Precession of parent bodies from historical meteor outbursts

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We collect records of meteor outbursts from world-wide historical archives, and analyzed them to see which meteor outbursts have existed during the last two millennia. We calculate the dates of occurrence within the sidereal year for each record, and find four prominent major meteor streams having existed continuously. The prominent and continuous meteor streams are the Lyrids, the Perseids, the Leonids, and the eta-Aquariids/Orionids pair. We also check the regression of nodal points of these streams, and find that both the Leonids and the eta-Aquariids/Orionids pair have relatively large precession rates, while the other streams have small rates. We discuss that the near-type outbursts have occurred more frequently than the far-type outbursts.

Note from the editors

No paper has been submitted. Please contact the author if you want more information about this topic.



The author, Sang-Hyeon Ahn during his lecture (Photo by Axel Haas).