



meeting link

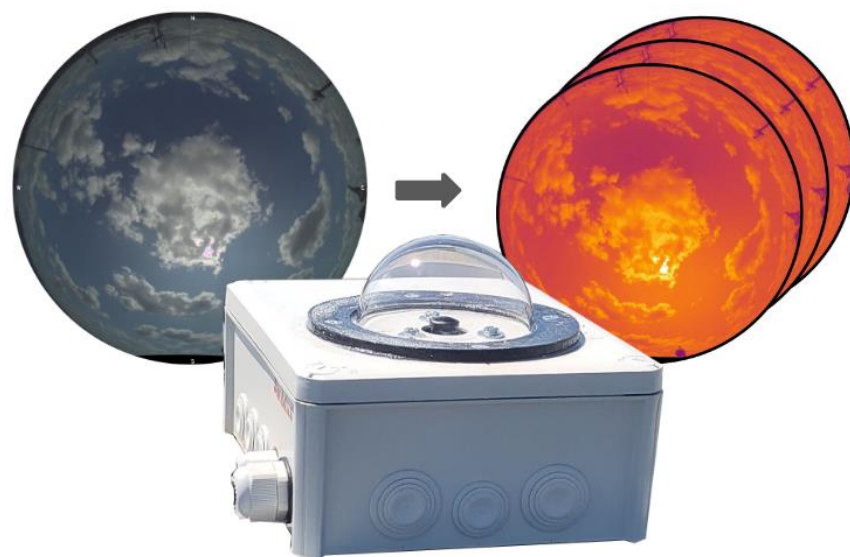
# EARTH SYSTEMS SEMINARS



## ALL-SKY IMAGERS: A CAMERA AS A RADIANCE SENSOR

WHAT'S THIS ABOUT?

Standard solar sensors provide a single irradiance value. This ignores the complexity of solar radiation reaching Earth from the sky. To improve solar energy modeling, we need to map the entire sky in more detail. All-Sky Imagers (ASIs) offer a solution, but a photograph is not a scientific measurement. This talk introduces ASI technology from the perspective of solar energy. We cover the challenge of converting raw pixels into radiance using a low-cost Raspberry Pi prototype. The software pipeline successfully calibrates the sensor; however, the prototype's enclosure faces challenges from thermal instability and dew. Finally, we outline applications ranging from solar forecasting to atmospheric science.



**Valentin Bauer**  
(MINES Paris)

**November 26**  
**Wednesday: 13h00**

in IDL room 1.1.37 (C1) or online  
Teams Meeting ID: 347 677 275 084 0  
Passcode: HS6Yg2Cz



calendar link



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