

18th NDAC Report from Lund Observatory

WP8000: Double Stars (Söderhjelm, Lindegren)

Simulation experiments have continued for multiple (trapezium type) stars with up to 5 components and good *a priori* positional information, and for double and multiple systems with good relative positions but requiring a search procedure for the absolute position. The simulation software and some results were presented at the RGO simulation meeting (Sept 22-23) and at the 3rd FAST Thinkshop in Bari (Nov 3-6).

Great-Circle Reduction (Lindegren)

We have agreed to modify the SIMSET software (077) to produce also data in a form suitable for the FAST great-circle analysis (at Delft Department of Geodesy). A format for the Lund/Delft interface has been proposed (082 = C) and will be used with some small modifications (a second issue of 082 is forthcoming). A simulated set of grid coordinates was to be delivered to Delft on Dec 1, but has been delayed because we hoped to use the preliminary Input Catalogue as source. We now expect to send the data to Delft on Dec 15, using a simulated catalogue if necessary.

Miscellaneous (Lindegren)

Considerable effort has been spent on trying to clarify the basic conventions and reference systems used by NDAC and their relations to FAST counterparts (083 = C , 084 = C). Work in progress includes two contributions on the treatment of minor planets and double stars, to be published in the proceedings of the Bari Thinkshop.

Working papers

- C Lindegren 1986 Sept 1: Disc space requirements for Step 2/3
(NDAC/LO/079)
- C Söderhjelm 1986 Sept 10: HIPPARCOS reductions for multiple stars, IVa
(NDAC/LO/080)
- C Lindegren 1986 Sept 18: Simulation software developed at the Lund
Observatory (for RGO simulation meeting)
- C Lindegren 1986 Oct 2: Reflexions on the comparison of IDT data sets
(NDAC/LO/081)
- C Lindegren 1986 Oct 6: Format specification for Lund simulated data
(NDAC/LO/082) input to Delft RGC solution
- C Lindegren 1986 Oct 7: Relation between FAST and NDAC attitude
(NDAC/LO/083) representations
- C Lindegren 1986 Oct 10: Conventions and reference systems used by NDAC
(NDAC/LO/084)
- C Lindegren 1986 Oct 20: Definition of reference frames for the
HIPPARCOS instrument: Relations between
NDAC, FAST, and MATRA reference frames
(input to FAST calibration document)
- C Söderhjelm 1986 Oct 24: NDAC simulations of double and multiple stars:
(NDAC/LO/085) Detectability and astrometric accuracy
(for the Bari Thinkshop)