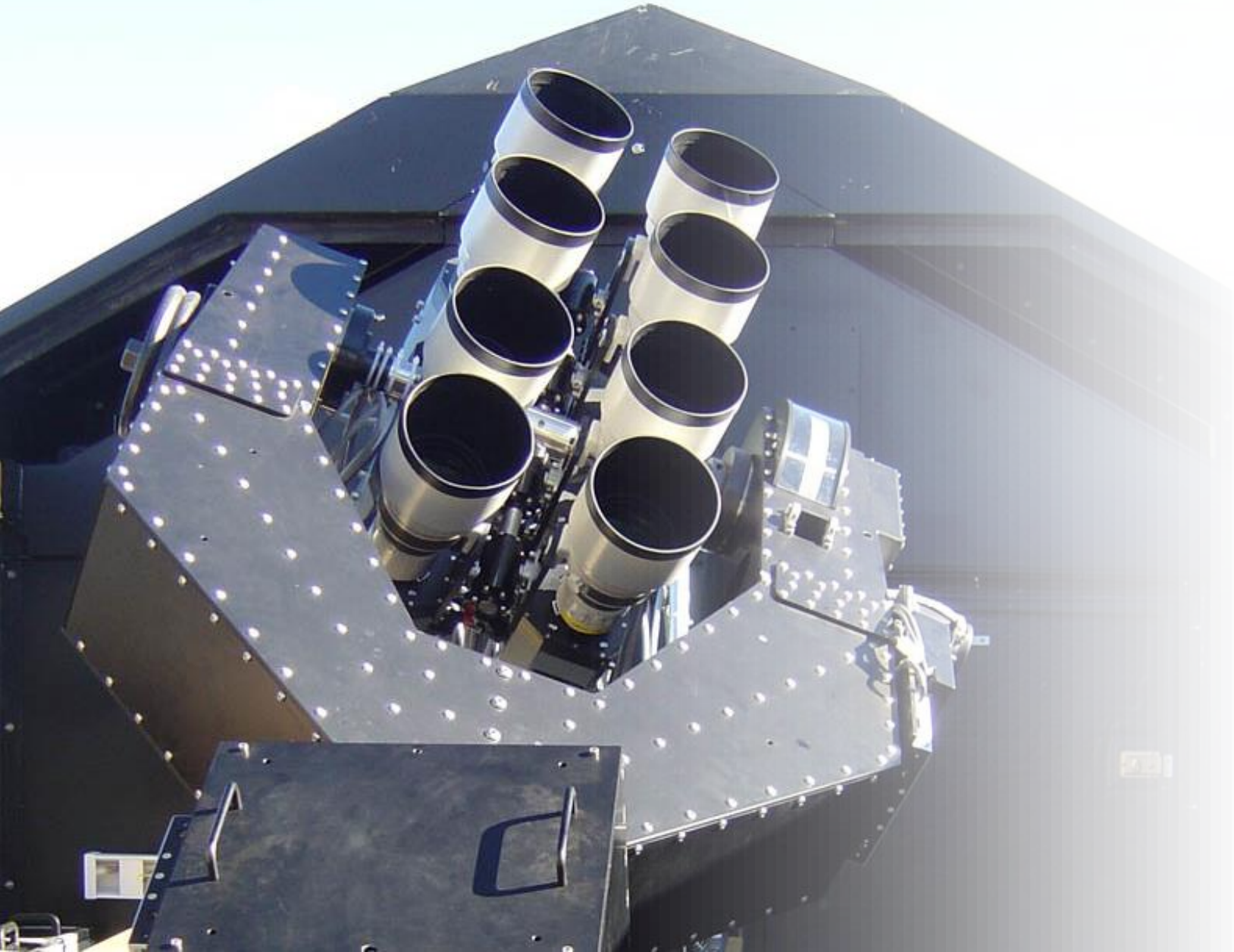


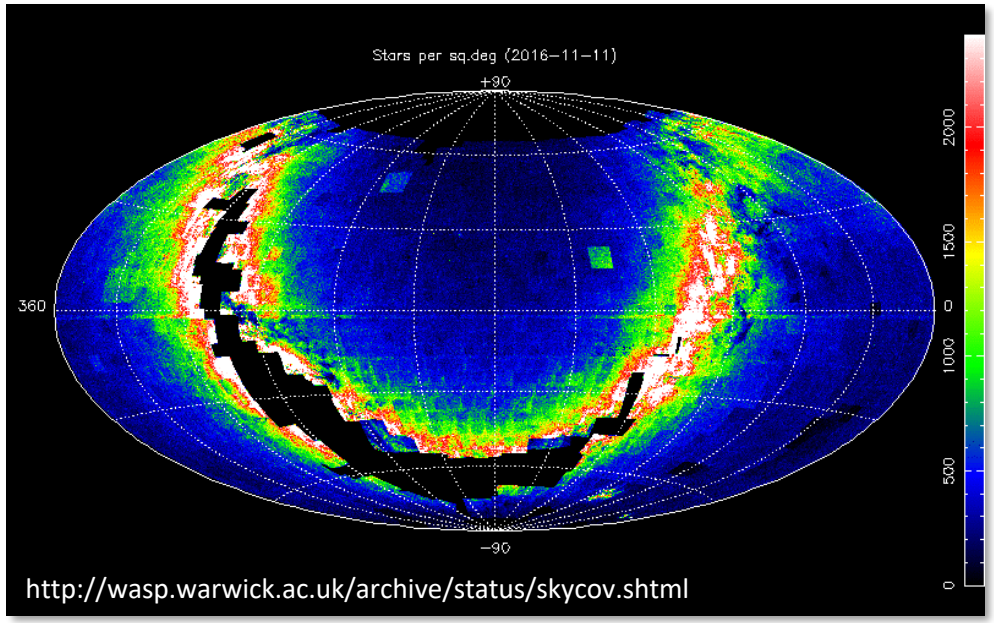
What is SuperWASP?

The **W**ide **A**ngle **S**earch for **P**lanets – a ground-based exoplanet search

Two telescopes (North and South)

SuperWASP

The most successful ground-based exoplanet search

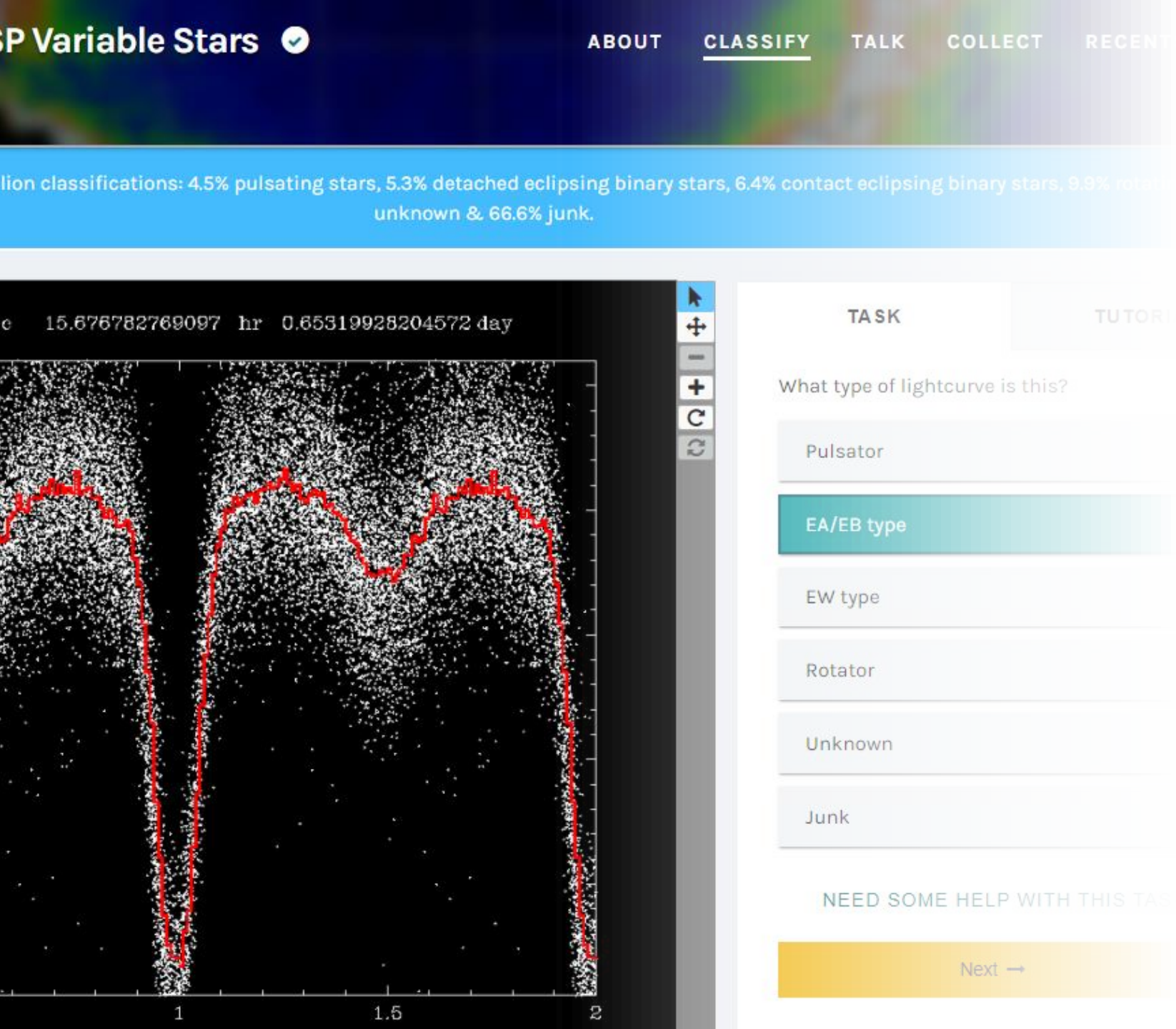


Two telescopes: North in La Palma, South in South Africa

Operated from 2004 - 2016

Photometric lightcurves of ~31 million stars

The data can be used for other things. We're looking for variable stars.

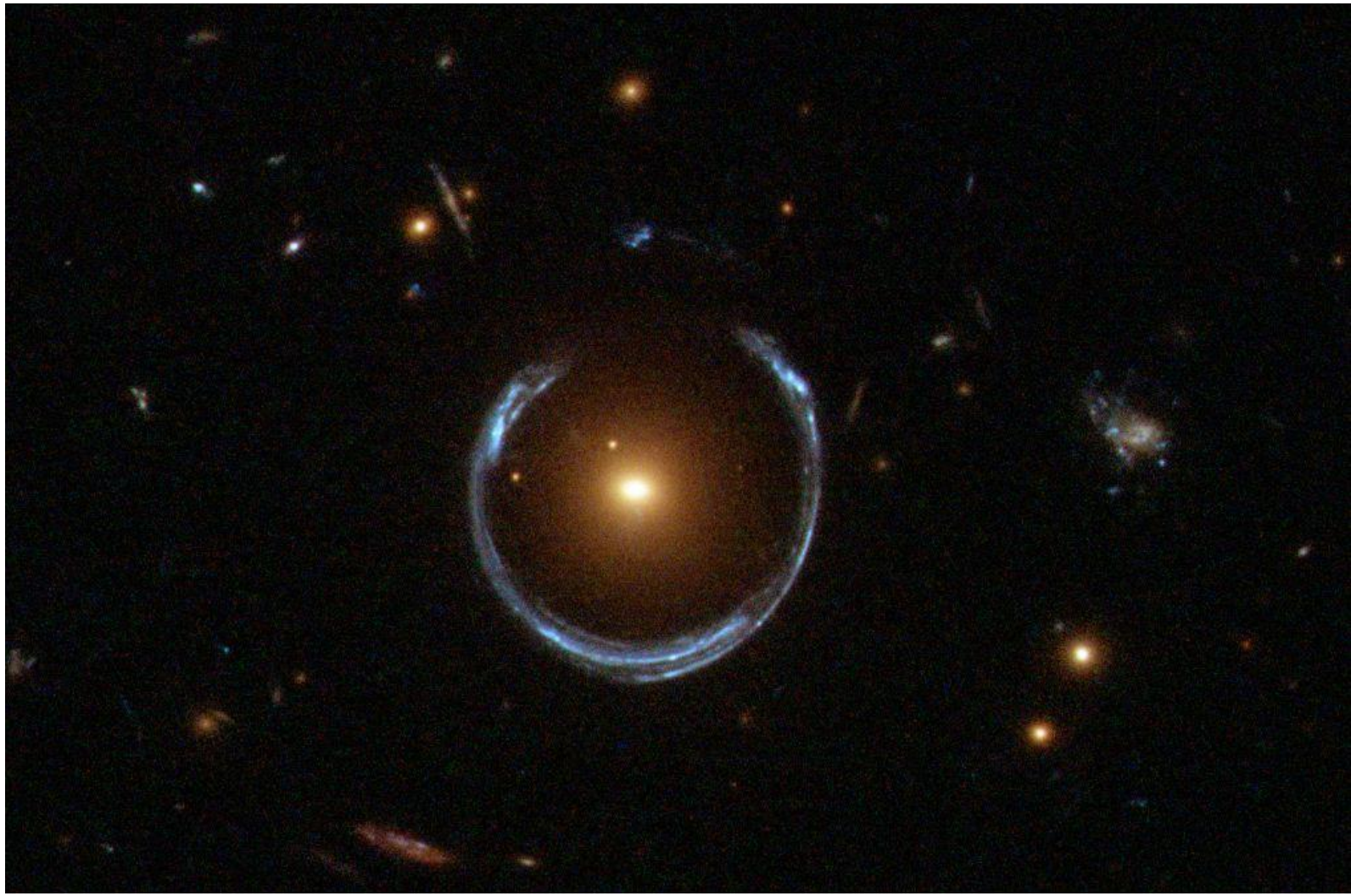


The SuperWASP Variable Stars Zooniverse project

Human volunteers classifying variable stars in SuperWASP data

zooniverse.org/projects/ajnorton/superwasp-variable-stars

Gravitational Lensing



Gravitational Microlensing

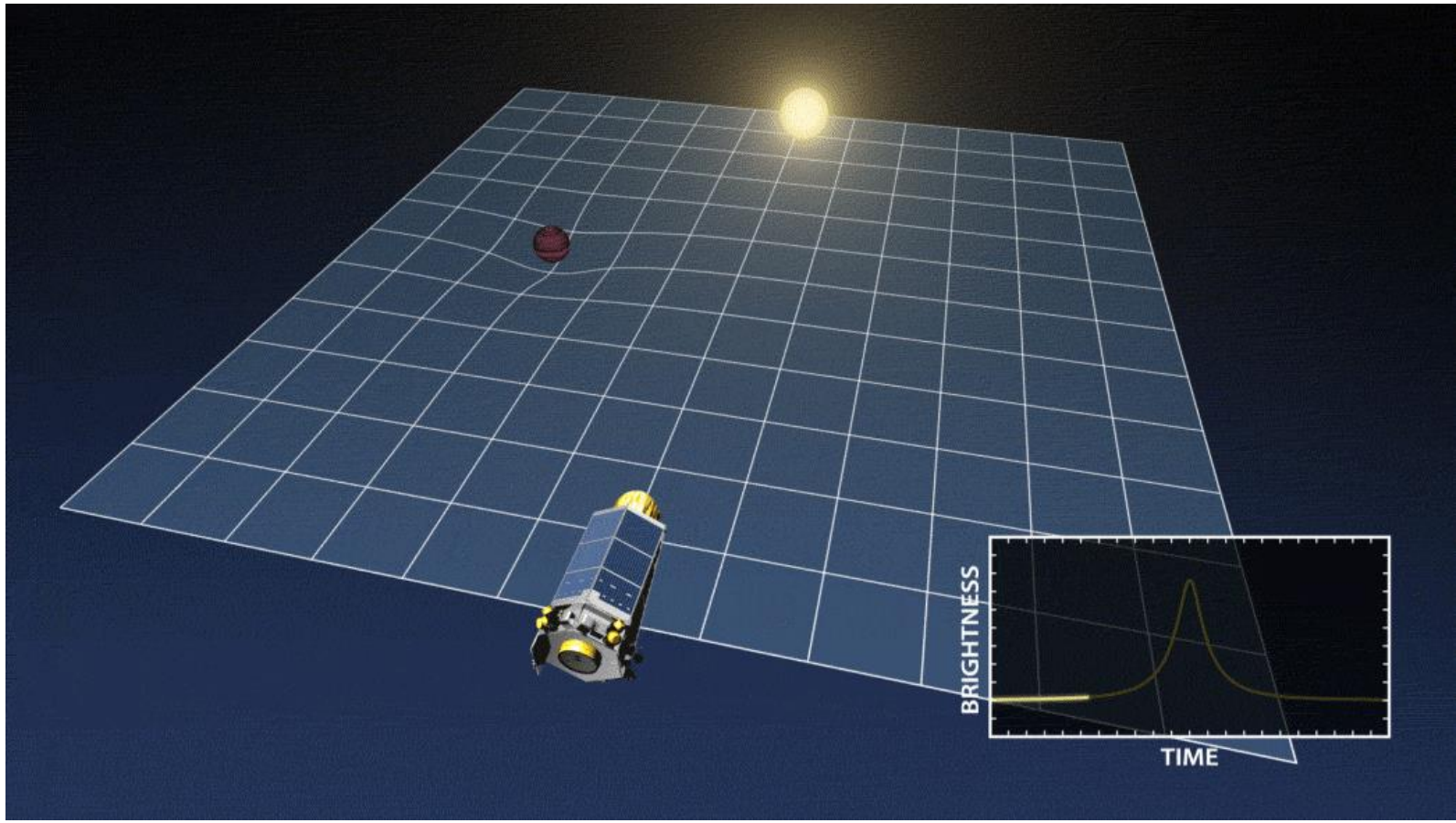
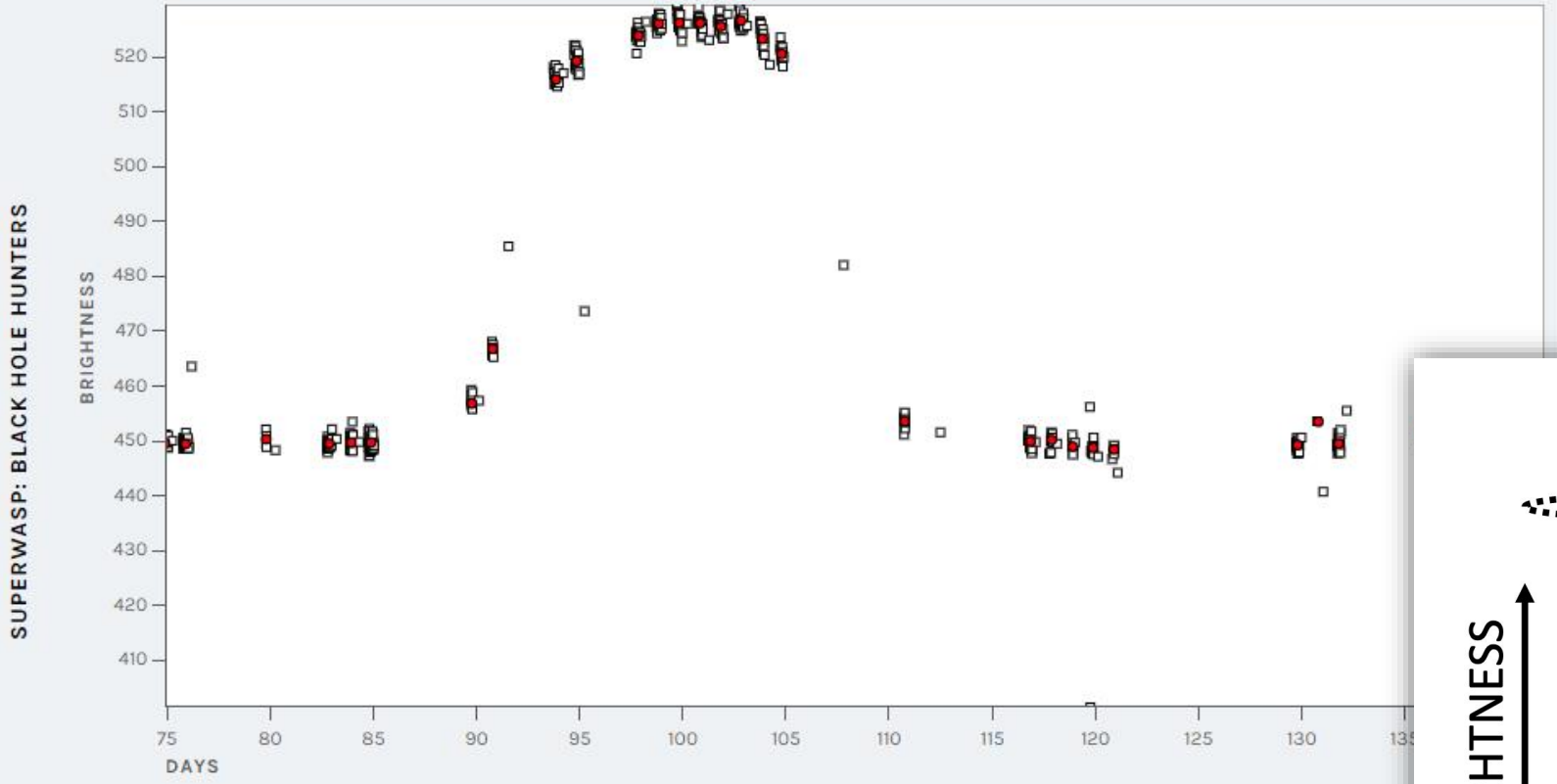


Image: Wikipedia

SuperWASP: Black Hole Hunters

ABOUT | CLASSIFY | TALK | COLLECT | RECENTS

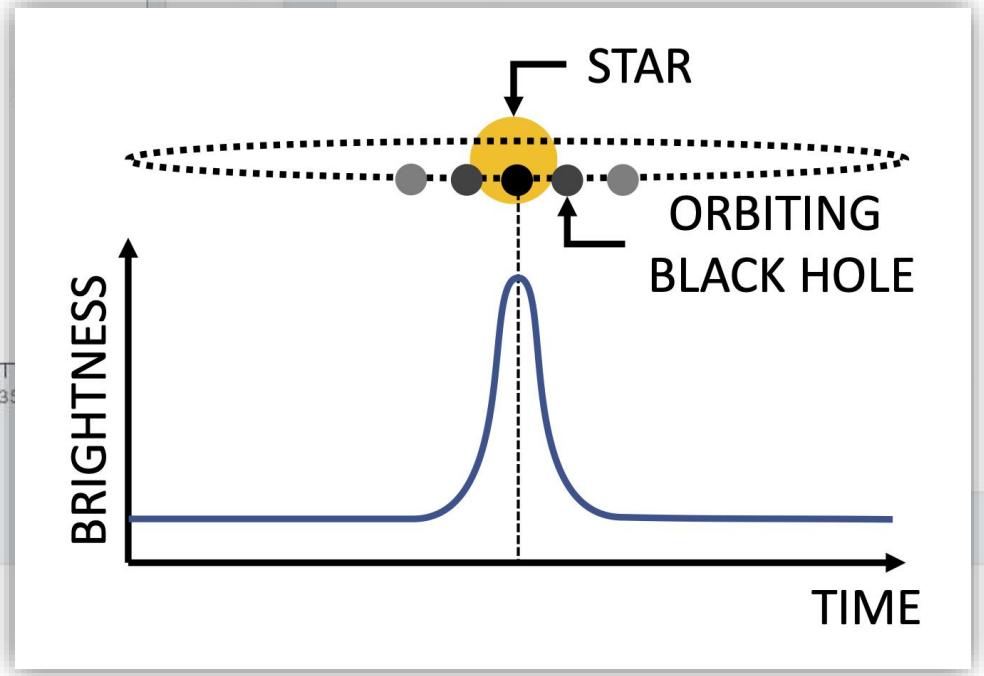


SUBJECT INFO | ADD TO FAVORITES | ADD TO COLLECTIONS

TASK | TUTORIAL

Can you see a sharp peak in the graph that might be a hidden black hole?

Look for **symmetrical** peak-like features in the light curve containing **four or more red circles**. If you see a feature that fits the description, then answer "Yes". Otherwise, answer "No".



SWITCH TO DARK THEME

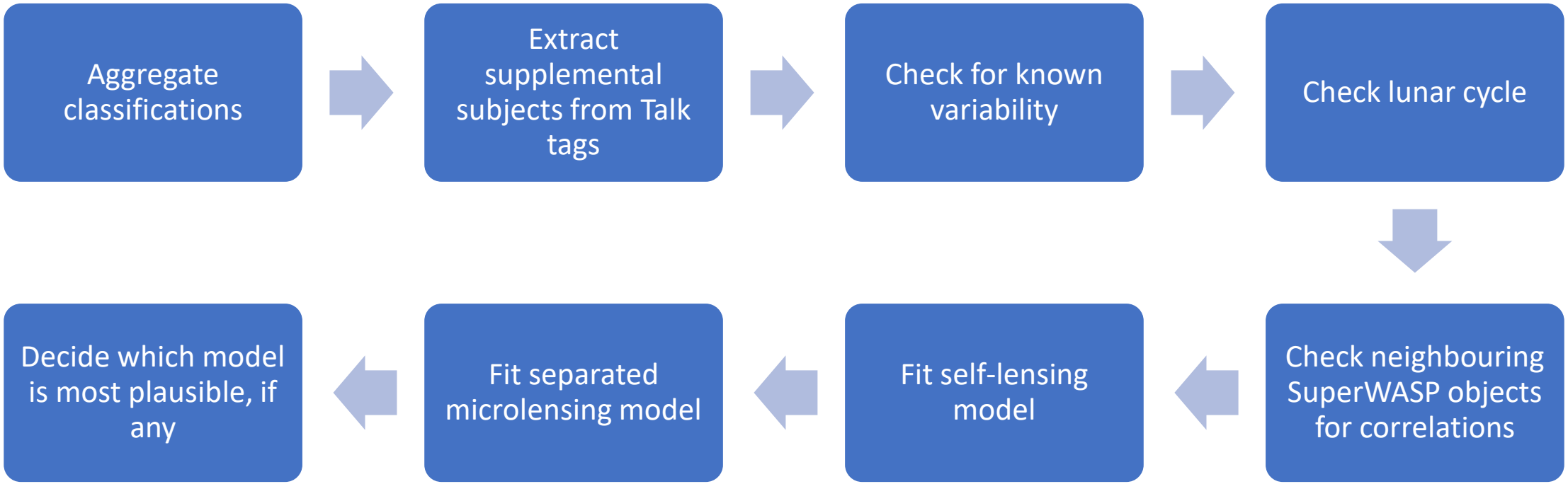
Finished for the day?

Your answers are saved for the research team while you're working. See the project stats and return to the SuperWASP: Black Hole Hunters home page.

2 million classifications
184,000 completed subjects

as of September 2022

How we extract candidates from the Zooniverse



200+ subjects from classifications
300+ subjects from Talk

… but we still need to filter out false positives!

What's next

- Finishing candidate vetting and modelling process
- Paper with first candidates in 2023
- Public event at the British Science Festival this month (17 Sept)

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superwasp.org/get-involved

@BlackHoleHunter