

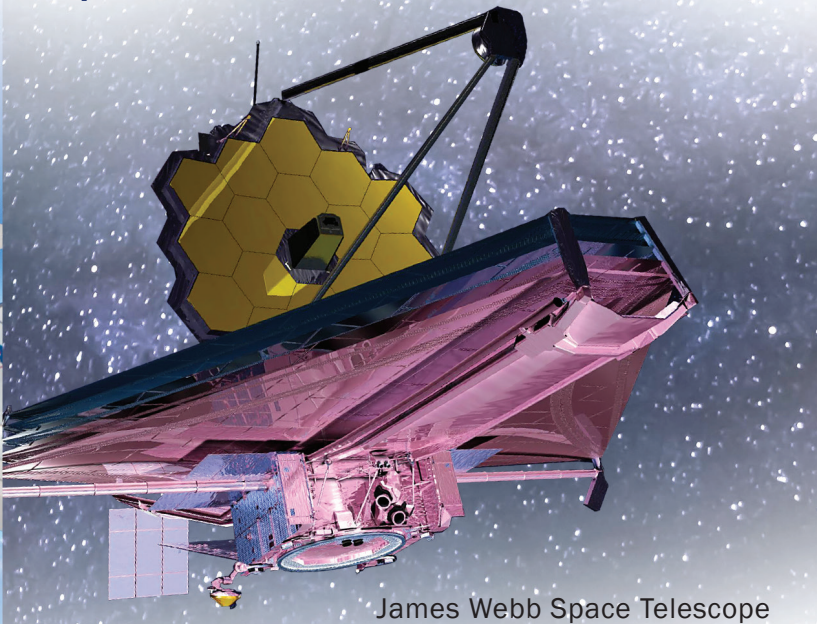
# SOFIA vs. JWST

## What's the difference?

While both these telescopes have immense value, they are different and their differences complement each other



Stratospheric Observatory For Infrared Astronomy



James Webb Space Telescope

### Unique

- The only observatory that observes in the far infrared
- Unique access to wavelengths longer than what is observable with JWST and shorter than what is accessible to ALMA

### Powerful in Scope

- Largest space observatory in history working in the near and mid infrared range
- Will collect infrared light from distant corners of the universe
- Will allow us to probe origins of the universe and our place in it

### Tailored

- Because of its ability to change instruments, SOFIA is able to customize its capabilities according to science requirements
- SOFIA lands after each flight, facilitating servicing and maintenance

- JWST has a robust design for its 5 year mission and 10 year goal
- However, it is not serviceable because of the distance it will operate at – 1,460,529 kilometers away from Earth

### Observations

- SOFIA probes bright, iconic objects such as stars forming in the Milky Way, nearby galaxies, and solar system bodies such as the Moon, Earth, and Venus

- JWST observations of the distant universe and nearby faint objects complement observations made by SOFIA

### Complementary Role

- SOFIA offers detailed observations of the nearby universe that can calibrate what is happening in the distant universe observed by JWST
- SOFIA probes the Interstellar Medium in the nearby universe

- JWST offers detailed observations in the near infrared that complement what SOFIA finds in the far infrared
- JWST pushes the frontier limits of the distant universe, so both telescopes together in fact cover the whole universe

### International Expertise

- SOFIA works with its German Partners at DLR and its proposal calls are open to the scientific community worldwide

- JWST has combined the expertise from the United States, Europe, and Canada to develop the observatory and instrumentation suite and its proposal calls are open to the scientific community worldwide