How This Workshop Fits Into the NRC/NAS Decadal Survey of Solar and Space Physics (and thus the future of Heliophysics)

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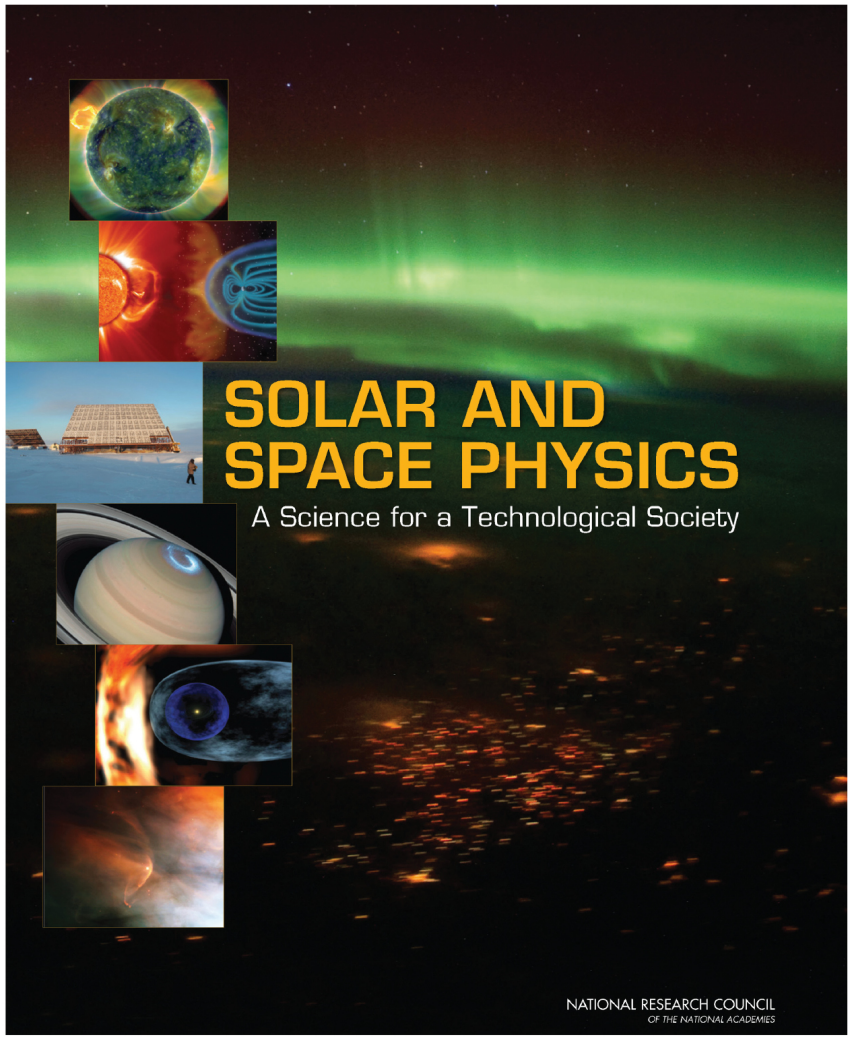
CCMC/LWS Workshop, April 2017



The National Research Council of the National Academy of Sciences produces a report every 10 years, drawing on everyone in the community for input, to **provide direction for the next decade of Solar and Space Physics research.** The current plan is for 2013-2022.

The "Decadal Surveys" form the basis for the relevant work of NASA, NSF, NOAA and other US agencies in terms of mission selection and scientific direction, and are taken seriously as a **blueprints for action**. International collaboration is an integral part of the picture.

Solar and Space Physics: A Science for a Technological Society (2013): "DRIVE Initiative" (complements missions)

A low-cost initiative, DRIVE provides high leverage to current and future space science research investments with a diverse set of science-enabling capabilities. The five DRIVE components are as follows:

- **D**iversify observing platforms with microsatellites and midscale ground-based assets.
- **Realize scientific potential by sufficiently funding operations and data analysis.**
- **I**ntegrate observing platforms and strengthen ties between agency disciplines.
- **V**enture forward with science centers and instrument and technology development.
- **E**ducate, empower, and inspire the next generation of space researchers.

Quote on “Data Exploitation”

To achieve key national research and applications goals, a data environment that draws together new and archived satellite and ground-based solar and space physics data sets and computational results from the research and operations communities is needed.

Quote from Appendix B.3 “Data Systems” B.3.2 Future Goals and Directions

- Heliophysics is poised to make a natural transition from being driven predominantly by the pursuit of basic scientific understanding of physical processes towards one that must also address more operational, application-specific needs, much like terrestrial weather forecasting. *This transition requires (1)* ***instant unfettered access*** *to a wide array of datasets from* ***distributed sources*** *in a* ***uniform, standardized format****, (2)* ***incorporation of the results of community-developed models****, and (3) the ability to perform simulations* ***interactively*** *and to* ***couple different models*** *to track ongoing space-weather events.*
- NASA has already taken the important first step in integrating many of these datasets and tools to form the Heliophysics Data Environment (HPDE). The main objective of the HPDE is to implement a distributed, integrated, flexible data environment. HPDE modeling centers should serve as a sound *foundation for a future, fully integrated Heliophysics data and modeling center.*