COMPARISON AND ADJUSTMENT OF CME VELOCITIES ACCORDING TO VARIOUS CATALOGS DATA

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Coronal mass ejections (CMEs) influence the state of space weather, and the initial CME velocity values are in many cases mandatory input parameters for various forecast models of geomagnetic disturbances or high-energy particle fluxes. We discuss the problem of discrepancy between CME velocities determined automatically in near-real time (CACTUS catalog, https://www.sidc.be/cactus/catalog.php) and those calculated with a significant delay after more thorough data processing (LASCO catalog, https://cdaw.gsfc.nasa.gov/CME_list/). In particular, we consider the CMEs that reached the Earth's orbit in the period from 1997 to 2023 (FEID database, https://tools.izmiran.ru/feid), for which a one-to-one correspondence was established between the two catalogs. Preliminary estimates of the relationship between the velocity values for different speed ranges and CME types are obtained, which can be used to make forecasts in near-real time (with the minimum delay provided by CACTUS).