

## **Current and Future Challenges in Space Weather Science - a Forecaster's Perspective**

*Monday 9 November 2015 12:00 (30 minutes)*

Real-time operational space weather forecasting is still a difficult task that requires specific observational inputs and modeling that are discussed in this presentation, with an emphasis on solar and interplanetary weather. The use of observational data to produce reliable predictions requires development of physical models and empirical/statistical methods. Scientific basis of space weather forecasting is discussed from the perspective of operational space weather forecasting service being run at the ISES Regional Warning Center Belgium. Several important problems are addressed in detail: solar and interplanetary magnetic field configuration, geometry of coronal mass ejections, acceleration and propagation of energetic particles. Possible ways of improving our predictive capabilities are discussed.

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