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CME properties and solar source region characteristics – HELCATS results

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One objective of the EU FP7 project HELCATS is to derive and catalogue the characteristics of CMEs observed with the STEREO/COR2 & HI imagers based on geometrical and forward modelling. Here we present the results of the analysis of a subset of the 122 CME events that have been dynamically modelled with the GCS-method in the COR2 field of view and which are compiled in the KINCAT database at http://www.affects-fp7.eu/helcats-database/database.php. The CME properties, such as speeds, masses, angular widths, as derived from modelling, are compared with magnetic field properties of the corresponding solar source active region, such as magnetic flux, area, and polarity line characteristics. The results show which solar parameters define the structure of CMEs at distances around 12 solar radii and how they can be used for space weather forecast services.