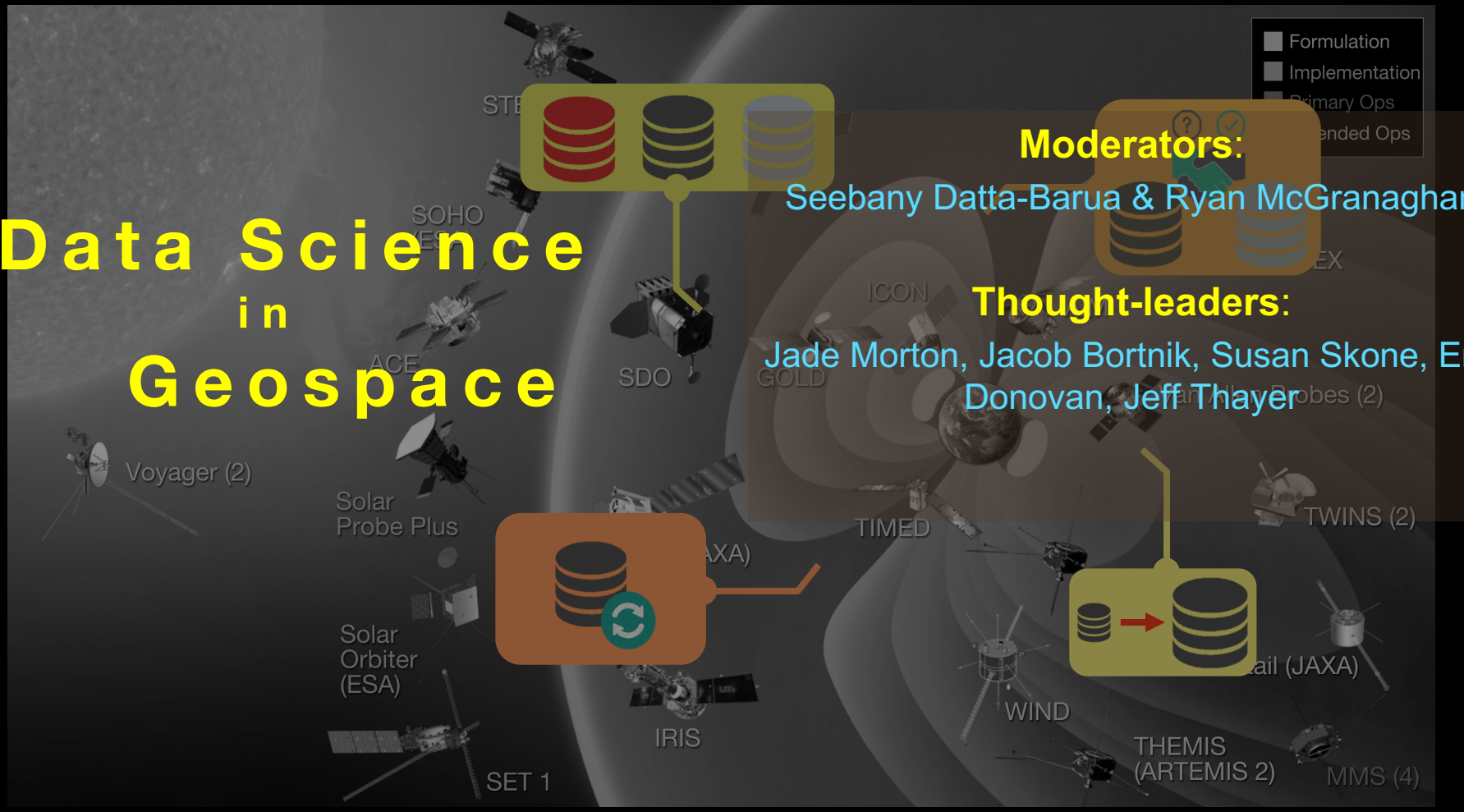


Data Science in Geospace

Moderators:

Seebany Datta-Barua & Ryan McGranaghan

Thought-leaders:

Jade Morton, Jacob Bortnik, Susan Skone, Eric Donovan, Jeff Thayer

Blueprint

The challenge

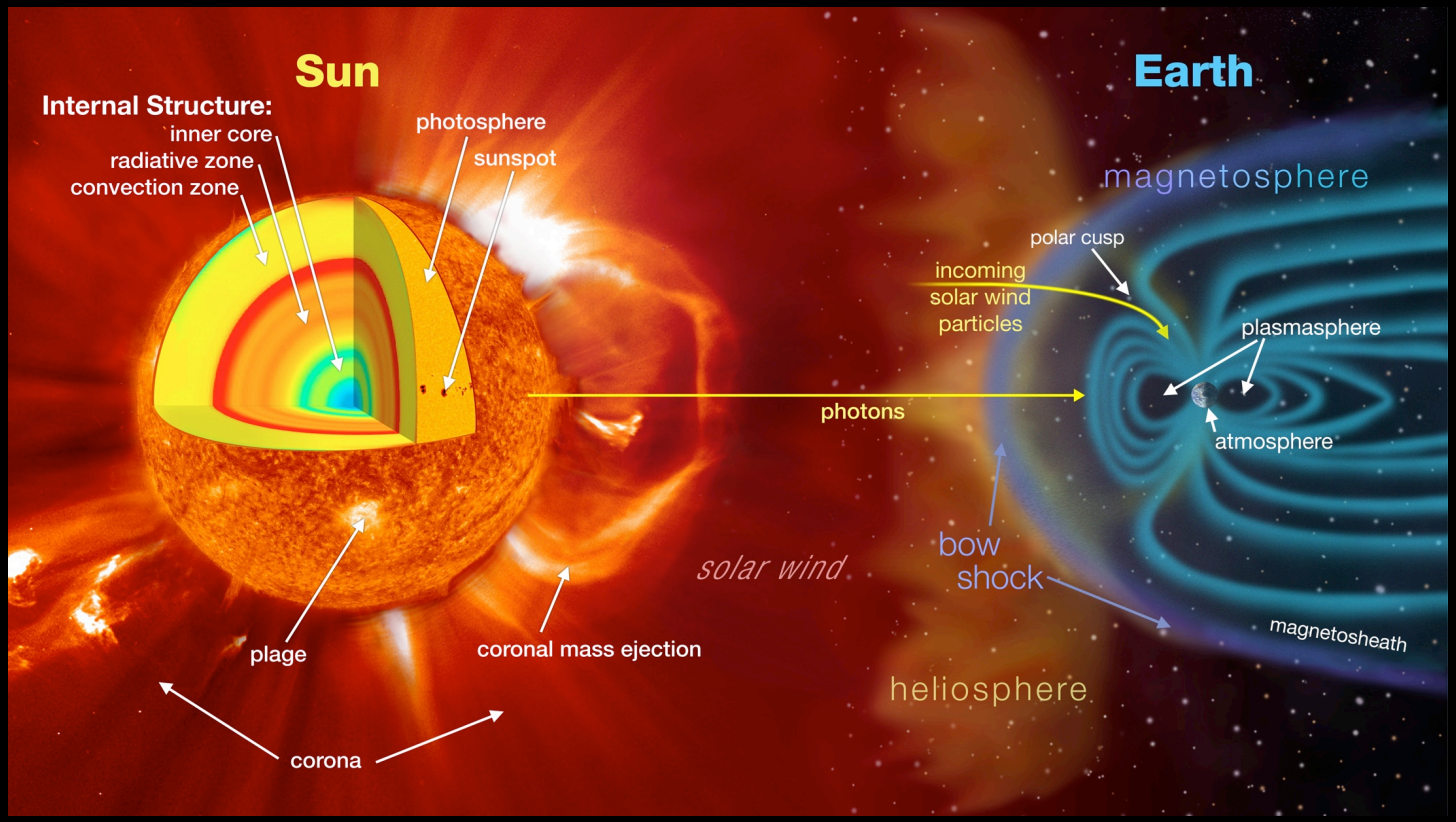
The what and why of data science

Agenda

Background:

Heliophysics & Space weather

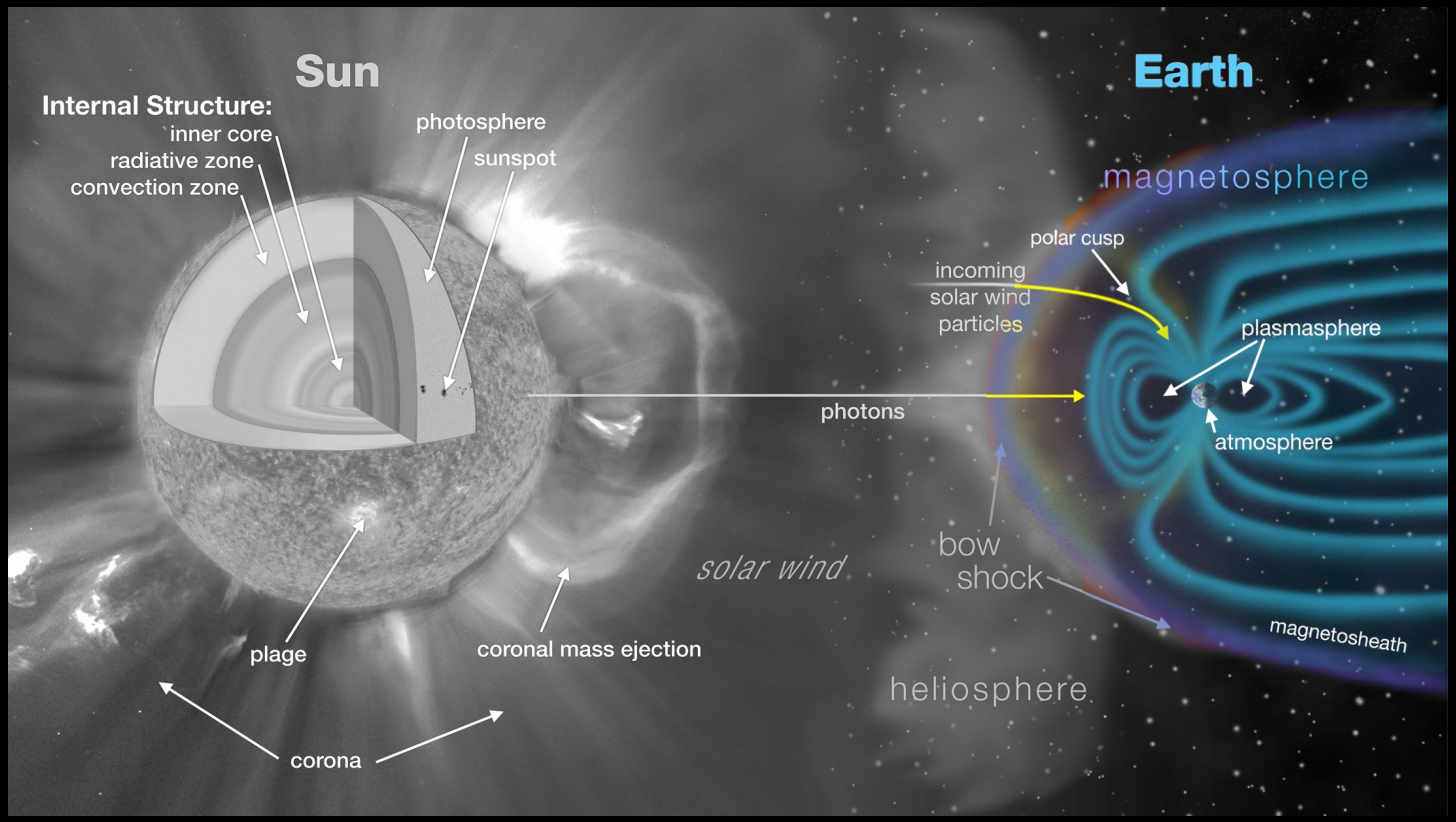
The challenge - Why data science? - Agenda



Background:

Heliophysics & Space weather

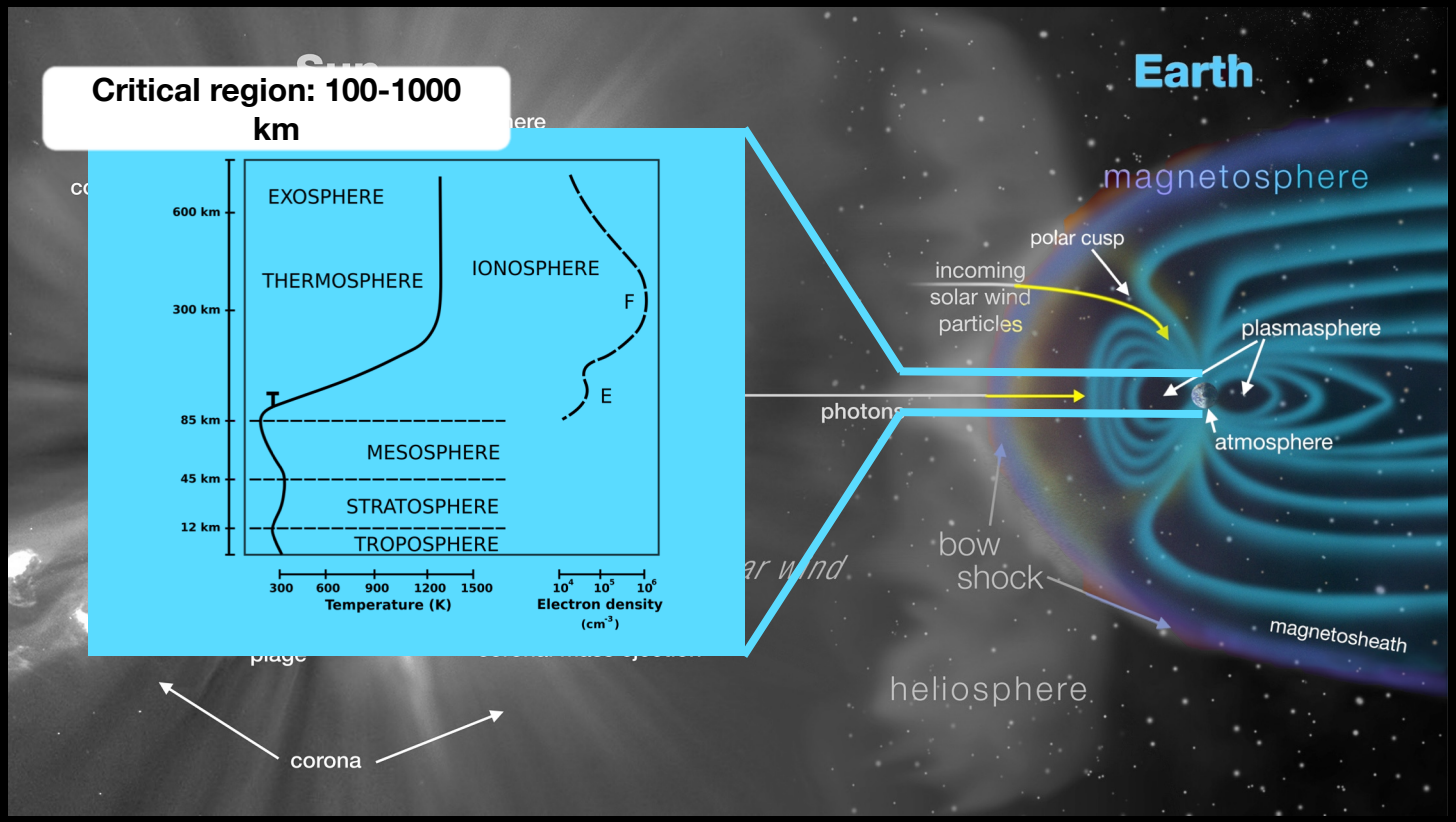
The challenge - Why data science? - Agenda



Background:

Heliophysics & Space weather

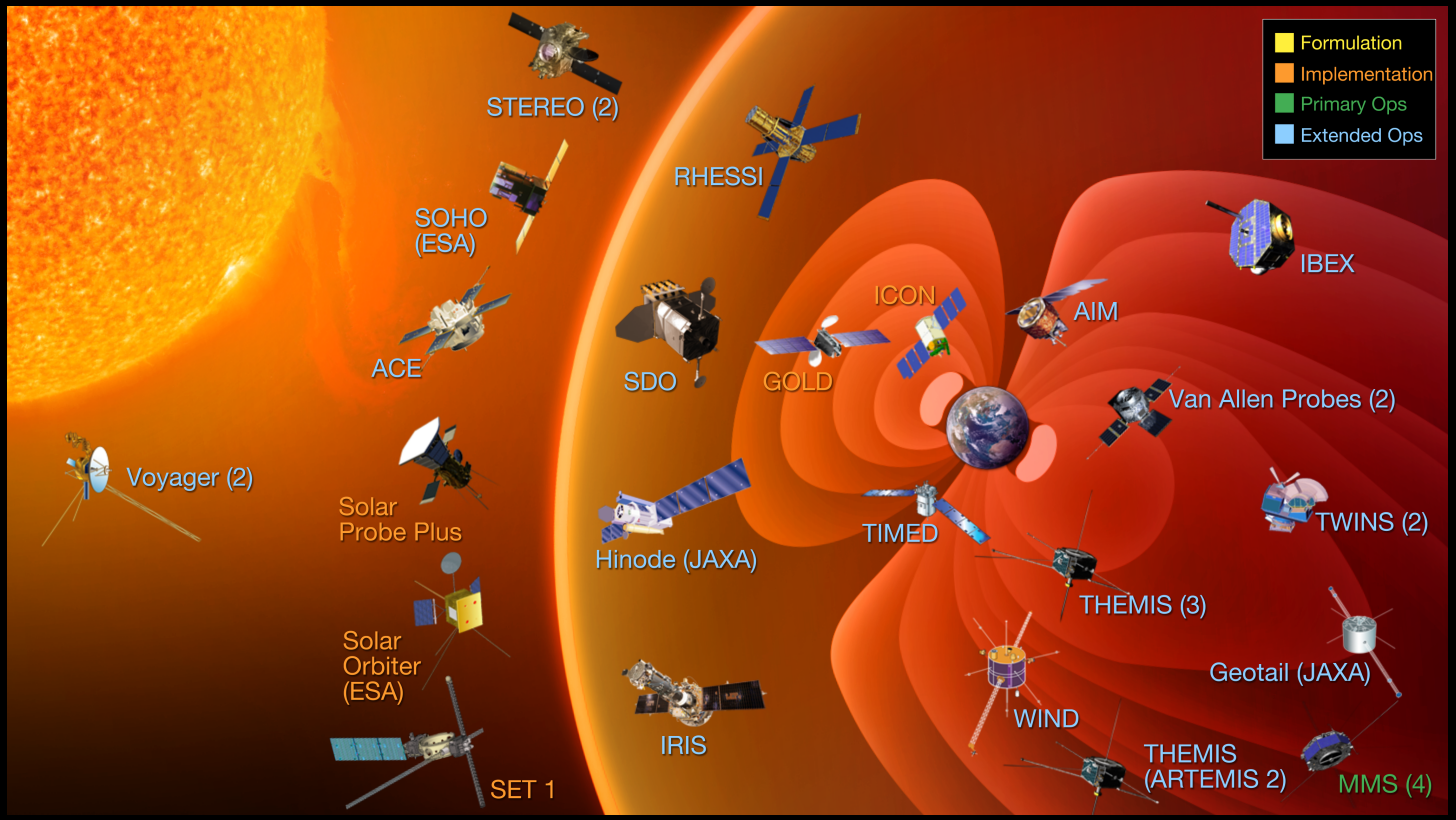
The challenge - Why data science? - Agenda



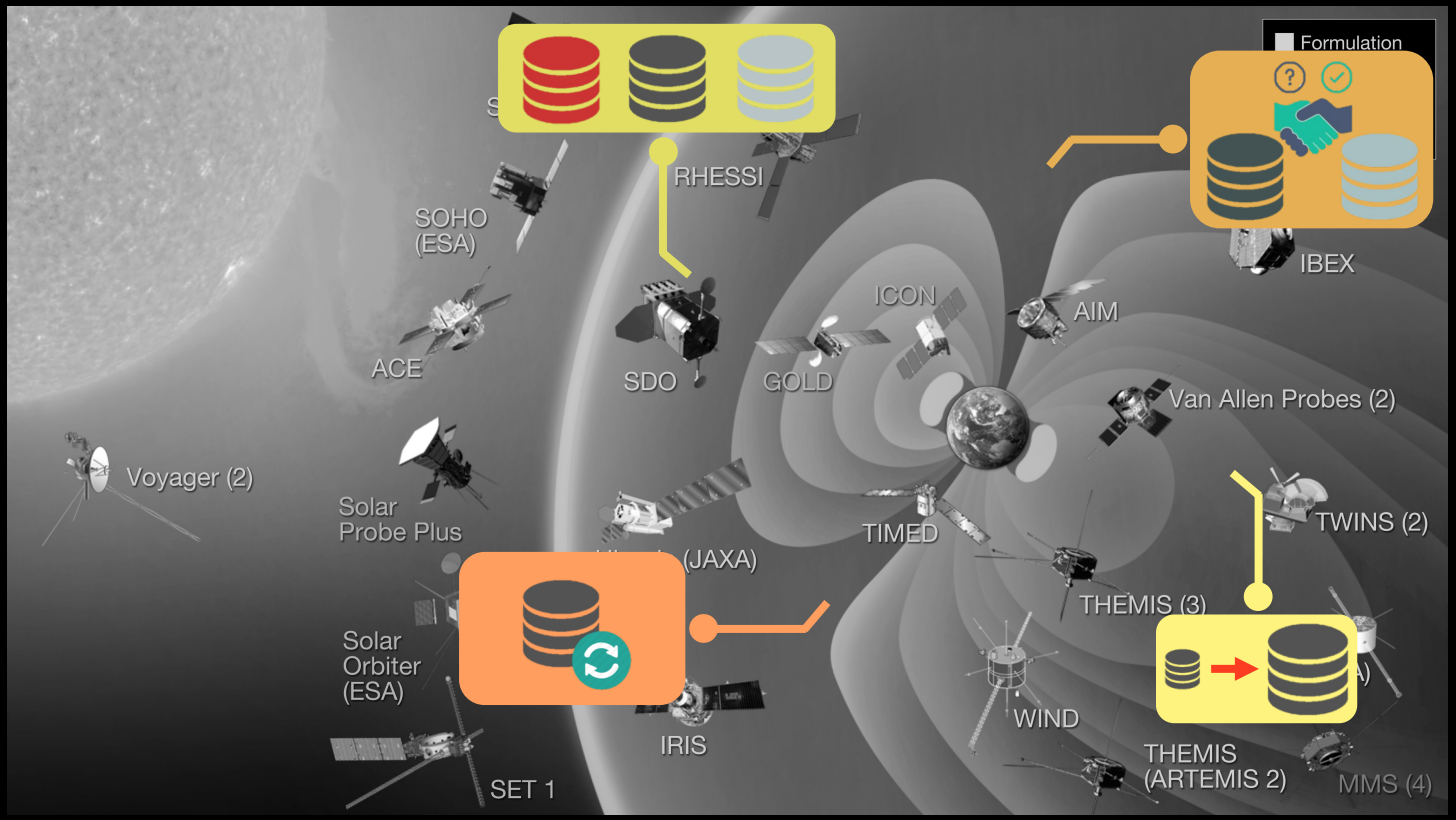
Background:

Heliophysics & Space weather

The challenge - Why data science? - Agenda



Background:
Data science



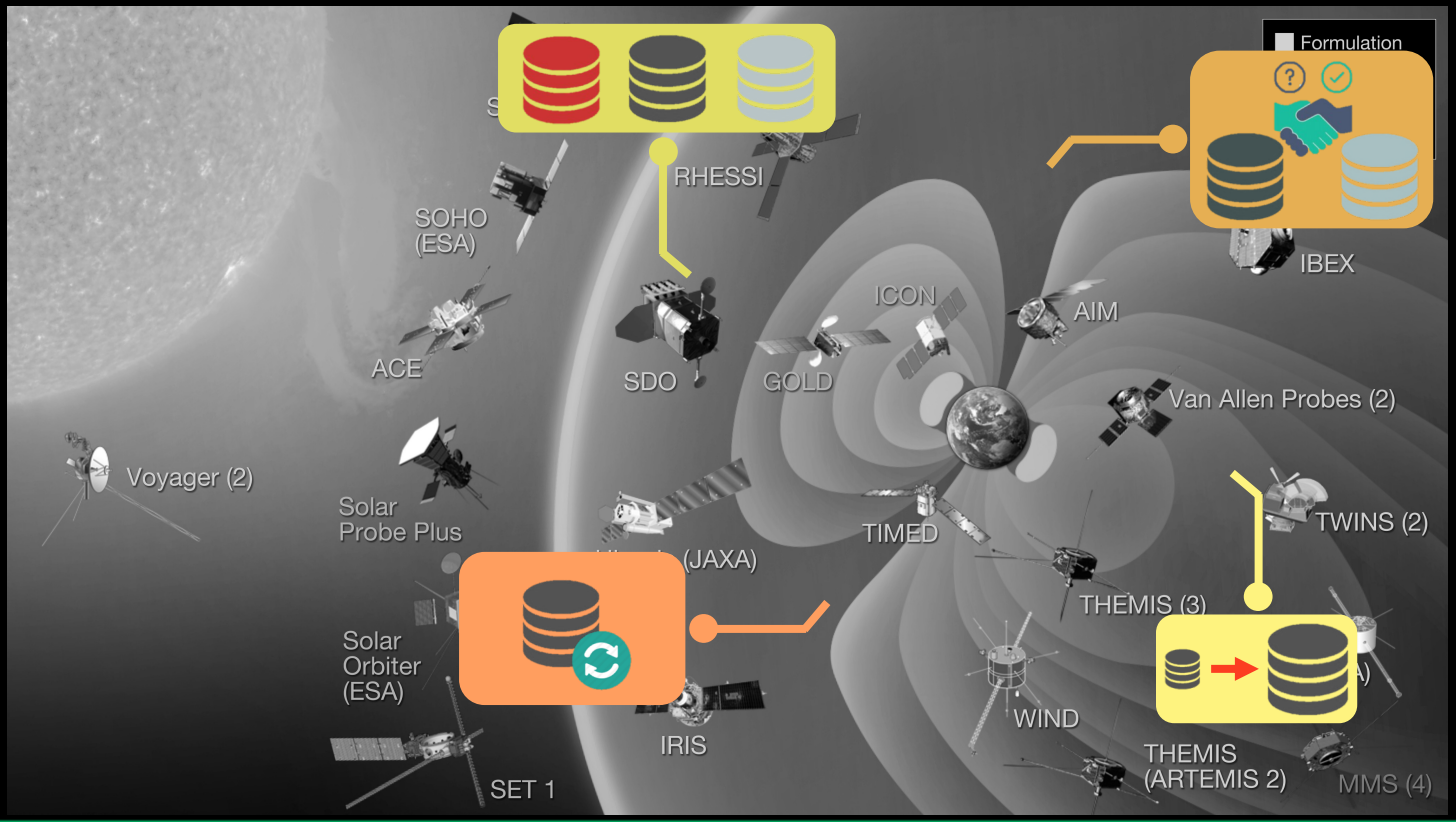
Background:
Data science

Opportunity:

- Evolve traditional approaches
- Embrace data-driven discovery
- Enable interdisciplinary work

Background:
Data science

The challenge - **Why data science?** - Agenda



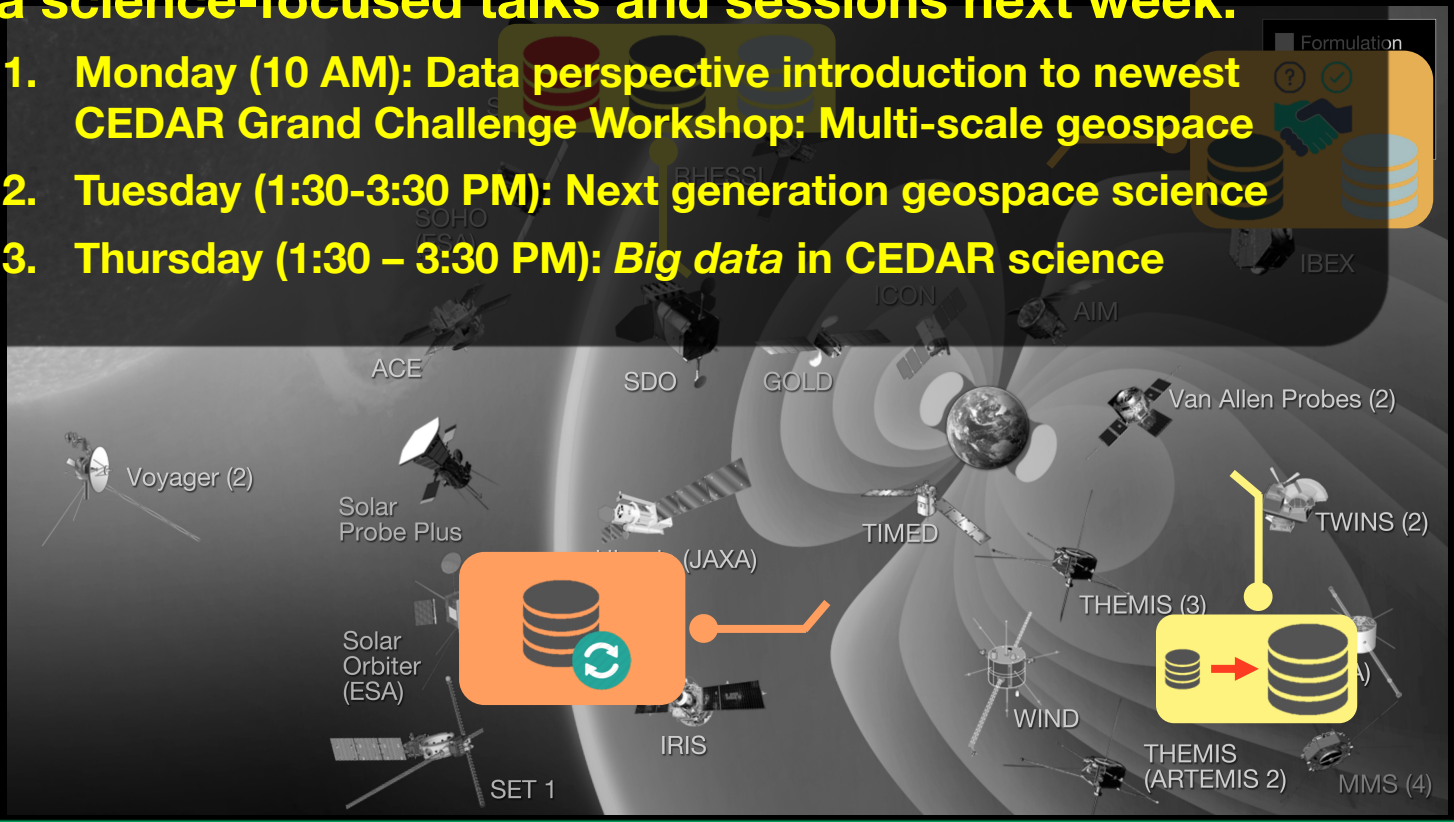
Scalable architectural approaches, techniques, software and algorithms which alter the paradigm by which data are collected, managed and analyzed.

Dan Crichton, JPL

Background:
Data science

Data science-focused talks and sessions next week:

1. **Monday (10 AM): Data perspective introduction to newest CEDAR Grand Challenge Workshop: Multi-scale geospace**
2. **Tuesday (1:30-3:30 PM): Next generation geospace science**
3. **Thursday (1:30 – 3:30 PM): *Big data* in CEDAR science**



Scalable architectural approaches, techniques, software and algorithms which alter the paradigm by which data are collected, managed and analyzed.

Dan Crichton, JPL

Agenda

15:40 - 16:10 **State-of-the-art data processing for Heliophysics**

- 15:40 - 15:55 Jade Morton (CU Boulder): Ionosphere
- 15:55 - 16:10 Jacob Bortnik (UCLA): Magnetosphere

16:10 - 16:40 **What's to come?**

- 16:10-16:25 Susan Skone (U. Calgary): TREx and the future of geospace enterprises through integration of instrument/facility development and user-centric approach
- 16:25 - 16:40 Jeff Thayer (CU Boulder): Creating 'convergence'

16:40 - 17:00 **Round table discussion**

- Open discussion led by moderators
- Focus on organizing future efforts (CEDAR/GEM Data Science Working Group, Community of Practice, etc.)

Submit comments and discussion items to ryan.mcgranaghan@jpl.nasa.gov

Backup Slides