



## **Solar wind-magnetosphere-ionosphere coupling at Earth and the planets (Julius Bartels Medal Lecture)**

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Cumulative progress in theoretical and experimental research over recent years has resulted in an enormous increase in understanding of the processes that couple planetary magnetospheres to the solar wind on the outside, and to planetary ionospheres and thermospheres on the inside. In this lecture we will chart some of this progress from the author's perspective, using observational results from ground-based remote-sensing techniques and from spacecraft, combined with simple theoretical modelling.