

Tonight's 'History of Astronomy' topic is:

Friedrich Georg Wilhelm von Struve



Founder of an astronomical
family dynasty



Compiled by Jim Wessel
Johnson Space Center Astronomical Society

F. G. W. von Struve

- Born April 15th, 1793.
- Family moved to Russia when he was a teen, to escape conscription into Napoleon's army.
- Graduated from the University of Tartu in Estonia in 1811, with a degree in philology.
- In 1813, at the age of 20, he finished his doctorate in astronomy and mathematics.
- He married Emilie Wall in 1815
 - they produced 8 surviving children – including Otto Wilhelm von Struve, another notable astronomer.
- After Emilie's death in 1834, Friedrich married Johanna Bartels – 6 more children.
- While in college and working on his doctorate, he frequently used the Dorpat Observatory. When the observatory's director died in 1816, Struve was appointed the director (at 23), and held the position for the next 36 years.



F. G. W. von Struve

Gamma
Leporis



The Dorpat 9.5" refractor

- While at Dorpat, Struve started his life's calling – Double Stars – on which he produced his first catalog in 1822.
- In 1824, the observatory bought a new 9.5" refractor – the first with a clockdrive, and Struve responded with an even more vigorous search for double stars.
- *Catalogus Novus* (1827)
- *Mensurae Micrometricae* (1837)
- *Positiones Mediae* (1852)
- Won the Gold medal of the Royal Astronomical Society in 1826, and was elected a member of the Royal Swedish Academy of Sciences in 1833.

F. G. W. von Struve

- In 1839, Struve became the director of the soon to be built Imperial Observatory at Pulkova, near St. Petersburg.
- Together, Friedrich and his son, Otto Wilhelm, found another new 514 pairs of stars.
- Struve's concept of the shape of the Milky Way galaxy – disk shaped with a finite thickness and infinite distance in the galactic plane.
- He proposed a theory of light extinction, some of it was right, some not.
- Retired in 1861, after failing health, and died in 1864.



F. G. W. von Struve

- Discovered or co-discovered ~ 3,000 double stars, and measured 3112 binary stars.
- The Asteroid 768 Struveana is named in honor of Friedrich Georg Wilhelm von Struve and his son Otto Wilhelm von Struve.

Sources:

Wikipedia, Answers.com, Britannica.com, and *An Astronomical Dynasty* from The Observatory, Vol. LV, October 1932, No. 701.

The JSCAS website will soon have the F.G.W. von Struve catalog of Double Stars posted on it, for those wishing to get a better look at Struve's work.

