

Analele Universității București, Matematică
Anul LII, Nr. 2(2003), pp. 201–206

The Astronomical Refraction and the Fermat's Principle

Minodora LIPCANU

June 11, 2003

Abstract : The astronomical refraction for an ellipsoidal atmosphere of the Earth, when the refractive ray is situated in the meridian plane of the observational place, is studied. The invariant of the refraction is deduced with the help of the Fermat's principle. The results generalize those obtained by I. Mihăilă (1973).

Key words and phrases : astronomical refraction, models of atmosphere, Fermat's principle.

Mathematics Subject Classification (2000) : 85A04, 78A10