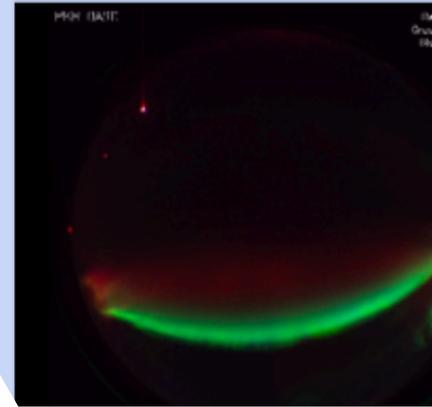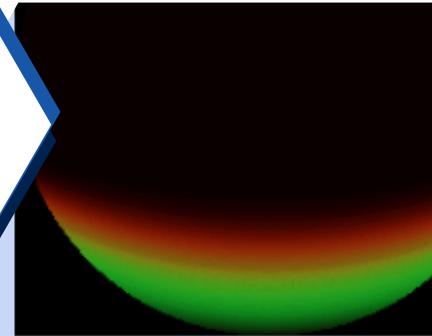**2025**
**Tomorrow's Innovator Award**
BEST GRADUATE/POST-GRAD
STUDENT INNOVATION DISCLOSURE

# Virtual Aurora Camera Model & Code

*Innovator:*

Cameron Westerlund

> Developed by Cameron Westerlund, PhD Student in Space Physics advised by Dr. Don Hampton.

> Created a model that accurately images transparent volumes that emit light, like the aurora, by assigning points in a virtual sky to the pixels of a virtual camera.

> After populating a virtual sky with emissions based on user prescribed conditions, this model generates synthetic images of the aurora in multiple wavelengths.

> When coupled together with other models, this model helps answer open questions about scientific techniques that explore the aurora.