

## **Jackson-Gwilt Medal 2021 – Dr Floor van Leeuwen**

### **Full citation**

Dr Floor van Leeuwen is awarded the Jackson-Gwilt Medal 2021 for his reprocessing of the entire Hipparcos Catalogue, which remains the reference for the most accurate and complete astrometric data for the brightest stars.

Dr Floor van Leeuwen was the leader of the small team at the Royal Greenwich Observatory who worked on the original analysis of the Hipparcos data alongside astronomers from other countries.

On the basis of his deep knowledge of the original data, Dr van Leeuwen realised after publication of the original results in 1997, that improved modelling of the satellite pointing led to a factor of up to four times an improvement in accuracy. Dr van Leeuwen therefore decided that all the astrometry in the entire Hipparcos Catalogue should be re-reduced from scratch.

Largely on his own, he worked for two and a half years, using similar methods to those now used for ESA's Gaia mission, to reprocess the data. The result was a vastly improved catalogue whose statistical weight was 2.2 times that of the 1997 catalogue. The paper has accrued over 2700 citations in the past 10 years.

Even after the second data release from ESA's Gaia mission, Dr van Leeuwen's reduction of the Hipparcos data is still the reference for the most accurate and complete astrometric data for the brightest stars.

For these reasons Dr Floor van Leeuwen is awarded the Jackson-Gwilt Medal.

### **Short citation**

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