

The IMPS Data Collection

Data Overview

Using orbital elements for 26,791 numbered asteroids, SIMPS found 2228 different multiply-observed asteroids associated with IRAS sources, an increase of 432 (24%) over IMPS. Diameters and albedos were rederived.

The data set includes the following files, listed by their SIMPS product numbers and by their filenames in this PDS data set.

Product #:	filename:	contents:
FP202	diamalb	Diameters and Albedos Catalog, containing averaged results for 2228 numbered asteroids with at least two accepted observations
FP203	single	Singleton Catalog, containing diameters and albedos of the 242 asteroids with only a single accepted sighting in a single band
FP205	reject	Reject File, containing a summary of the rejected sightings for each asteroid and reasons for their rejection
FP206	missed	Missed Predictions File, containing a summary of asteroids that were scanned by the IRAS focal plane array but which did not generate any associations
FP207	elem1,2,3	Three orbital element files at epochs separated by 100 days used in the SIMPS data processing
FP207	add1	Additional groundbased data used in the SIMPS data processing
FP208	sightings	Sightings File, containing a listing of 9244 accepted sightings associated with the 2228 numbered asteroids identified by SIMPS

The SIMPS results and the contents of the above data files are described in [TEDESCOETAL2002]:

Tedesco, E.F., P.V. Noah, M. Noah, and S.D. Price 2002. The Supplemental IRAS Minor Planet Survey. *Astronomical Journal* 123,1056-1085.

Modification History

The IMPS data set was introduced into the PDS archive in 1994 and updated in 1995 to correct minor errors. The original version contained only the diameters and albedos file, and subsequent revisions through 2002 added additional products including the sightings file, missed predictions, singleton detections, supporting groundbased data, rejected sightings, and the flux lookup table used to generate the IMPS albedos. In 2004, Version 6.0 replaced the IMPS results with the Supplemental Minor Planet Survey (SIMPS), a newly published revision of IMPS. SIMPS is considered to supersede the original IMPS.