Observations of the comet 153P/Ikeya-Zhang

The long-period comet 153P/Ikeya-Zhang showed many different, interesting structures during its approach towards the sun and therefore it was a multifaceted comet. I observed this comet at the school observatory of the secondary school in Heerbrugg (Switzerland) from March 2002 to June. I took the photographs with the support of my former astronomy teacher Mr. Benedikt Götz with a CCD-camera ST-10E on a 40cm-telescope Meade LX-200.

I set myself the task to observe this comet over a longer time period in order to document its activity and to search for structures in the coma which give information about active regions on the cometary nucleus and its rotation movement. In addition I examined the coma diameter as well as the speed, the coma's condensation degree, the tail's orientation and different structures in the coma which I also compared to CCD-photographs of the Wendelstein-observatory (Germany).

I complemented the CCD-photos with 45 slide-photographs which I shot using the tracking of the mobile school observatory telescope Celestron C8 and the camera OM2, in order to get the whole comet on the picture and to be able to document the tail's length, as well as the tail's orientation.

Ikeya-Zhang crossed its perihelion on the 18th of March 2002 with a speed of about 59km/s, a 150'000km long coma diameter, a tail length of about 6° and a maximum brightness of 3 magnitudes. The gas and dust tail seperated after its maximum approach towards the sun and two tails became visible.

Abstract — Observations of the comet 153P/Ikeya-Zhang – Paper by Barbara Burtscher, Bahnhofstrasse 73, CH- 9450 Altstätten (SG), age-group 1985
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