

Plasma turbulence in the interstellar medium

K. Ferrière¹

¹ *IRAP, Université de Toulouse, CNRS, Toulouse, France*

The interstellar medium is a multi-phase, magnetized, and highly turbulent medium. In this talk, I will address both theoretical and observational aspects of interstellar turbulence. In the first, theoretical part of the talk, I will discuss the sources of turbulence, the properties of the turbulent cascade, the dissipation mechanisms, and the role played by turbulence in the interstellar medium. In the second, observational part of the talk, I will review the main diagnostics of interstellar turbulence, with emphasis on radio wave propagation effects.



Figure 1: *Map of HI 21 cm emission over a $205^\circ \times 40^\circ$ region of the sky (from the GALFA HI Survey (Credit: Joshua Peek).*