

## How Big Is Space? How Do We Know?

If you want to know how far it is to the nearest town, the only direct way to figure it out is to go there. We can't go to outer space, so how do we know how far away things are? We have to use what we know about light, temperature, gravity, and other physics to infer how far away things must be, if they are to look the way we observe them from Earth. I will show, step by step, how we know the distance to the Moon, the Sun, the nearest stars, the center of our galaxy, other galaxies, and so on out to the edge of the visible universe. By the end of the hour, you'll know our place in space, and how this self-perception was discovered.



*Dr. Don Smith from Guilford College will deliver the public lecture for the 2019 edition of Davidson Space Day.*