

# UNB Physics Department Seminar

## Mesospheric Imaging Michelson Interferometer -- Lab experiment

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Mesospheric Imaging Michelson Interferometer (MIMI) is an imaging Michelson interferometer for measuring wind velocities passively from Doppler-shifted atmospheric airglow emissions in the mesospheric region. It has both the abilities to obtain a two-dimensional image of the wind field and provide an instantaneous velocity scalar for each detector pixel. In this talk, I will have an overview of the conceptions of MIMI. The MIMI experiments in the Atmospheric Physics Laboratory will be introduced, including the etalon testing experiments, phase retrieve algorithms for fixed sectored mirrors and wind simulation in the lab. I will discuss the etalon design and simulation, several phase steps retrieve algorithms, the optical configuration set up and the wind field measurement results.

Thursday Sept. 12, 2019, 1:15--2:15 pm in  
P204. Colloquium tea in P203 beforehand