Physics Colloquium

Friday, November 19, 2021 4:10 – 5:00 PM Barnard Hall 103

Fluxon Modeling of the Steady Solar Wind

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Abstract:

The solar wind flows outward from the Sun, impacting our local space weather environment downstream at Earth. Understanding the nature and dynamics of this solar wind is critical for forecasting space weather. Models of solar wind behavior range from rapid heuristic models to computationally intensive full 3D magnetohydrodynamic models of the solar corona. The Field Line Universal relaXer (FLUX) numerical code provides an intermediate approach for modeling the coronal magnetic field and the steady solar wind - providing the best of both worlds. I'll describe the methodology behind the model, the simulation framework, and solar wind results.

Host: Jiong Qiu

* Refreshments served in the Barnard second floor atrium at 3:45 *