

The CILBO meteor orbit database

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Abstract

The double-station meteor cameras of the CILBO (Canary Islands Long-Baseline Observatory) observe the same volume in the atmosphere above the islands Tenerife and La Palma. The setup allows a stereoscopic view of meteors that is suitable for meteor orbit determination (Koschny et al. 2013, Koschny et al. 2014). The CILBO system has observed over 15,000 meteors simultaneously since operation began in 2012. The software package 'Meteor Orbit and Trajectory Software' (Koschny & Diaz 2002) was extended by a Monte-Carlo based approach to compute orbital elements and other flight dynamic properties. The results are saved in a database and are used by ESA's Meteor Research Group and collaborating institutes. In this work we present an overview of the database and its content. We give a summary of certain stream detections, the sporadic background and the detected source regions.

Key words. CILBO – double station – meteor – orbit determination - database

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