



## Re-inauguration of the Great Refractor



Fig. 1: The restored refractor back in his old glory.



Fig. 2: Minister Wanka in conversation with AIP-director Prof Matthias Steinmetz and the chairman of the Foederverein Dr Gußmann (f.l.t.r.)



Fig. 3: The manager of 4H-Jena-Engineering uses the new electronic device for opening the dome together with the main sponsor Mrs Neeser of the Pietschker-Neeser-Stiftung.

*After four years of hard work the Astrophysical Institute Potsdam (AIP) re-inaugurates the Great Refractor on the site of the “observatories“ of the Telegraphenberg, the present “Science-Park Albert Einstein“. With the re-inauguration of the Great Refractor on 31 May 2006, the work on the instrument, the observation platform, the observation chamber and the entrance area is complete. With the ceremonial addresses of the Brandenburg Minister for Science, Research and Culture, Prof Dr Johanna Wanka, Mrs Gabriele Fischer from the office of the Mayor Jann Jakobs, the secretary general of the Deutsche Stiftung Denkmalschutz, Dr Robert Knüppel, and the scientific director of the Astrophysical Institute Potsdam, Prof Dr Matthias Steinmetz, the astronomical instrument is again open for the interested public.*

The Great Refractor was inaugurated on the 26th of August 1899 in the presence of Emperor Wilhelm II as the main telescope of the Astrophysical Observatory Potsdam. Back then, as today, it was the fourth largest refracting telescope in the world, and the largest photographically corrected refractor. The telescope is a double refractor with two integrated and parallel-connected telescopes on a parallactical montage. It consists of a photographical telescope with a lense diameter of 80 centimeters and 12.2 meters focal width and an optical telescope of 50 centimeters diameter and a focal width of 12.5 meters for direct star observations. The Great Refractor’s particular success was the measurement of double stars using photometric methods.

In 1945, the building and the mechanical parts of the Great Refractor were heavily damaged by a bomb, although the telescope remained intact. In the 50’s the firm Carl Zeiss Jena restored and modernized the instrument so that the Astrophysical Observatory Potsdam could again use it for observations. After the restoration of the building, the regular observations were resumed until 1968. After that, the Great Refractor started to decay. From 1990 to 1992, the dome was restored. In 1997, the Foederverein Grosser Refraktor Potsdam e.V. was founded. It was able to gain numerous sponsors who enabled the restoration of the Great Refractor to its old glory. In July/August 1999, the telescope and the observation chair were restored. In 2000, the outer dome was painted. In April 2003, the firm 4H-Jena Engineering started its

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Fig.4: The dome opens.

restoration work. The transfer of the Great Refractor, which had to be lifted through the dome by a large crane and which was replaced on the 17th of June 2005 in the same way, were spectacular events.

The restoration work and the re-inauguration were enabled by the Deutsche Stiftung Denkmalschutz, the Pietschker-Neese-Stiftung, numerous individual sponsors and the engagement of the Foerderverein Grosser Refraktor e.V., of the employees of the Astrophysical Institute Potsdam and the firm 4H-Jena Engineering.

From 2 p.m. to 5 p.m. the Astrophysical Institute Potsdam and the Foerderverein Grosser Refraktor e.V. offered public tours of the refractor allowing everyone interested to visit the restored Great Refractor.