

Specification and Prediction of the Coupled Inner-Magnetospheric Environment (SPeCIMEN)

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Specification and Prediction of the Coupled Inner-Magnetospheric Environment (SPeCIMEN) is a focus group of next SCOSTEP project: VarSITI. The goals and objectives are the quantitative prediction and specification of the Earth inner magnetospheric environment based on Sun/solar wind driving inputs. Our question is how the inner magnetosphere responds as a coupled system to Sun/solar-wind driving, which will be solved by a combination of physical and statistical modeling, theory and observations from various platforms under this project. The satellite missions such as NASA/Van Allen Probes (US), JAXA/ERG (Japan) and ground-based network observations provide a comprehensive picture on the dynamical evolutions of geospace and reveal processes and consequences of the inner magnetosphere. Anticipated outcome should be a series of coupled, related models that quantitatively predict the dynamical evolution of the inner magnetospheric state including radiation belts, ring current, plasmasphere, plasma sheet. In this presentation, we give an overview of the SpeCIMEN project and the strategy of the project to gain the science output.

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