IX BULGARIAN-SERBIAN ASTRONOMICAL CONFERENCE: ASTROINFORMATICS

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THE MATHEMATICIAN AND THE ASTRONOMER SIMON MARIUS (1573 – 1624)

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Abstract

We present the work of Simon Marius - a mathematician and astronomer who discovered in 1610 the four largest moons of Jupiter with a Belgian made telescope at about the same time as Galileo Galilei, but published his discoveries 4 years later. In 2014 the astronomical community commemorates 400 years since the publishing of Simon Marius' book *Mundus Iovialis* containing his observations done independently by Galilei. Marius‘ records are even closer to the modern figures than Galilei's ones. Simon Marius noticed also, that the orbital plane of the Jupiter moons is slightly tilted relative to both the Jupiter equatorial plane and the ecliptic, explaining thus the discrepancies in latitude, which Galilei did not mention. Marius also noticed the change in the moons’ brightness and calculated respective tables for the period 1608 - 1630. Simon Marius was a calendar maker and a translator of Euclid from Greek – he published *Die Ersten Sechs Bücher Elementorum Euclidis* (The First Six Books Elementorum Euclidis). Among his observations are the comets of 1596 and 1618, the supernova in the constellation Ophiuchus in 1604 (giving its precise position), observations of Venus, and the sun spots, from whose movement he noticed that the equatorial plane of the sun is tilted relative to the ecliptic and the appearance of sunspots is periodical. Simon Marius first observed the Andromeda Nebula in December 1612.

Simon Marius (1573 – 1624)

Mathematician and astronomer who discovered in 1610 the four largest moons of Jupiter with a Belgian made telescope at about the same time as Galileo Galilei, but published his discoveries 4 years later.

In 2014 the astronomical community commemorates 400 years since the publishing of Simon Marius' book *Mundus Iovialis* containing his observations.

The multilingual portal dedicated to Simon Marius (**http://www.simon-marius.net/)** and prepared by the Nuremberg Astronomical Society, has been opened since February 2014. The portal gives introduction to his biography and scientific achievements, as well as retrievable sources, secondary literature, lectures, news and convenient links.

It is intended to be a guide through the anniversary year of 2014.

http://www.simon-marius.net/

SIMON MARIUS

MATHEMATIKER – ARZT – ASTRONOM

1573 – 1624

START
EINFÜHRUNG

SIMON MARIUS
LEBEN UND FORSCHUNG

SÄMTLICHE WERKE
UND GELEGENHEITSSCHRIFTEN

SEKUNDÄRLITERATUR
WISSENSCHAFTLICHE TEXTE

BERICHTERSTATTUNG
ARTIKEL AUS ZEITUNGEN

LEXIKONEINTRÄGE
UND INTERNETSEITEN

VERANSTALTUNGEN
VORTRÄGE UND AUSSTELLUNGEN

BLOG
NEUIGKEITEN

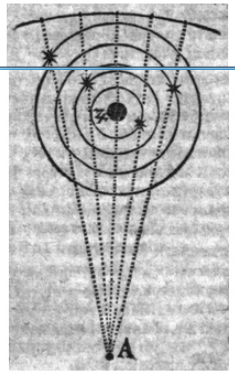
KONTAKT
UND PARTNER

Simon Marius
hat auch Facebook

Der Ansbacher Hofastronom aus Gunzenhausen entdeckte zeitgleich mit Galileo Galilei die vier großen Jupitermonde, publizierte seine Ergebnisse aber erst 1614 im *Mundus Iovialis*, der damit im Jahr 2014 auf 400 Jahre zurückblicken kann.

Von Galilei des Plagiats bezichtigt, nahm sein Ruf nachhaltig Schaden, obwohl zu Beginn des 20. Jahrhunderts gezeigt wurde, dass Marius völlig selbstständig forschte. Verschiedene Veranstaltungen – vorzugsweise im fränkischen Raum – werden 2014 seine wissenschaftlichen Leistungen beleuchten.

Diese Internetpräsentation wird das Jubiläumsjahr 2014 begleiten und alle elektronisch verfügbaren Quellen, Sekundärliteratur, Vorträge und Nachrichten zu Simon Marius zusammenführen und – wo möglich – bequem einsehbar machen. Die Initiatoren laden die Öffentlichkeit ein, diese Seite als zentrales mehrsprachiges Portal für Simon Marius zu nutzen und zu erweitern.



Prognosticon Astrologicum auf 1612, C3r

Support Simon Marius Portal

SIMON MARIUS (ALSO KNOWN AS SIMON MAYR)

A Short Summary of his Life

•Born on 10th January 1573 in Gunzenhausen as Simon Mayr. His father Reinhard Marius was Mayor of Gunzenhausen.

•Married, five sons and five daughters, of whom only the daughters survived their childhood.

•Education: by chance, Margrave Georg Friedrich overheard him singing and arranged for him to be enrolled in the Fürstenschule at Heilsbronn, which he attended until 1601. Plan to study at Königsberg - couldn't be realised.

•Visit to Tycho Brahe at Prague in 1601.

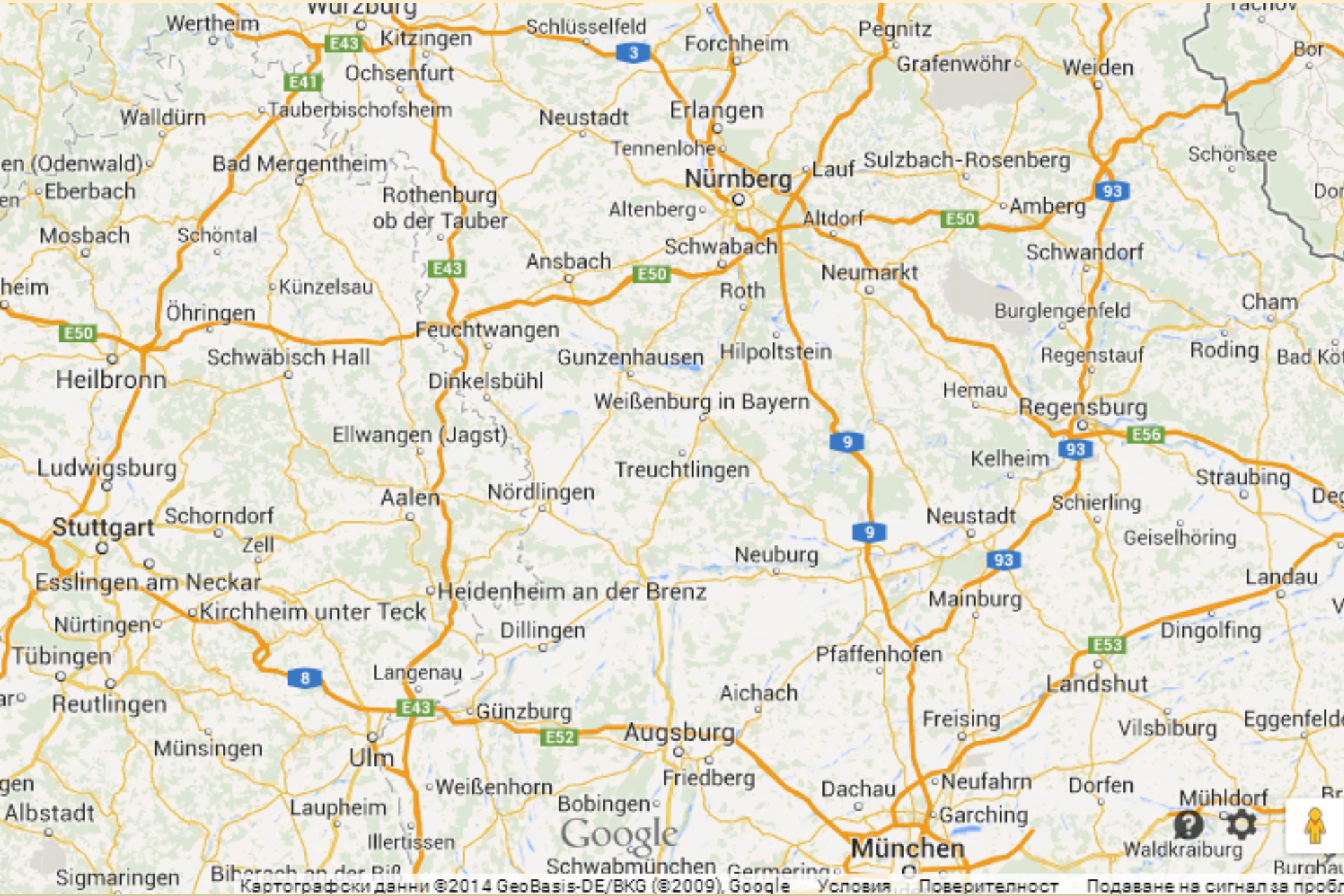
A Short Summary of his Life (continuation)

•Studying medicine in Padua until 1605, where he probably met Galileo. Member of the board of the so-called German Student-Nation in Padua (1604-1605).

•In the period 1606 - 1624 he was a court mathematician to the Margraves in Ansbach, as well as medical practitioner, astronomer and calendar maker.

•Published as Simon Marius after the fashion of his times.

•Death in 1624 (5^{th} January 1625).


Würzburg
Wertheim
Kitzingen
Schlüsselfeld
Forchheim
Pegnitz
Grafenwöhr
Weiden
Ochsenfurt
Tauberbischofsheim
Walldürn
Neustadt
Erlangen
Tennenlohe
Nürnberg
Lauf
Sulzbach-Rosenberg
Schönsee
Bad Mergentheim
Eberbach
Rothenburg ob der Tauber
Altenberg
Altdorf
Amberg
Mosbach
Schöntal
Schwabach
Ansbach
Schwandorf
Neumarkt
Roth
Künzelsau
Öhringen
Burglengenfeld
Cham
Feuchtwangen
Schwäbisch Hall
Gunzenhausen
Hilpoltstein
Regenstauf
Roding
Heilbronn
Dinkelsbühl
Weißenburg in Bayern
Hemau
Regensburg
Ellwangen (Jagst)
Kelheim
Straubing
Ludwigsburg
Treuchtlingen
Aalen
Nördlingen
Schierling
Stuttgart
Schorndorf
Zell
Neustadt
Geiselhöring
Neuburg
Esslingen am Neckar
Heidenheim an der Brenz
Mainburg
Landau
Kirchheim unter Teck
Nürtingen
Dillingen
Dingolfing
Tübingen
Pfaffenhofen
Langenau
Aichach
Landshut
Reutlingen
Günzburg
Freising
Vilsbiburg
Münsingen
Augsburg
Ulm
Friedberg
Weißenhorn
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Условия
Поверителност
Подаване на сигнал за пробл

Short Summary of the Research

• From summer 1609 he had a Belgian made telescope at his disposal, thanks to his mentor Johannes Philipp Fuchs von Bimbach, with which he discovered the four largest moons of Jupiter – by his own records given according to the Julian calendar on December 29, and therefore just one day after Galileo had discovered them, who dated his observations according to the Gregorian calendar. Published his discoveries in the book *Mundus Iovialis* 4 years later.

•His observations were done independently by Galilei. Marius‘ records are even closer to the modern figures than Galilei's ones.

•He noticed also, that the orbital plane of the Jupiter moons is slightly tilted relative to both the Jupiter equatorial plane and the ecliptic, explaining thus the discrepancies in latitude, which Galilei did not mention.

Short Summary of the Research (continuation)

•Marius also noticed the change in the moons' brightness and calculated respective tables for the period 1608 - 1630.

•Calendar maker (for the period 1601-1629 his yearly calendars *Prognosticon astrologicum* were published).

•Translator of Euclid from Greek – he published *Die Ersten Sechs Bücher Elementorum Euclidis* (The First Six Books Elementorum Euclidis) in Ansbach.

•Meteorological records since 1594.

•Observations of the comets of 1596 and 1618 (the third and largest of the three comets of that year) and of the supernova in the constellation Ophiuchus in 1604 (giving their precise positions before the invention of the telescope).

Short Summary of the Research (continuation)

•Observations of Venus (in Summer 1611).

•Observations of sun spots since August 1611, from whose movement he noticed in November 1611 that the equatorial plane of the sun is tilted relative to the ecliptic. In 1619 he first suggested that the appearance of sunspots was periodical.

•Simon Marius first observed the Andromeda Nebula in December 1612.

•Although Marius was in the possession of the most important astronomical discoveries of the early 17th century, he opposed the heliocentric world picture and favoured that one of Tycho Brahe after reading Copernicus during the winter of 1595–1596.

Short Summary of the Research (continuation)

•To this day, Marius' work is overshadowed by the accusation of plagiarism, even though it was proven at the beginning of the 20th century that Marius had conducted his research entirely independently and even his earliest records are closer to the modern figures than Galileo's.

Honours

In 1612 Marius was given a silver cup as a present by the town of Gunzenhausen. The naming of Jupiter's moons after the mistresses of the Roman god Jupiter, which was introduced at the beginning of the 20th century, goes back to Marius, who had been given the idea by Kepler in Ratisbon (Regensburg) in 1613.

The International Astronomical Union (IAU) honoured Marius by naming a crater on the Moon as well as the nearby "Marius Hills" and the "Rima Marius" after him. The City of Gunzenhausen named their high school Simon-Marius-Gymnasium. In the Onoldia conference centre in Ansbach there is a chamber called the Simon-Marius-Saal. In 1991 the Lions Club erected a memorial at the Kleiner Schlossplatz in Ansbach, designed by the Munich artist Friedrich Schelle. Streets have been named after Marius in a number of towns connected with his life and his work.

http://www.w-volk.de/museum/monum69.htm#bibio00

Zeugnisse zu Mathematikern

Monuments on Mathematicians

Portal > Eingangshalle / Entrance lounge > Anders gestaltete Denkmäler / Otherwise designed monuments > S. Marius / Ansbach

Monument for Simon Marius in Ansbach (Germany)


MARIUS
MARKGRÄFLICH
BRANDENBURG
ASTRONOM UND
ARZT GEB. 1573
IN GUNZENHAUSEN
IN ANSBACH
UND DECKTE AUF
DIE PLANETEN
JUPITER
IM JAHRE 1609
ERSCHIENEN SEIN
HAUPTWERK
MUNDUS
JOVIALIS
DIE WELT DES
JUPITER

Text of the opened book of the monument

Simon
Marius
Markgräflich
Brandenbur-
gischer Hofma-
thematikus,
Astronom und
Arzt, geb[oren]
1573
in Gunzenhau-
sen, gest[orben]
1624
in Ansbach,

entdeckte im
J[ah]re
1609 4 Monde
des Planeten
Jupiter.
Im Jahre 1614
erschien sein
Hauptwerk
'Mundus
Iovialis' -
Die Welt des
Jupiter