

About minimization of uncertainties of determination of winds and temperature in the upper atmosphere by data of a Fabri-Perot interferometer

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In this methodical report we have analyzed different algorithms of restoring the spectrum by data of a Fabri-Perot interferometer (FPI) and ways of minimization of uncertainties of definition of kinetic temperature and velocities of neutral gas in thermosphere by shift and width of spectral line.

The following recommendations are given: to optimize the point of operation of the FPI, currently used in the PGI (by reducing the reflection coefficient of interferometer's plates and the free spectral interval); to replace the spectrum retrieval algorithm. These steps should diminish the uncertainties of determination of the wind velocity and the temperature.

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