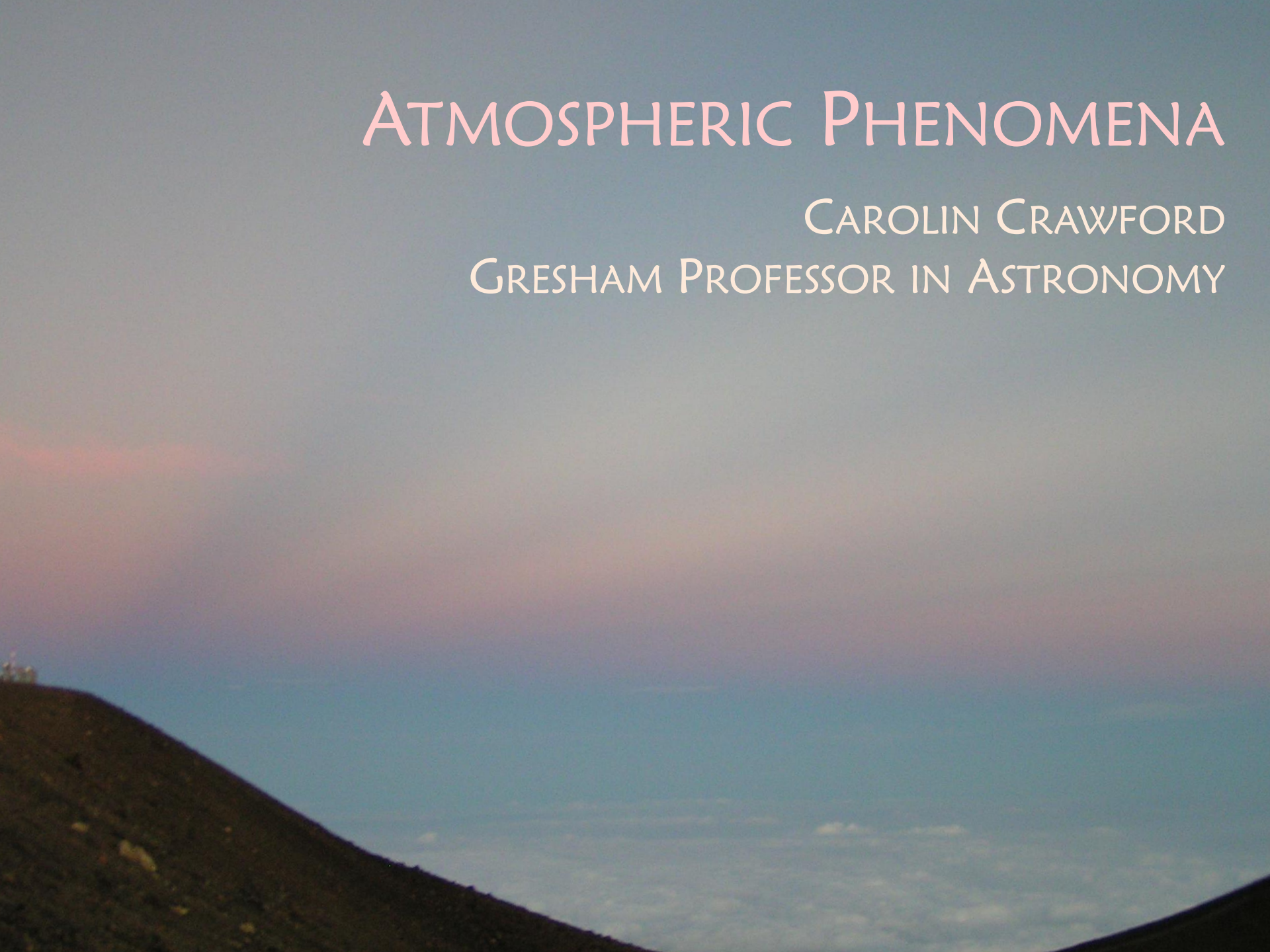


ATMOSPHERIC PHENOMENA

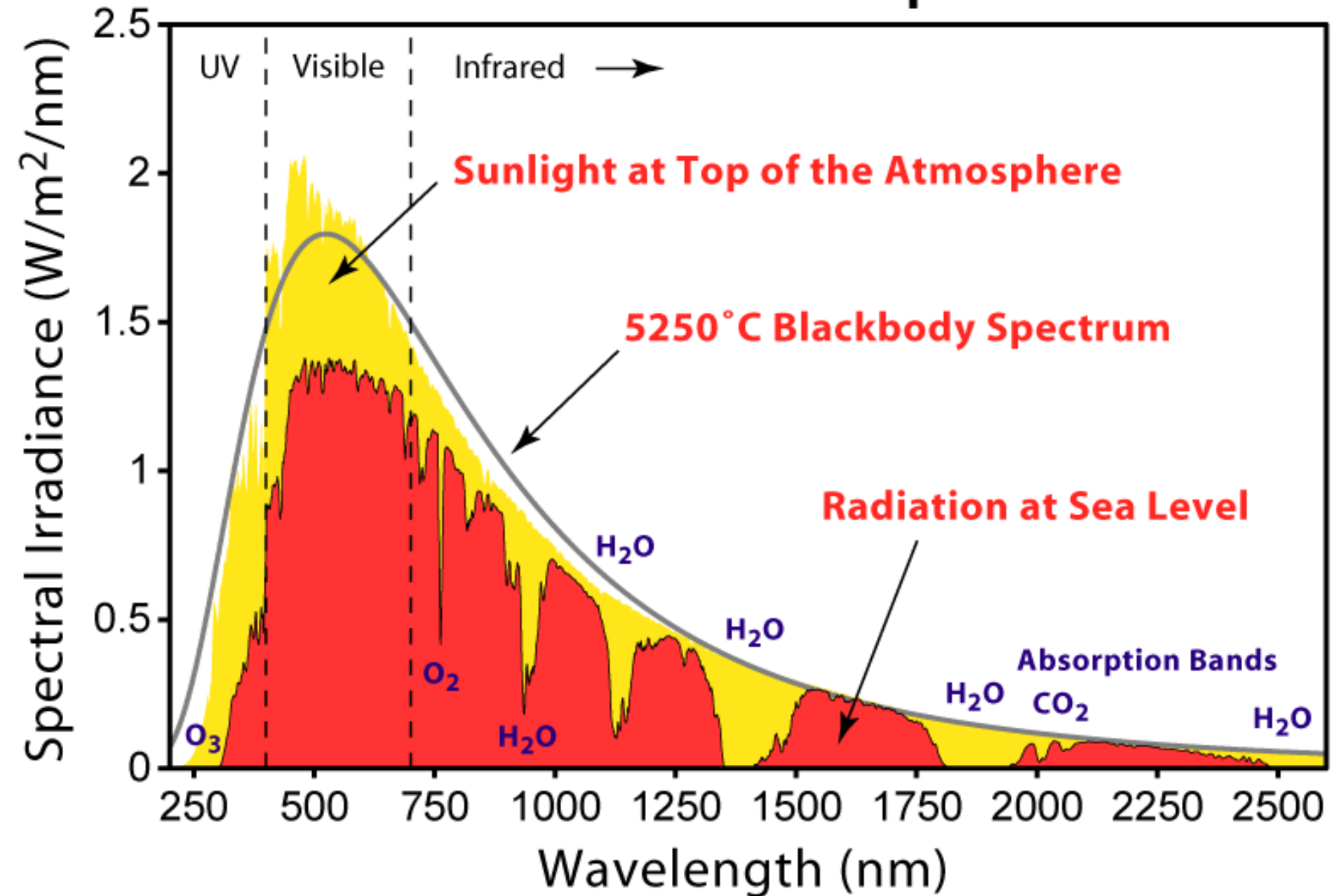
CAROLIN CRAWFORD
GRESHAM PROFESSOR IN ASTRONOMY

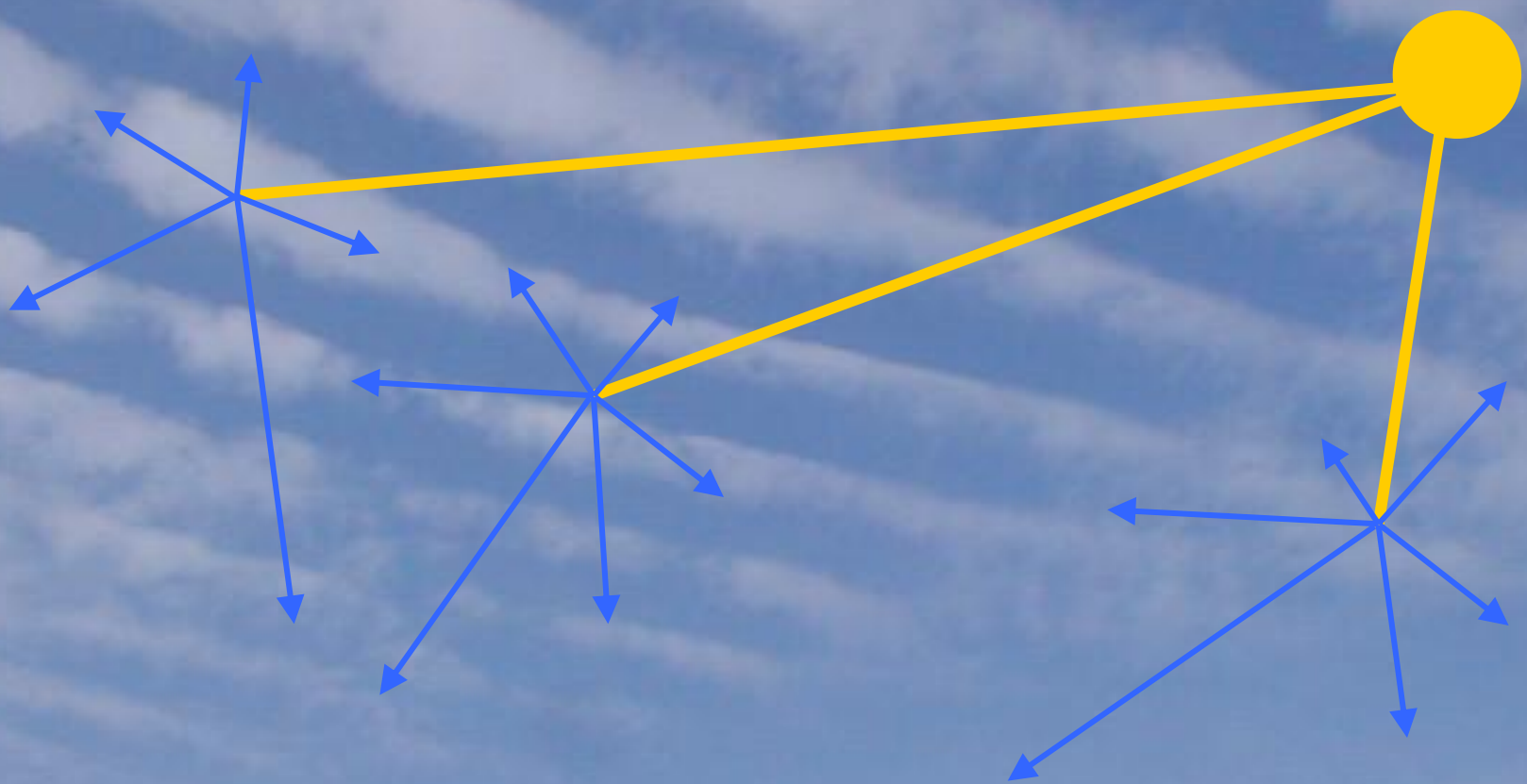






Solar Radiation Spectrum

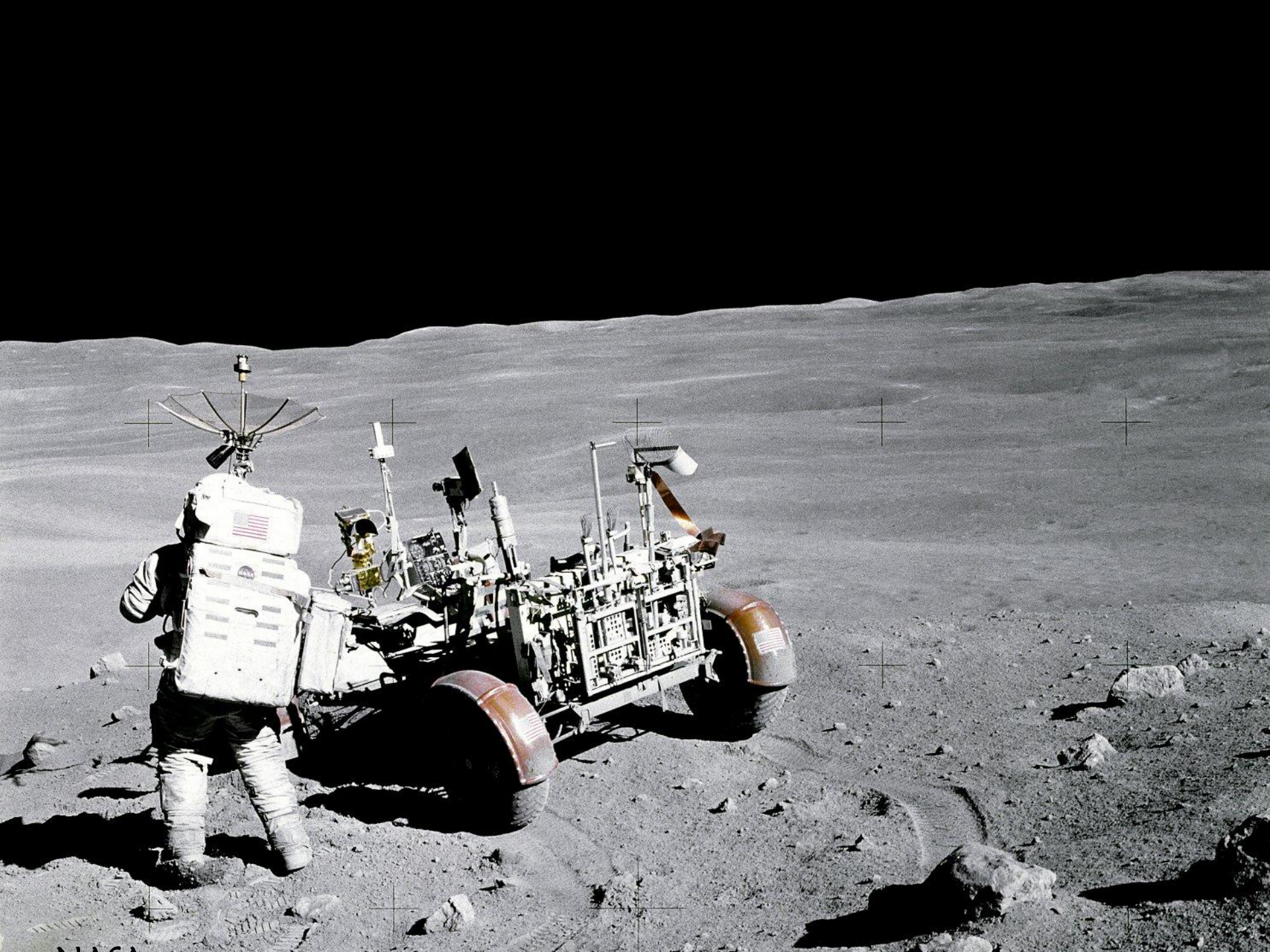




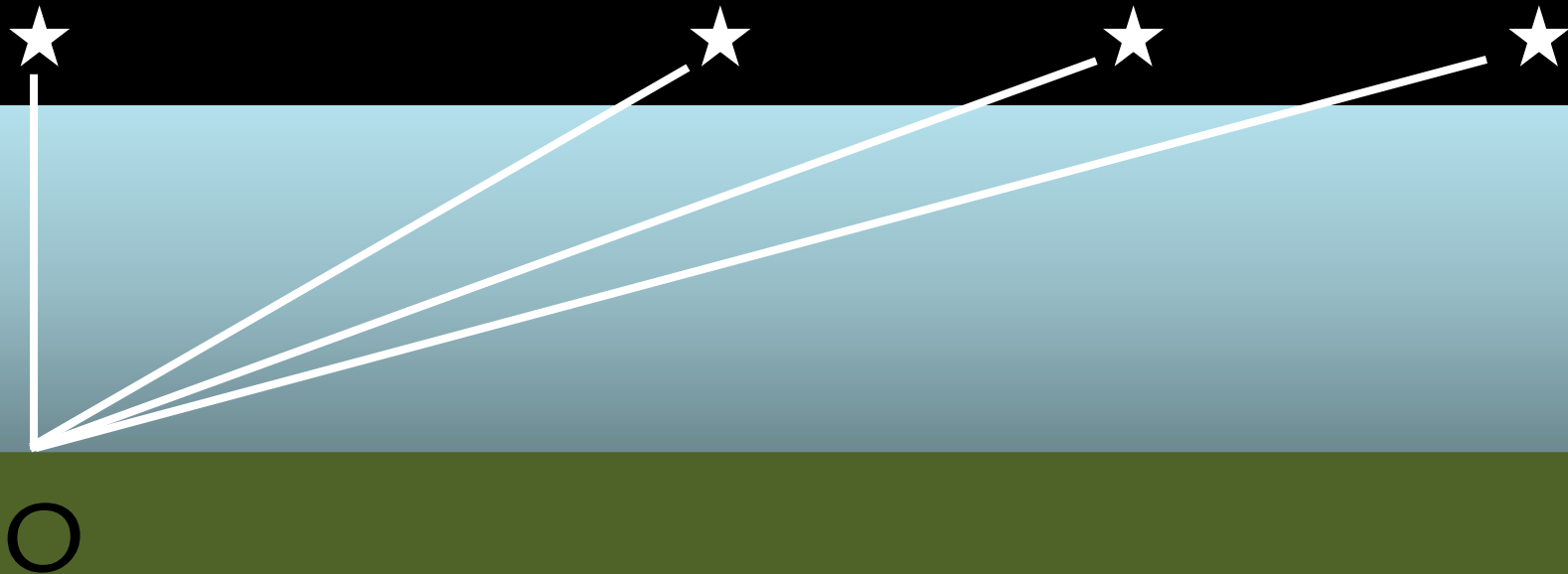
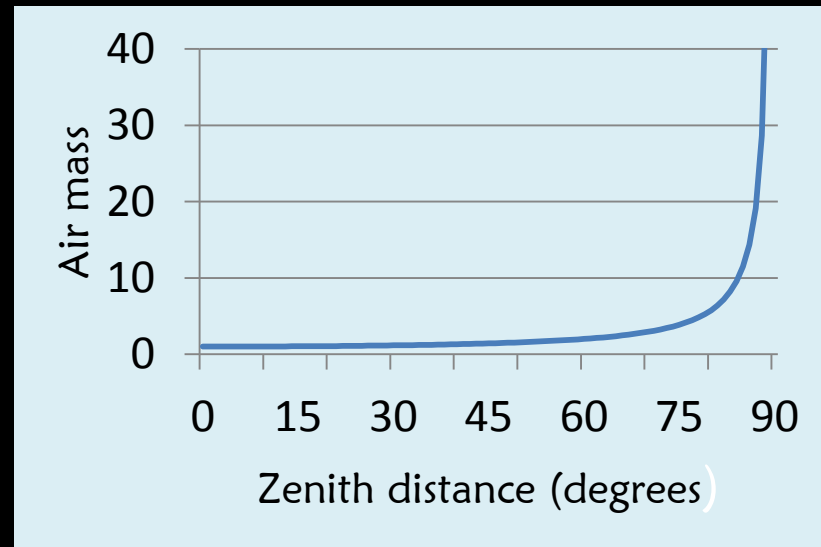
scattering $\propto \frac{1}{\lambda^4}$



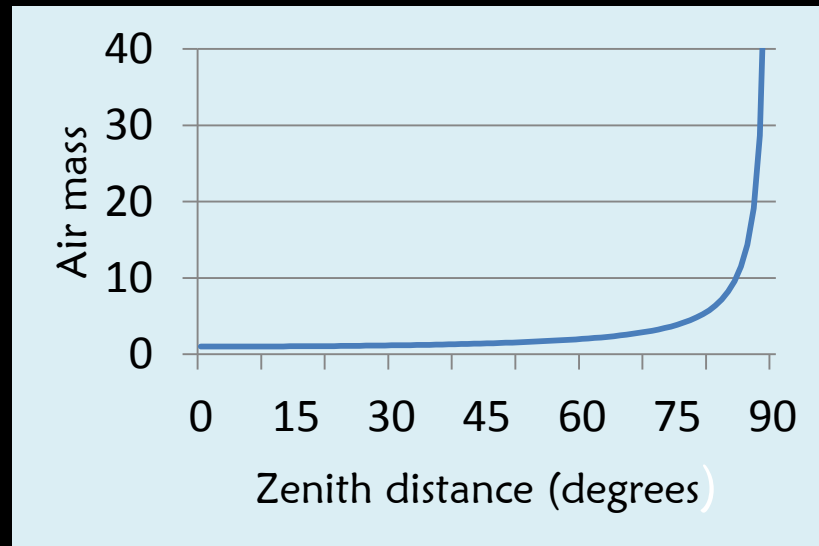
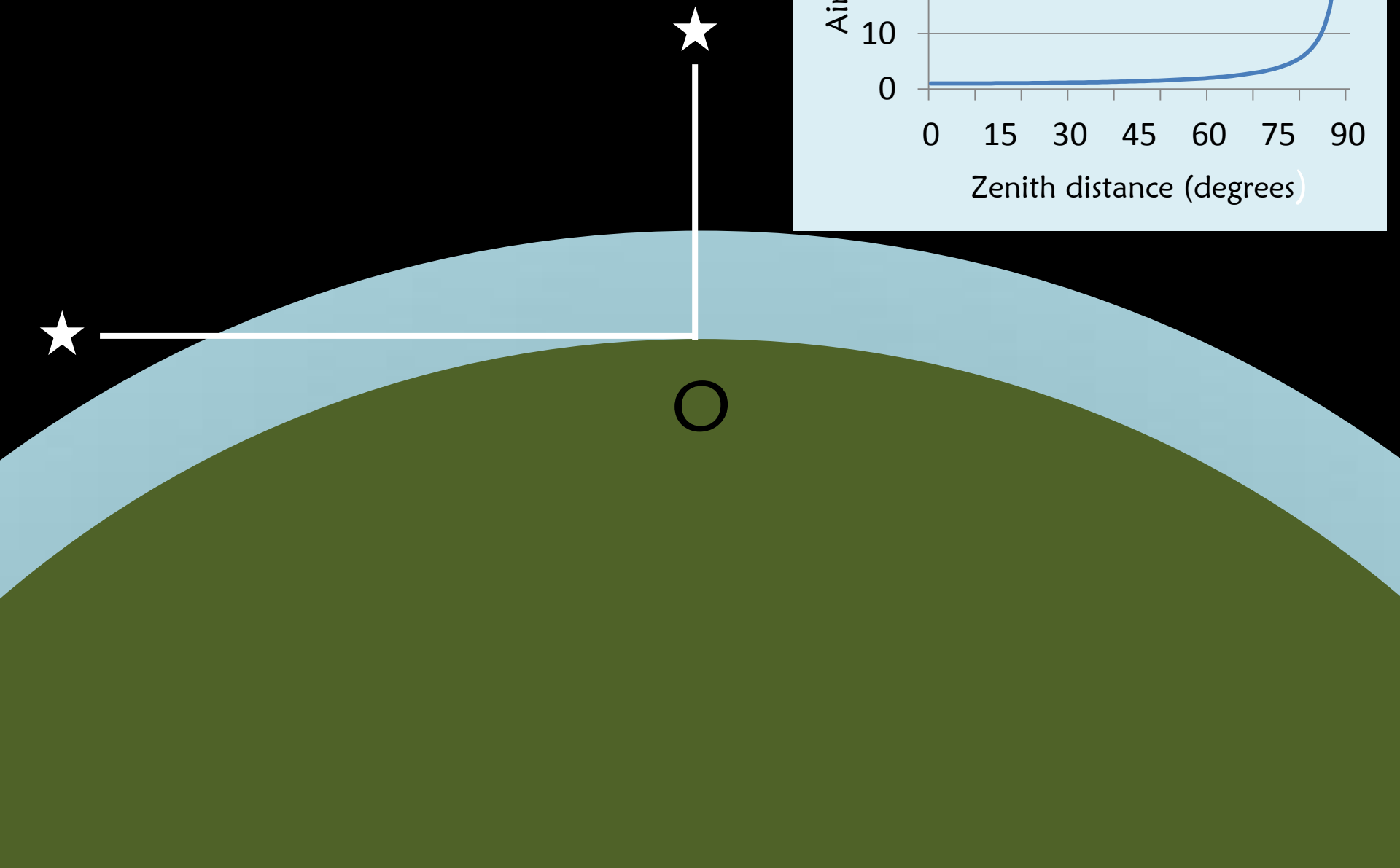




AIR MASS



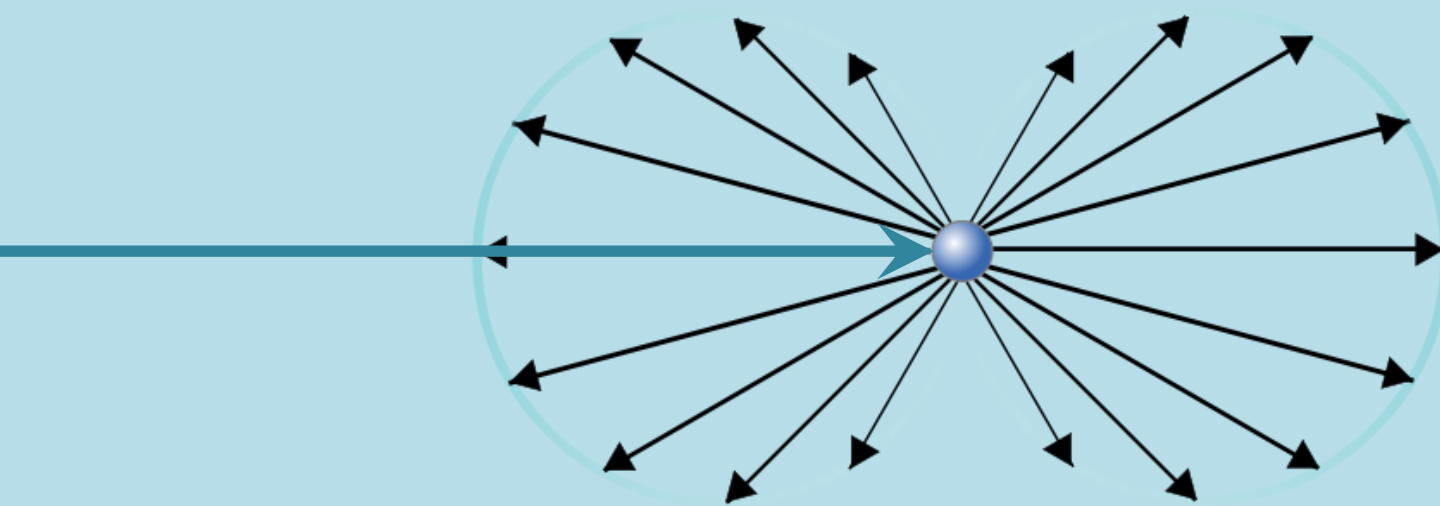
AIR MASS



AIR MASS





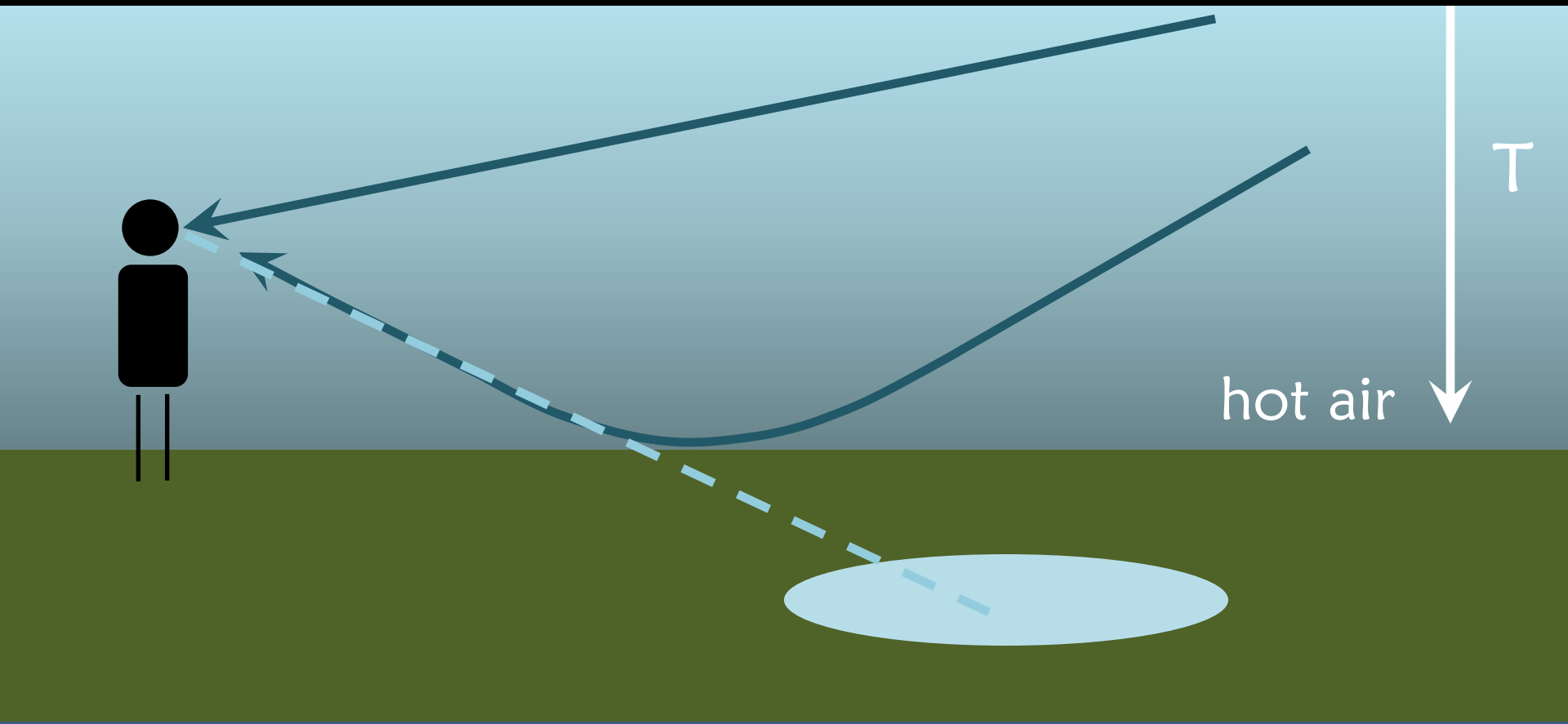
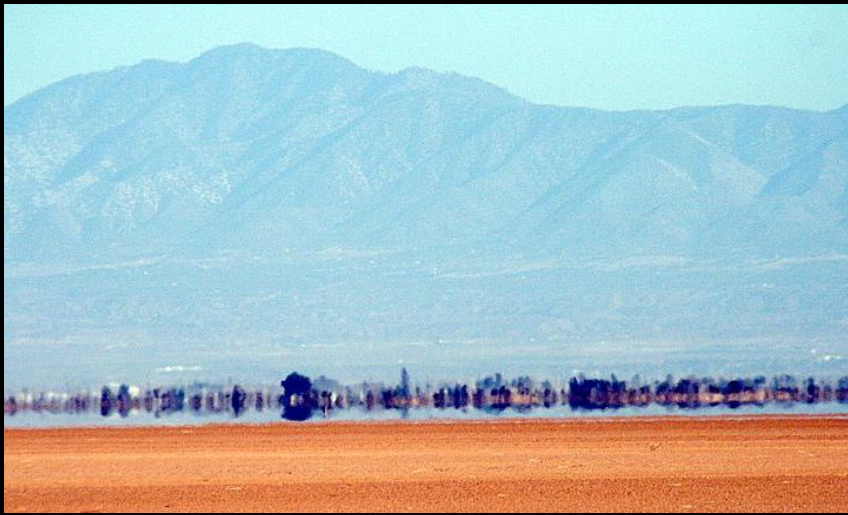


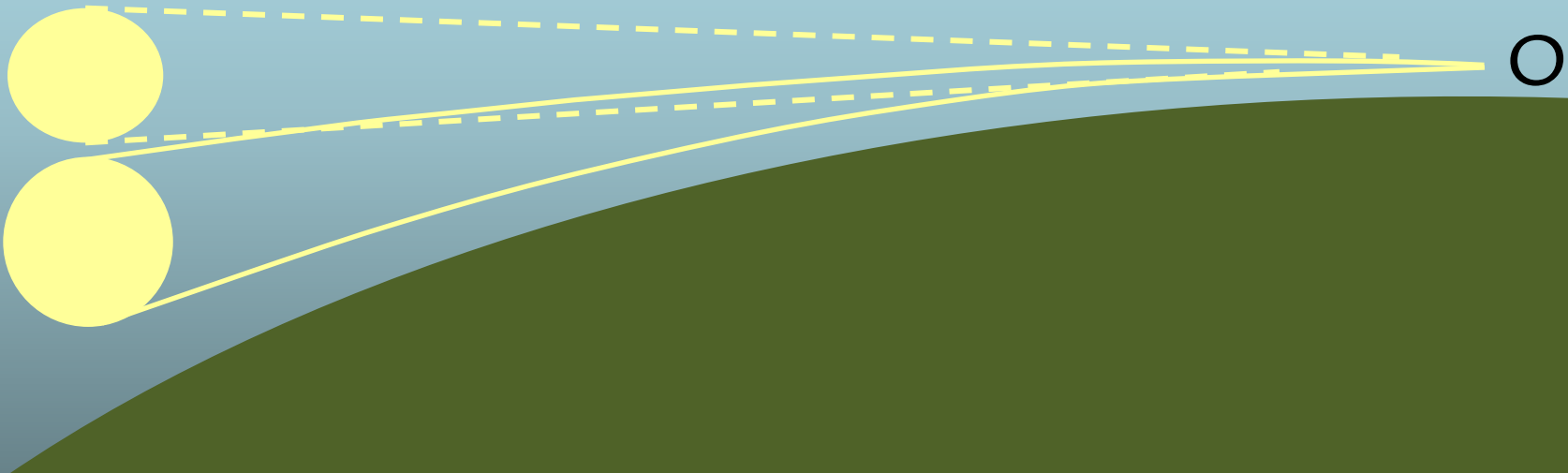


NASA



Tomas Trizicky



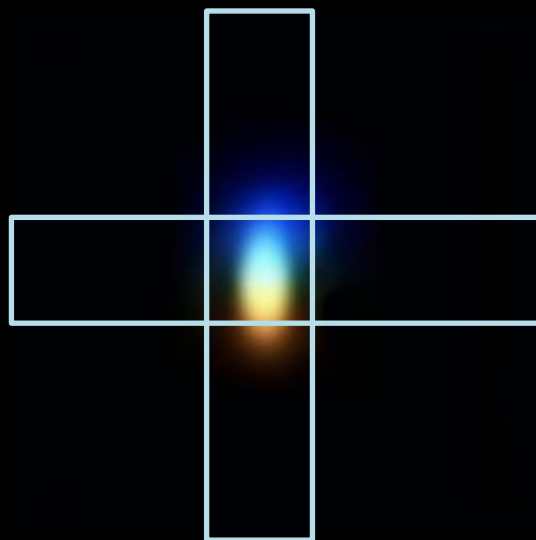
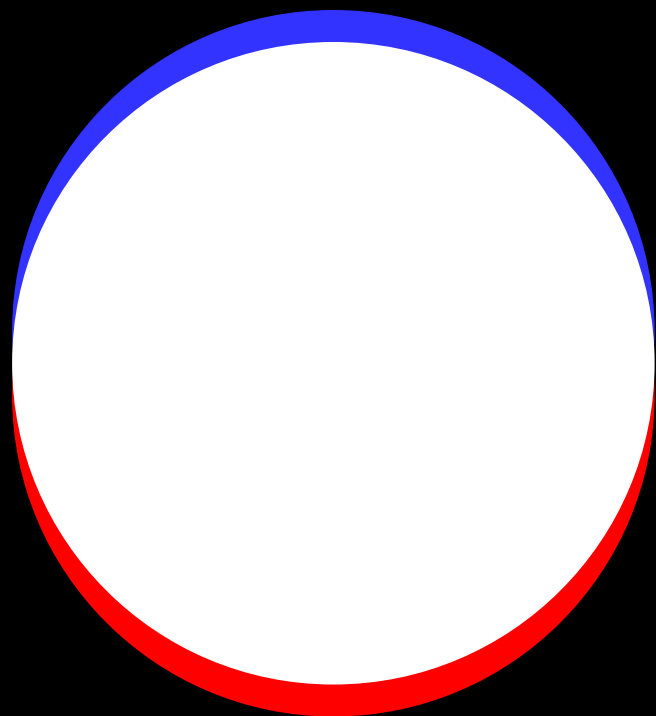
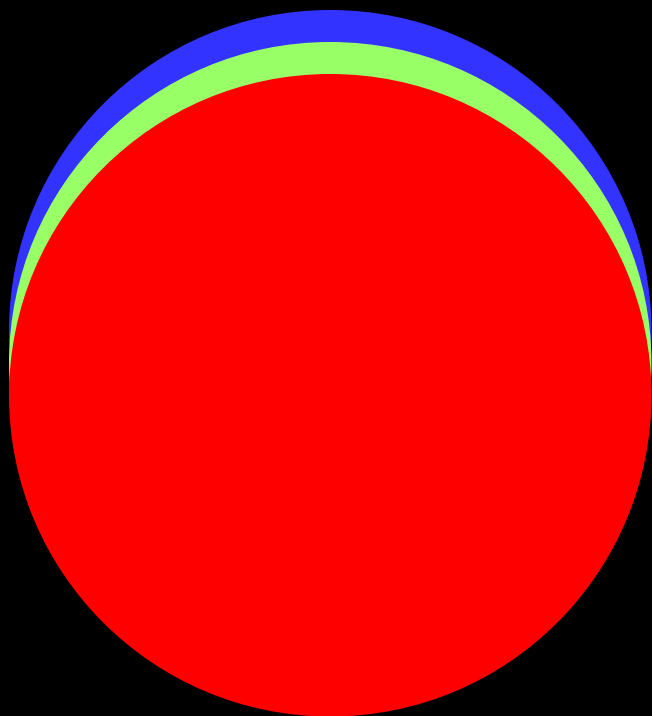




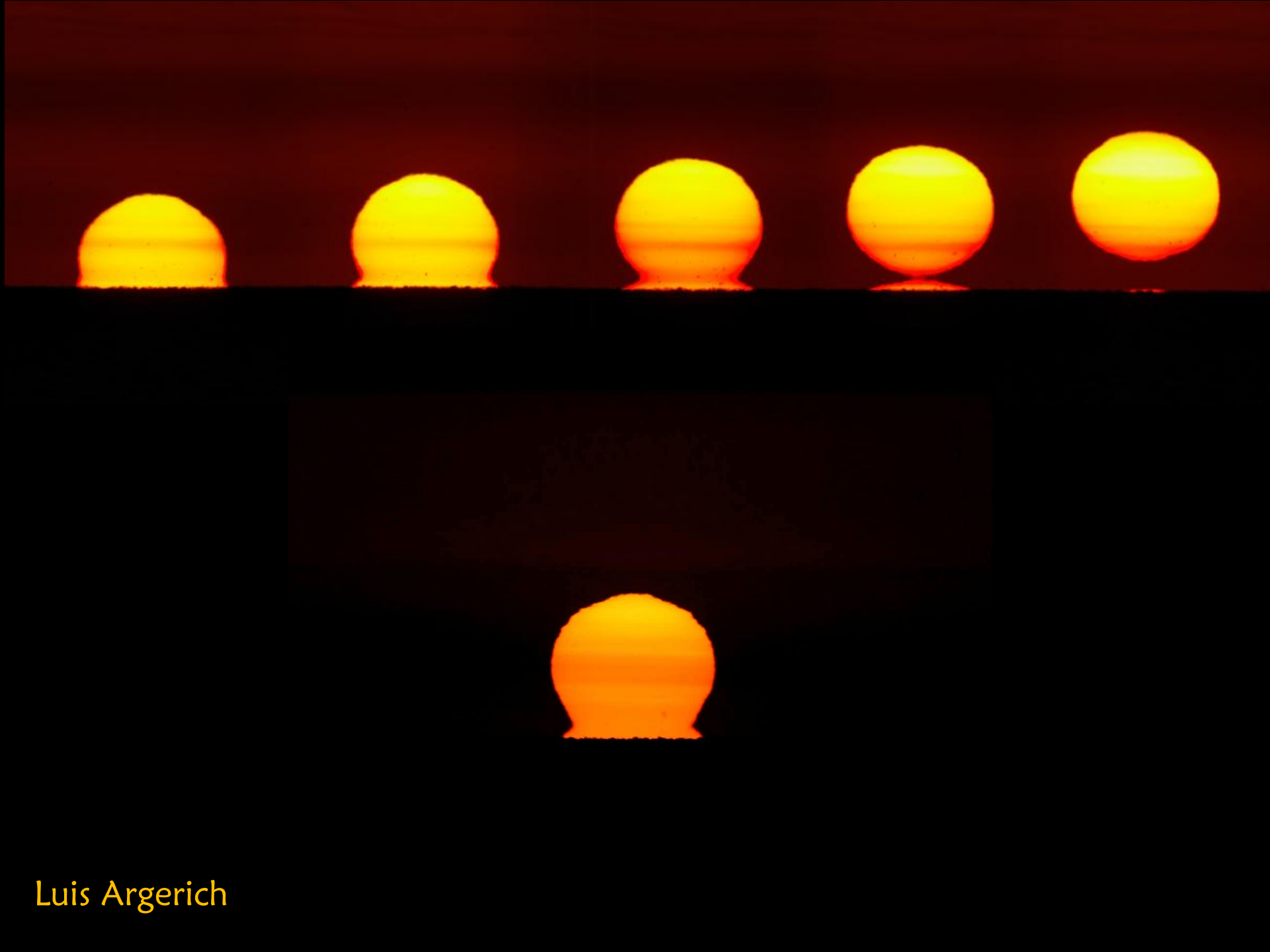
NASA



André Kuipers / ESA / NASA

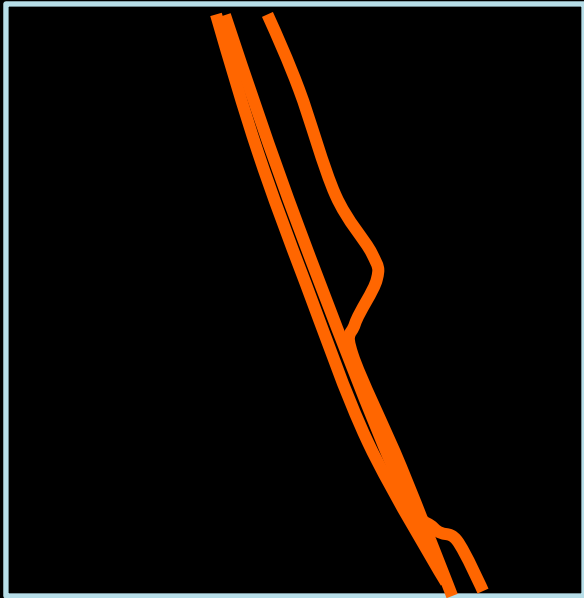


Martin Lewis



Luis Argerich

height

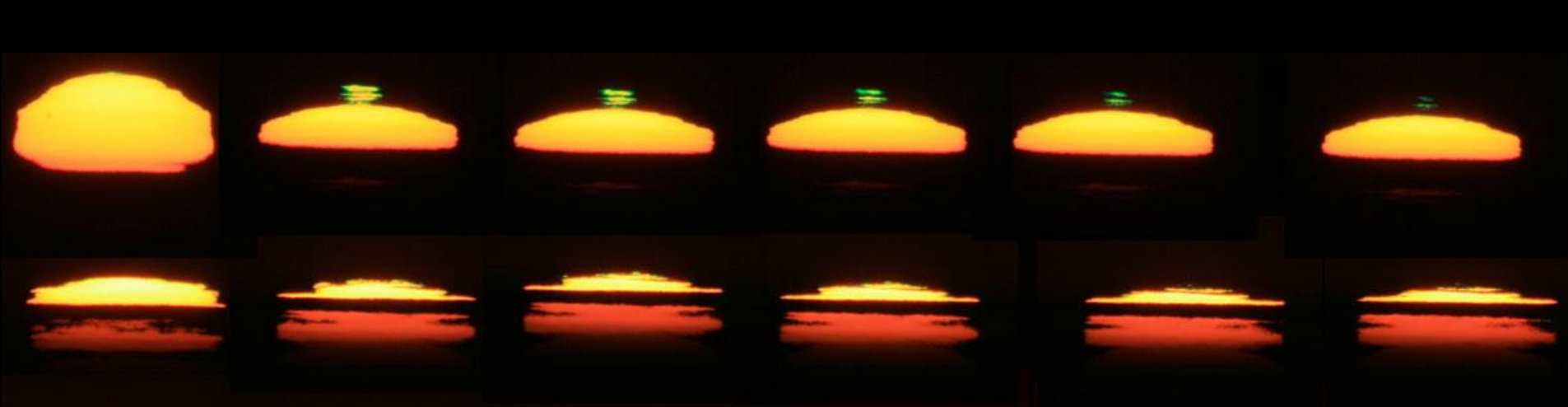


temperature





Danilo Pivato



Mia Zinkova

horizon

day

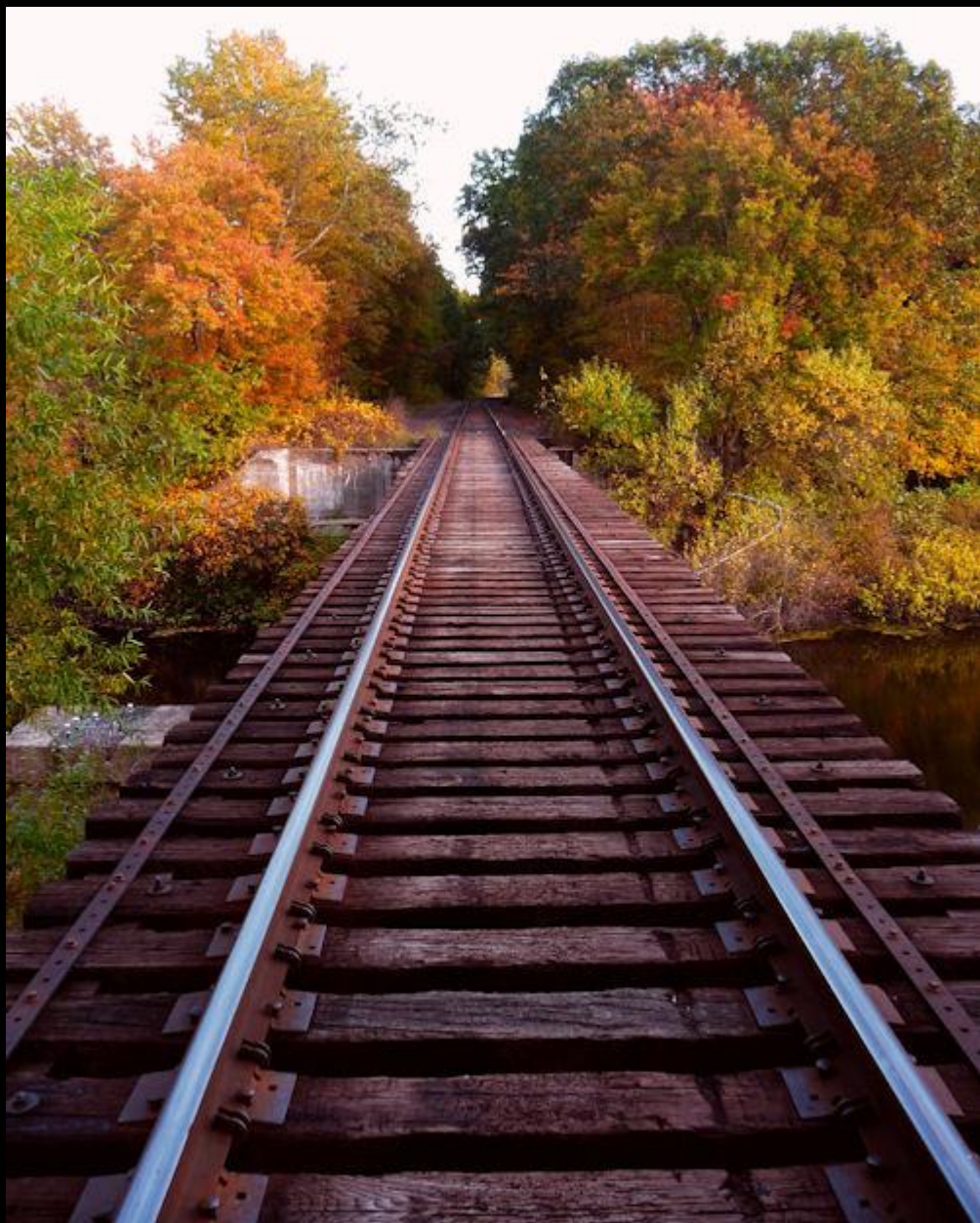




Andy Fabian



Richard Fleet





Bob King







Nikolakakos Panagiotis

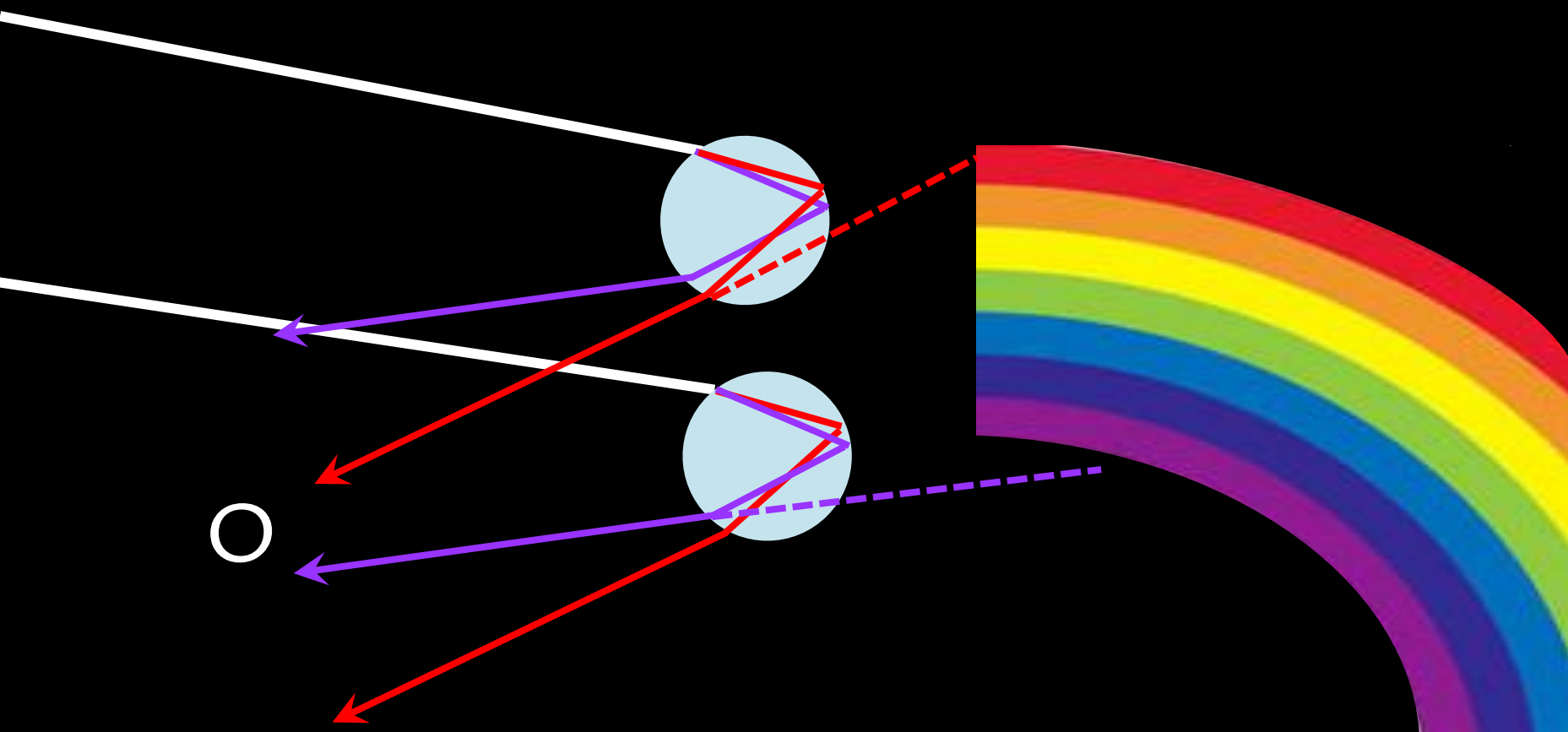
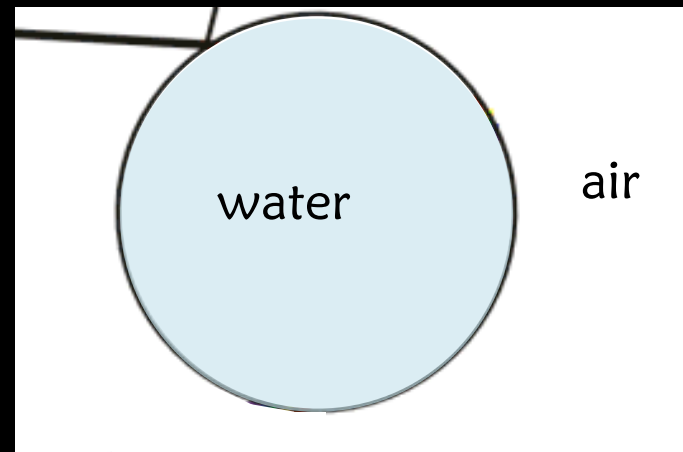




Tony Cook



Joel Satore





Ron Suter

Dave Lynch



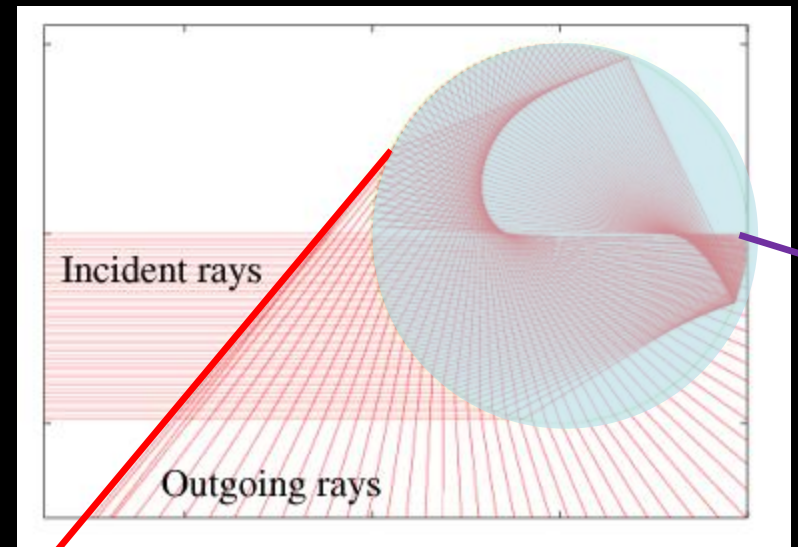
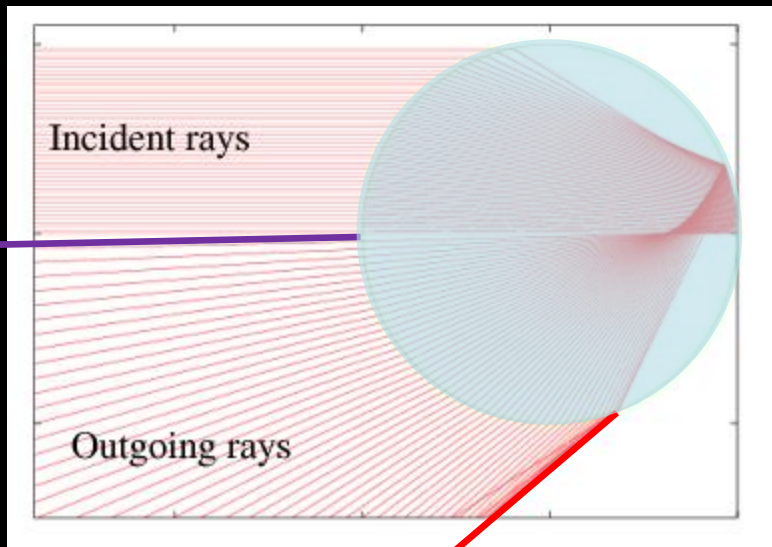
Ern Mainka



Phil Thomson



Rich Reid

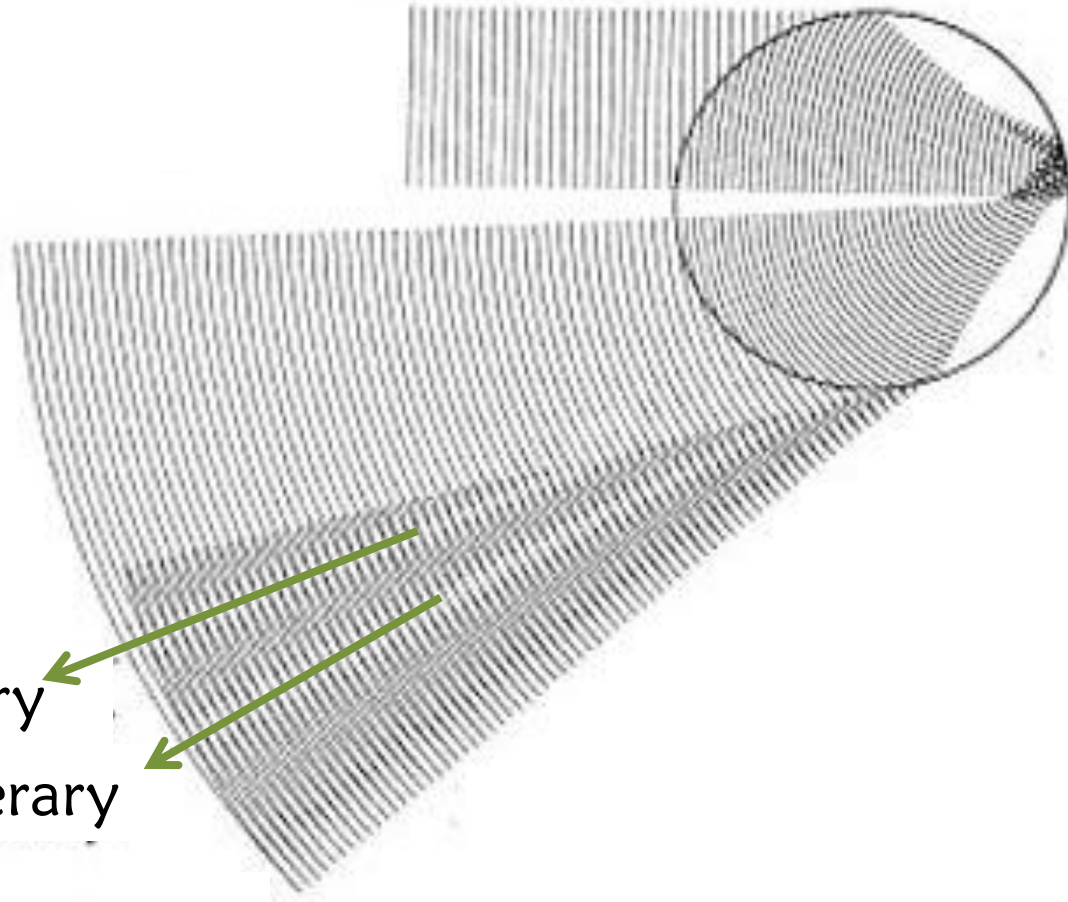




David Modricker

2nd supernumerary

1st supernumerary





Phil Thomson



Ina Rendtel





Michael Ellestad

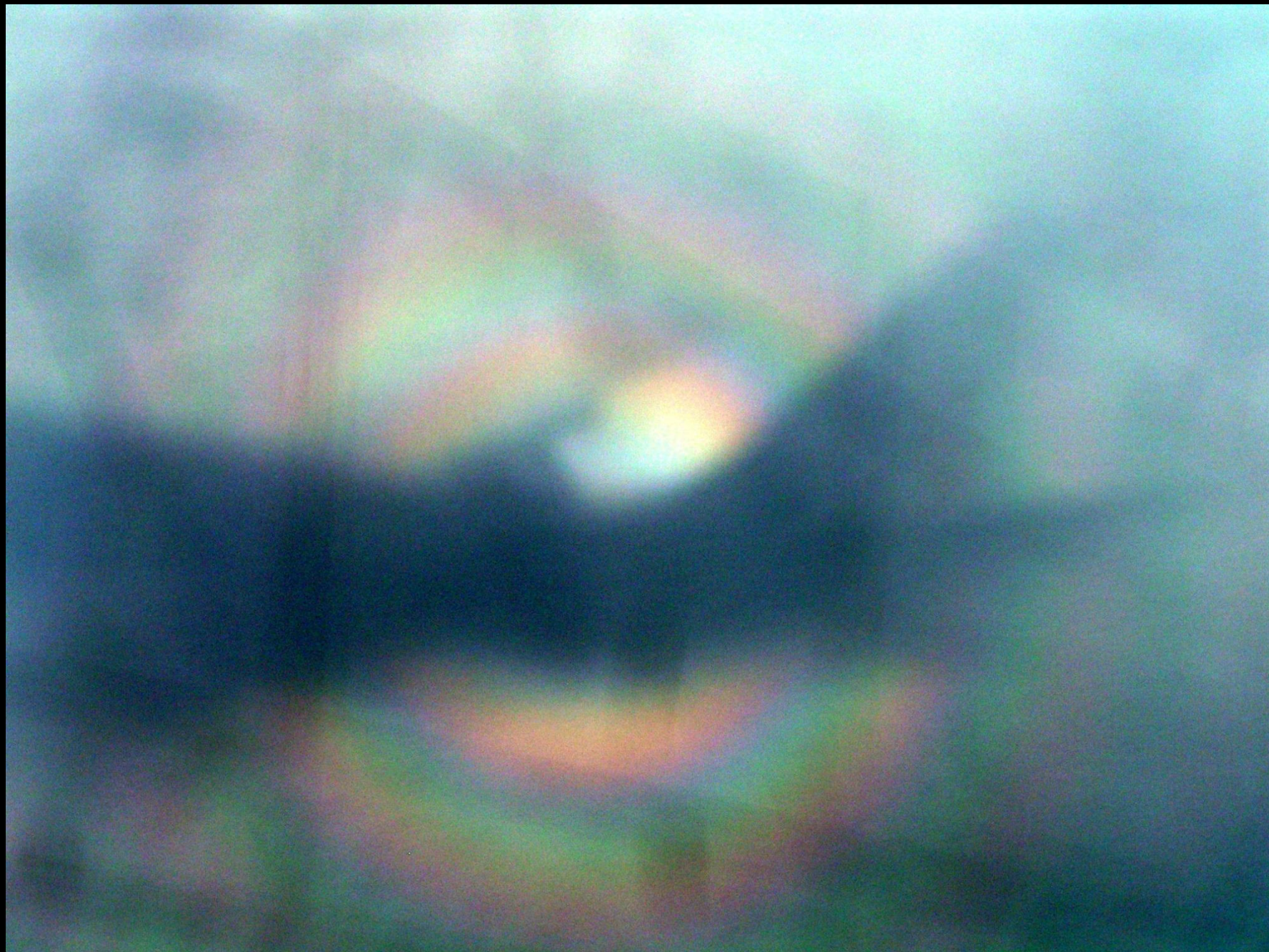


Reinhard Nitze



Barry Starling



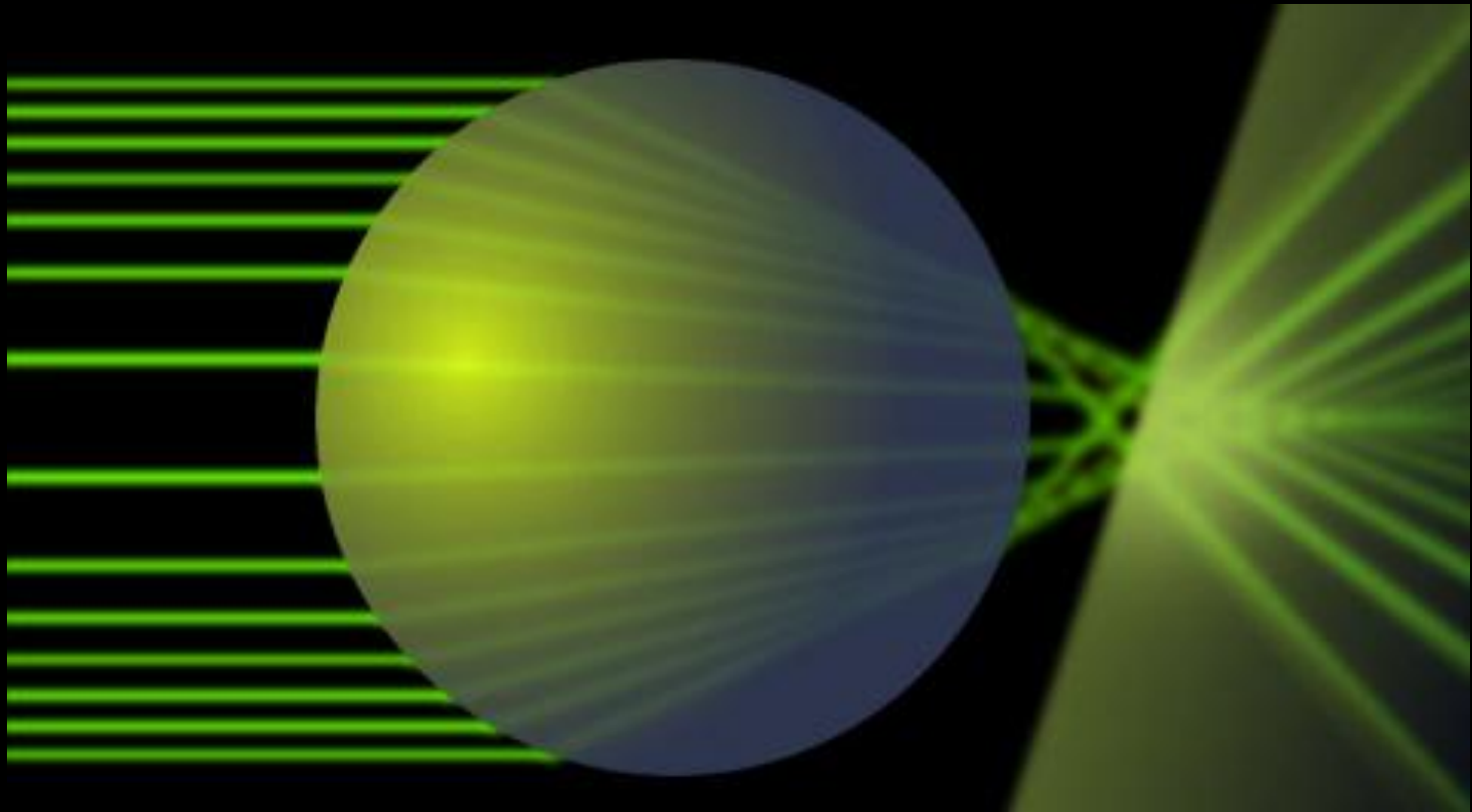




Grzegorz Momot



Laurent Laveder

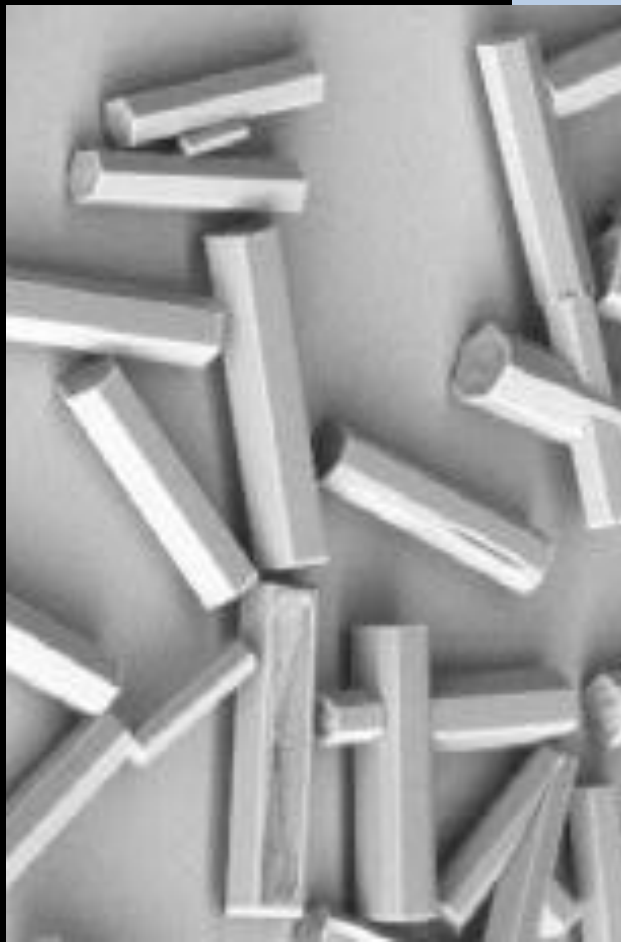
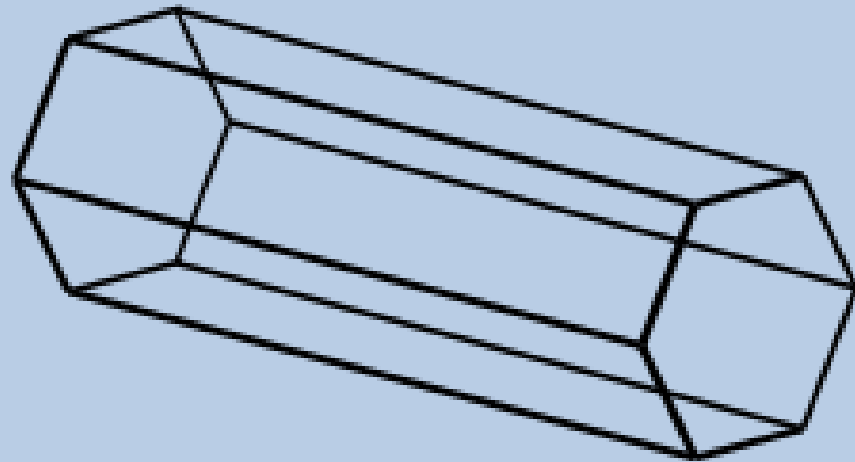
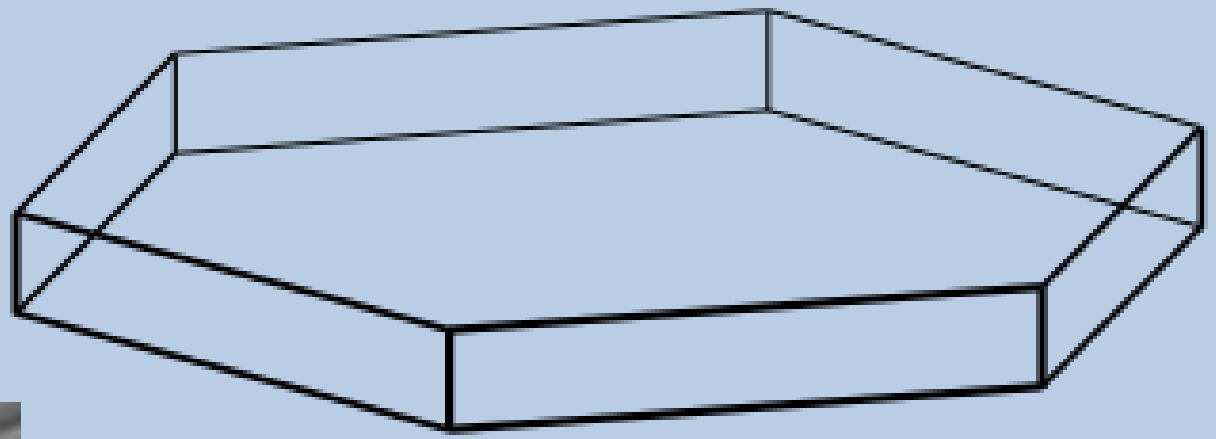


Les Cowley



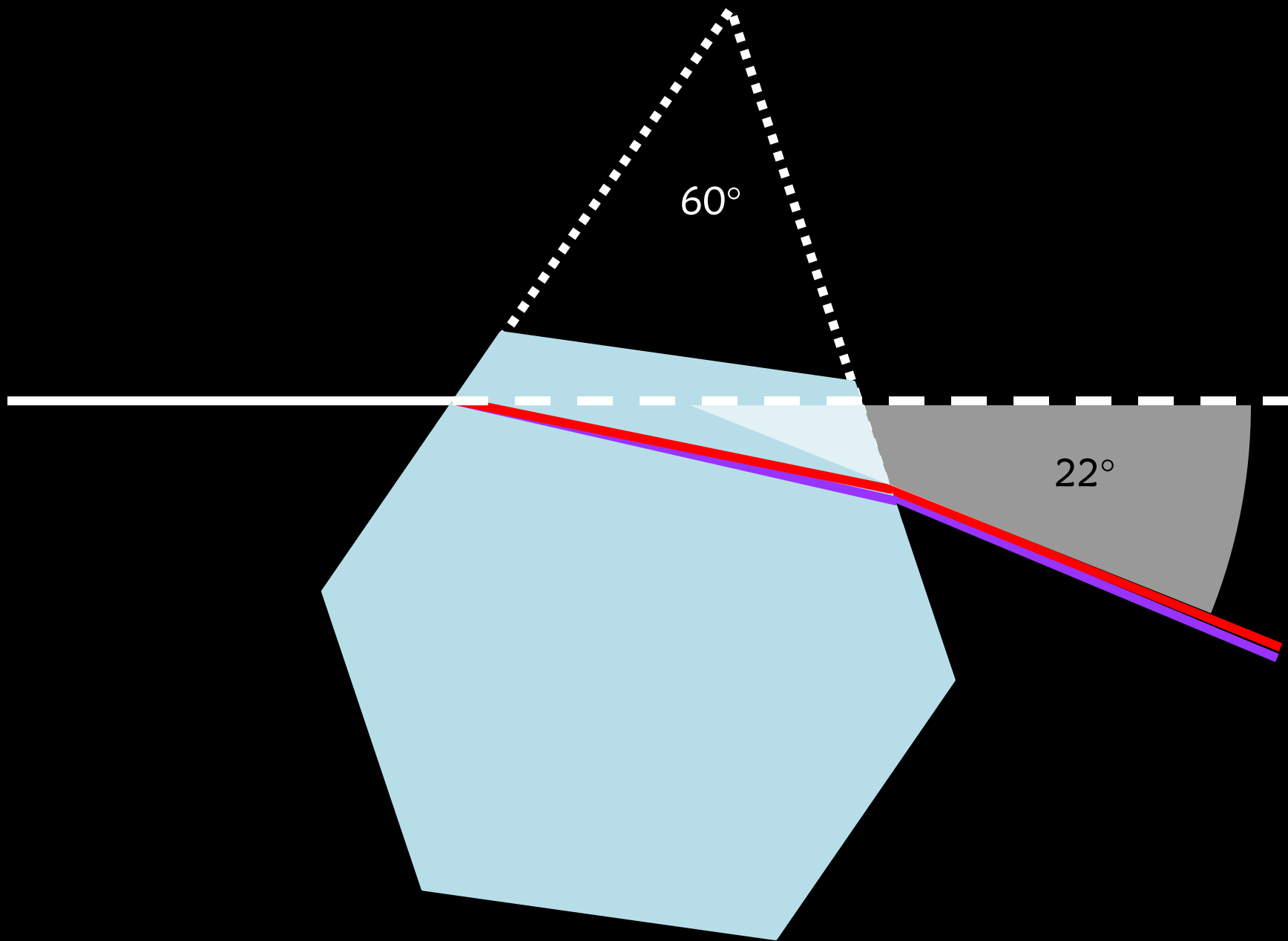


NASA



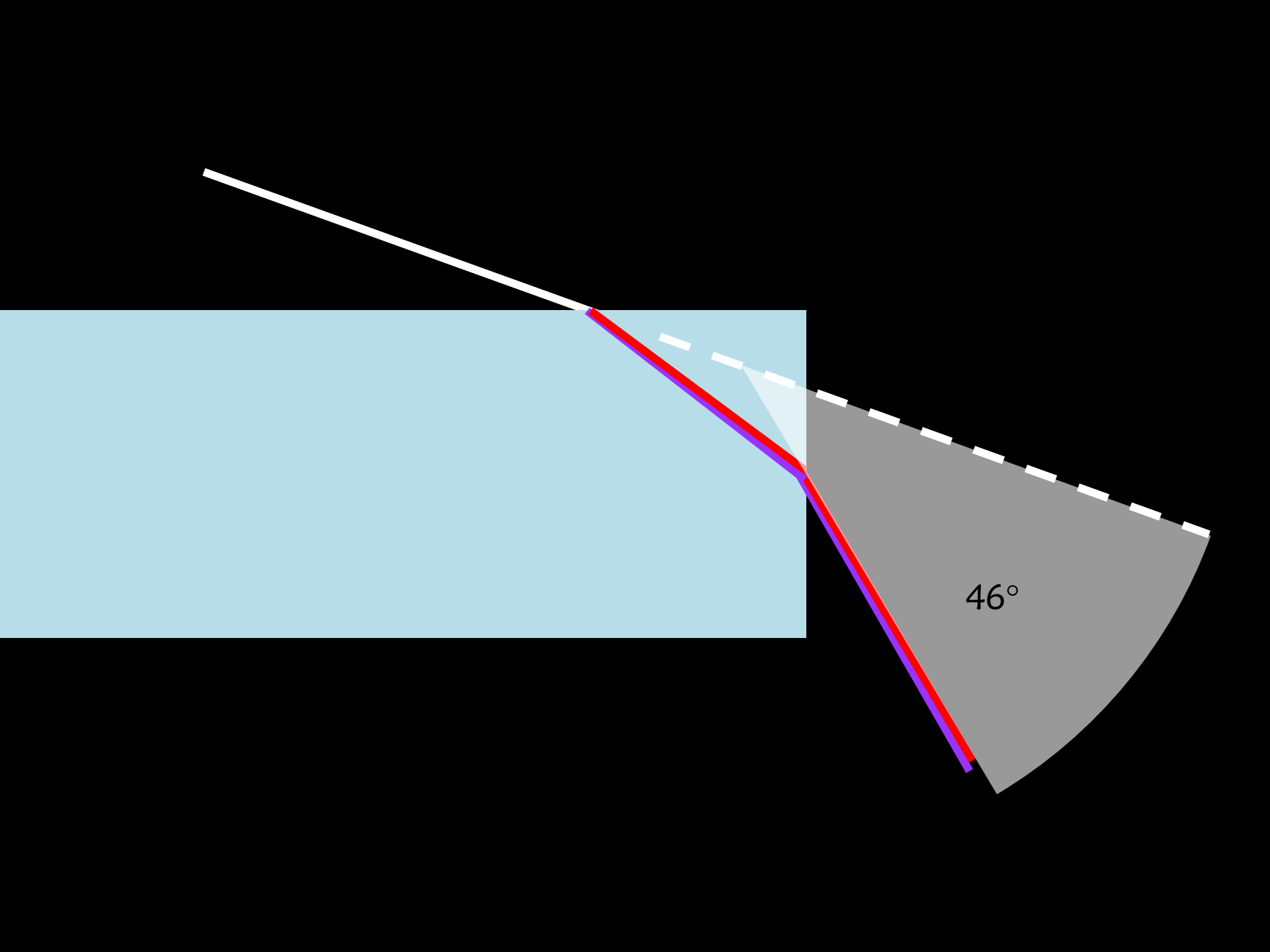


Vydor



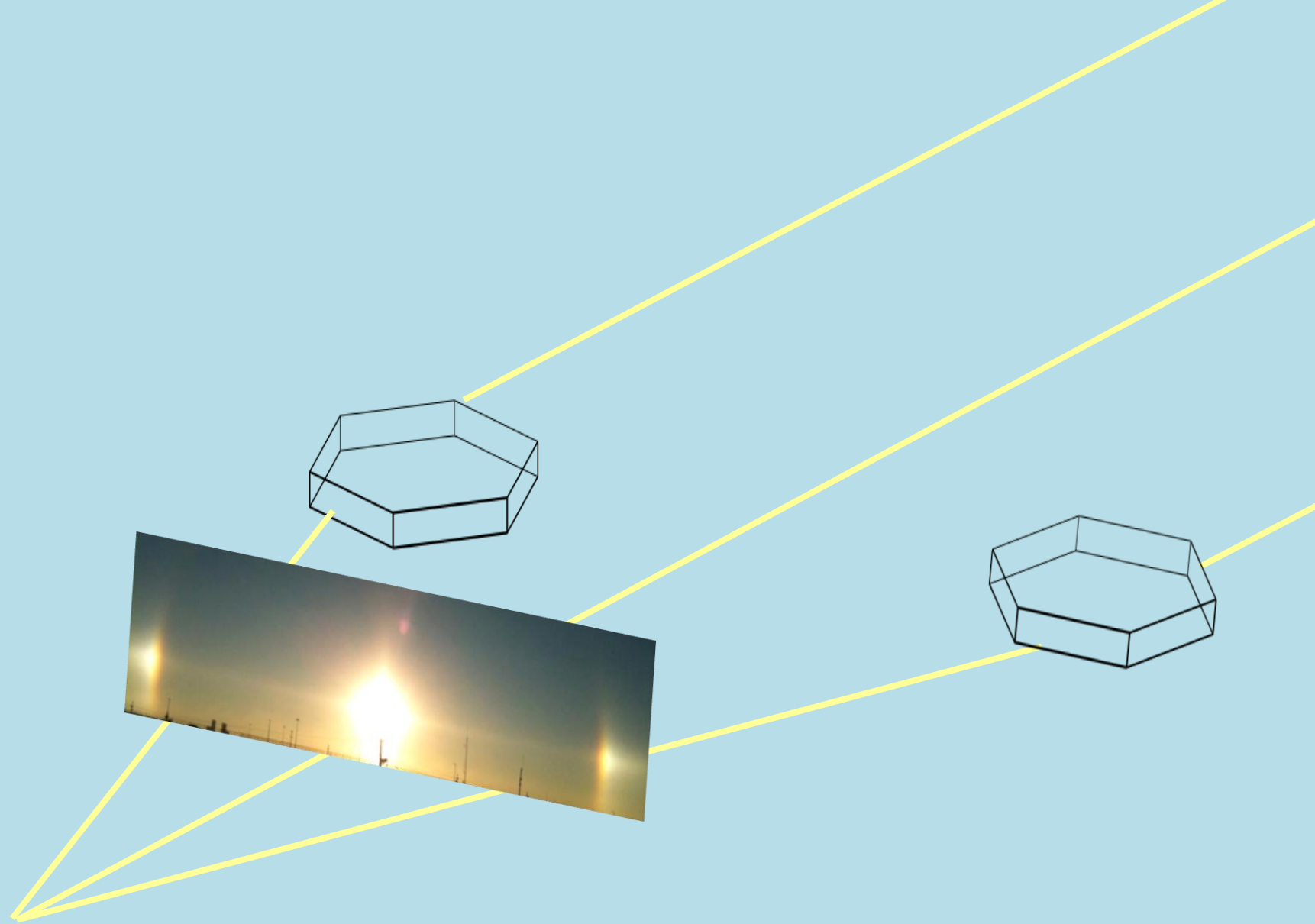


Dani Caxete





Steve Kluge





Jakob Kristoferitsch



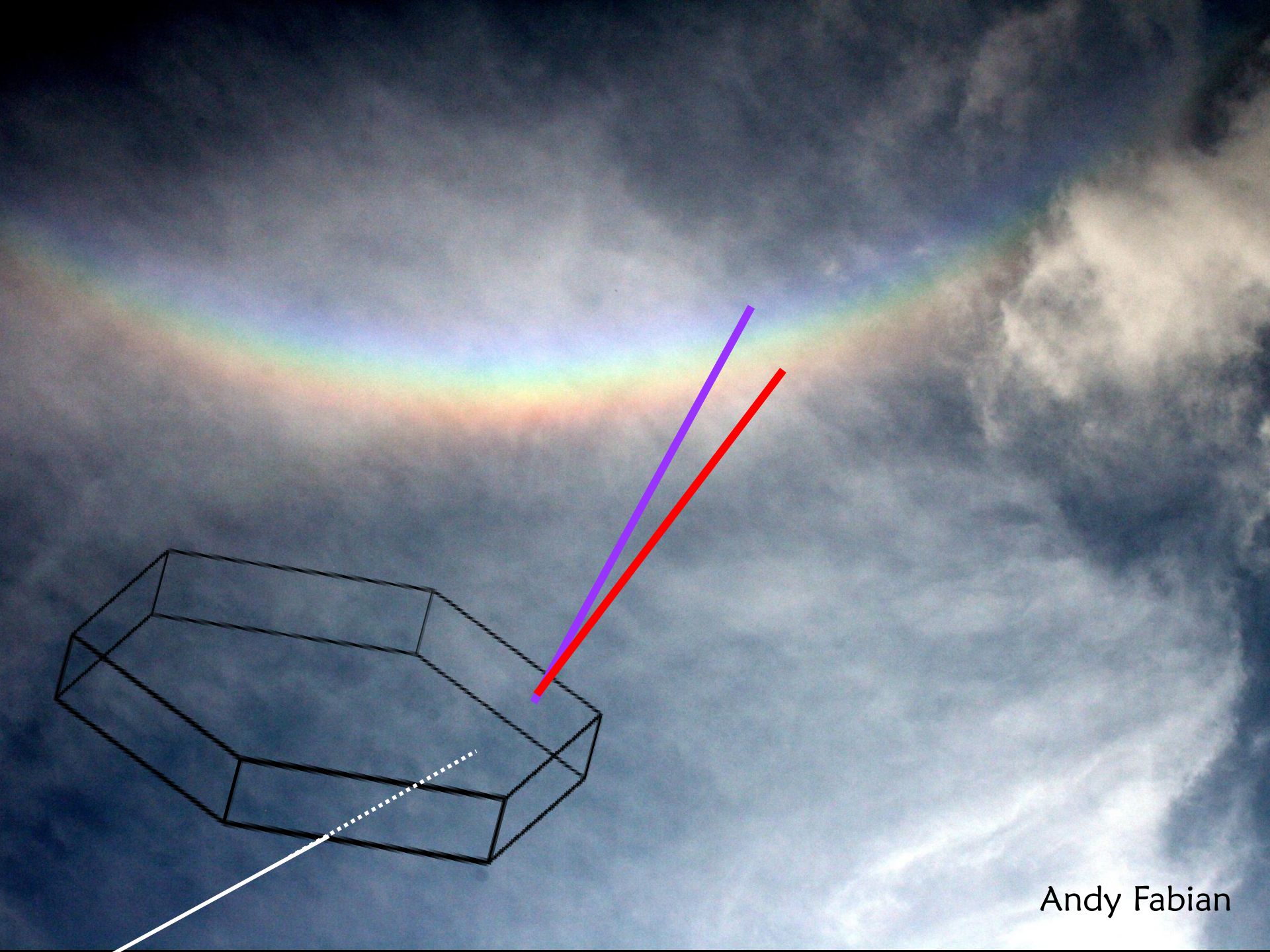
Barry Starling



Lode Verhelst



Peter Rosen



Andy Fabian



Lisa Gonnelli



circumzenithal arc

46° arc

tangent arc

22° arc

sun dogs

parhelic circle

David Hathaway





Rick Stankiewicz



Walter Tape



MERRY CHRISTMAS!