

Heliophysics Knowledge Base

Parameters for sunspot features obtained with STARA sunspot tracking algorithm (Originating organisation: Glasgow)

Source : Feature/Event types definitions last updated: 2010-03-05

There are two types of output from the algorithm:

- One file per image listing the sunspots present and their parameters
- One file per sunspot showing all the images it was detected in and how the parameters changed throughout.

The algorithm uses Stonyhurst heliographic coordinates.

Parameter keywords :

Event_Type	'SS' for sunspot
KB_ArchivDate	Date when VOEvent entry was imported into Knowledge Base
KB_ArchivID	Unique internal ID of VOEvent entry
KB_Archivist	Name of Archivist (internal. user should leave blank)
KB_ArchivURL	URL of VOEvent entry (internal. user should leave blank)
Event_CoordSys	UTC-HGS-TOPO [Heliographics Stonyhurst]
Event_CoordUnit	deg,deg
Event_EndTime	Time when event ends (e.g. 2004-02-14T02:00:01)
Event_StartTime	Time when event starts (e.g. 2004-02-14T02:00:01)
Event_Coord1	Coordinate 1 of mean location of event
Event_Coord2	Coordinate 2 of mean location of event
Event_C1Error	Uncertainty in Coord1 of the mean location of the event.
Event_C2Error	Uncertainty in Coord2 of the mean location of the event.
FRM_Contact	Fraser Watson – f.watson@astro.gla.ac.uk
FRM_DateRun	Date when Feature Recognition Method (FRM) was run
FRM_HumanFlag	F
FRM_Identifier	Username for Knowledge Base

FRM_Name	STARA (Sunspot Tracking And Recognition Algorithm)
FRM_ParamSet	Values of parameters (e.g. "threshold=0.1")
FRM_URL	URL to webpage containing information about the FRM
OBS_Observatory	SOHO
OBS_ChannelID	Continuum
OBS_Instrument	MDI
OBS_MeanWavel	6767.8
OBS_WavelUnit	Angstroms
BoundingBox_C1LL	Coord1 of lower-left corner of bounding box
BoundingBox_C2LL	Coord2 of lower-left corner of bounding box
BoundingBox_C1UR	Coord1 of upper-right corner of bounding box
BoundingBox_C2UR	Coord2 of upper-right corner of bounding box
Area_AtDiskCenter	Area of spot at disk center
Area_Unit	square kilometres