



The solar cycle: its variability and prediction

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Solar activity, e.g., sunspots, flares, coronal mass ejections and so on, shows a roughly 11-year cycle period, which is the so-called solar cycle with widely varying amplitudes. In our technological society, the effects of the solar cycle on human society are becoming more and more significant. Nowadays, it is regarded as nature's third most important cycle for our lives. In this talk, I will present our efforts to understand causes of variability in the solar cycle and to develop models to predict solar cycles.

References

- Jiang, J., Qiao, S., Wang, J.-X., and Baranyi, T., Different Contributions to Space Weather and Space Climate from Different Big Solar Active Regions, *Astrophys. J.*, 2019, 871, 16
- Jiang, J., Wang, J.-X., Jiao, Q.-R., and Cao, J.-B., Predictability of the Solar Cycle Over One Cycle, *Astrophys. J.*, 2018, 863, 159
- Jiang, J., Cao, J.B., Predicting solar surface large-scale magnetic field of Cycle 24, *Journal of Atmospheric and Solar-Terrestrial Physics*, 2018, 176, 34-41
- Cameron, R. Jiang, J., Schüssler, M., Solar Cycle 25: Another Moderate Cycle? *Astrophys. J. Lett.*, 2016, 823, L22
- Jiang, J., Cameron, R.H., Schüssler, M., The Cause of the Weak Solar Cycle 24, *Astrophys. J. Lett.*, 2015, 808, L28