JOINT DISCUSSION 14
THE FIRST RESULTS OF HIPPARCOS AND TYCHO

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In August 1997, at the time of the IAU General Assembly in Kyoto, the Hipparcos and Tycho data had been widely available. They have been published in June 1997, and Principal Investigators had access to the data related to their proposals during 1996 and early 1997.

The Joint Discussion aims at presenting the Hipparcos and Tycho astrometric and photometric results; their quality and reliability; their calibration and the systems to which they have been linked; and the results obtained for double and multiple stars, for variable stars, for minor planets and satellites.

It is also one of the first occasions to widely present the new and exciting scientific results obtained from these data in a variety of domains: reference frames and the methods used to link the Hipparcos frame to ICRF (presented in detail in JD 7 on 'The new International Celestial Reference Frame' chaired by Leslie V. Morrison); impact of Hipparcos and Tycho data on astrometric observations and reductions; impact of Hipparcos parallaxes on our knowledge of nearby stars (stellar interiors, stellar ages and masses, luminosity function); impact of Hipparcos and Tycho data on galactic structure, kinematics and evolution, on the calibration of distance scale primary indicators; including some highlights about new determination of the distance, three-dimensional structure, HR diagram, chemical composition and internal dynamics of very nearby galactic open clusters; discovery of new double stars, impact on duplicity statistics; discovery of new variable stars, impact on studies of stellar variability and their applications; impact of Hipparcos and Tycho astrometric and photometric observations on studies of minor planets and satellites.

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