BOSTON UNIVERSITY

Boston University College of Arts & Sciences
Center for Space Physics

2023—2024 SPACE PHYSICS SEMINAR SERIES

Determining the Structure of the Heliosheath through Data and Reasoning

There is an approach to research on the structure of the heliosheath in which you accumulate available date, examine the data, searching for apparent contradictions with conventional understandings, and you create a model, perhaps just a conceptual or analytic model, which can account for all data, and you make predictions that provide tests for the model. The alternative approach, which is more common these days, is to develop large-scale numerical models, based on the physical processes believed to be dominant, and use the models to determine the structure of the heliosheath. The results of the two approaches are bound to differ. The dominant physical processes required to explain the data in the first approach are generally not the dominant physical processes on which the numerical models are build. I will describe the latest results of the application of the first approach to the heliosheath, the dominant physical processes that are revealed, the structure, size, and shape of the heliosheath that are determined, even the direction of the interstellar magnetic field as it is draped around the heliosheath.

Thursday, November 9th

4:00-5:00 p.m.

725 Commonwealth Ave | Room 502

Len Fisk

University of Michigan