

Mass distribution of lyrid meteoroids

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Abstract

Long-term visual observations of the Lyrid meteoroid shower have been analyzed to determine the mass distribution of Lyrid meteoroids. The value of the parameter S has been confirmed to be less than 1.8, which is normally assumed for meteoroid streams. The inclination of the descending and ascending branches of the S curve, depending on the longitude of the Sun, does not seem to exceed 3° . Observations carried out from 1987 until 2007 reveal that the minimum value of S corresponding to the longitude of the Sun $32.19 \pm 0.04^\circ$ is equal to 1.54 ± 0.02 (2000.0). The analysis of the S parameter derived from visual observations did not discover any particularities in the mass distribution of the meteoroids in the stream connected with the assumed 12-year enhancement period in the activity of the Lyrids. © 2010 Pleiades Publishing, Ltd.

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