

HISTORIA MATHEMATICA (1978), 455-459

## GAUSS AND TARTU UNIVERSITY

BY PEETER MÜÜRSEPP, TARTU, USSR

### SUMMARIES

*C. F. Gauss (1777-1855) was twice (1803 and 1809) proposed for the post of professor at Tartu University. This paper describes the state of affairs in which his candidacy was put forward, and the reasons preventing his acceptance.*

*Maailmakuulsa matemaatiku ja astronoomi C. F. Gaussi (1777-1855) kandidatuur esitati kahel korral (1803 ja 1809) Tartu Ulikooli professori kohale. Artikkel kirjeldab Gaussi kandidatuuriga seotud asjaolusid ja põhjusi, mis takistasid tema tulekut Tartusse.*

In 1802 a position as professor of mathematics in the newly reopened University of Tartu was offered to Johann Friedrich Pfaff (1765-1825) from Helmstedt [1]. In September 1803, the Rector of Tartu University, Georg Friedrich Parrot (1767-1852), informed the University Council that although J. F. Pfaff would be willing to accept the professorship at Tartu, the University of Helmstedt would do everything possible to keep him; it would even raise his salary. Because of this, J. F. Pfaff recommended his younger brother Johann Wilhelm Andreas Pfaff (1774-1835) for the position.

However, there were three other candidates for the post-- Gauss from Braunschweig; Johann Karl Burckhardt (1773-1825), who was a member of the Paris Bureau of Longitudes; and Johann Anton Ide (1775-1806), from Göttingen, who was later a professor in Moscow.

Parrot, who wanted to hire professors for the newly opened university from among his own associates, disliked the idea of considering other candidates, and wrote to the University Council that the character of Johann Friedrich Pfaff, which he knew thoroughly, was unquestionably sufficient to guarantee the soundness of his recommendation of his brother.

On the day that a decision had to be made, Parrot announced that Burckhardt had accepted French citizenship and had been appointed as successor to Lalande [2], moreover, said Parrot, Gauss would not leave Braunschweig since the Duke of Braunschweig had promised to build an observatory for him [3]. Parrot therefore proposed to eliminate both Gauss and Burckhardt as candidates.

Although this manoeuver was successful in electing Pfaff, the choice of J. W. A. Pfaff (who was duly elected and came to Tartu early in 1804 to teach mathematics and astronomy) was a failure. Formerly he had taught in a parochial school, and despite his brother's recommendation, he took little interest in his duties and left Tartu in 1809 without paying his debts. As a result, Parrot was criticized by Grigori Levitski (1852-1917), Director of the Tartu Observatory (1894-1908) and also Rector of the University (1903-1905) [Levitski 1899, 23-26].

Nevertheless, the information given by Parrot about Gauss' refusal seems to be quite reliable. A letter of April 4, 1803, sent to Gauss by the Academician Niklaus Fuss (1755-1825) [Mürsepp 1977, 37-41] gives further confirmation of this supposition. (Fuss was the permanent secretary of the St. Petersburg Academy of Sciences; Gauss' letter is preserved in the Department of MSS and Rare Books of the Library of Tartu State University.) The Academy in St. Petersburg had also offered a position to Gauss. In refusing it, he wrote to explain that the terms offered by the St. Petersburg Academy were sufficient, but that his gratitude to the Duke of Braunschweig, who had lately improved his living conditions, prevented his acceptance of the position [4].

It is hardly probable that Gauss, having rejected the post in St. Petersburg, would have accepted the one proposed at the end of the same year in Tartu. Therefore, Parrot's decision was probably correct and Levitski's reproaches seem unfounded.

The conditions proposed by the Academy to Gauss are outlined in a letter from Fuss to Gauss of May 19, 1803. This letter was published by Ludwig Hänselmann [1878, 58-59], a former archivist of the town of braunschweig. Fuss explained that the budget of the Academy was expected to be increased. Gauss' salary would be about 2400 rubles plus free lodgings and heating, the title of board counsellor (equal to the rank of colonel), a retirement pension of half salary after twenty years and of the whole salary after thirty years. His widow and children would also be paid a pension dependent upon the length of his service. "These are some of the advantages you have apparently renounced," Fuss concluded.

After J. W. A. Pfaff left Tartu in 1809, three more candidates were proposed for the vacant post: Ernst Christoph Friedrich Knorre (1759-1810), Wilhelm Gottlieb Beitler (1745-1811) from Jelgava (Mitau), and again Gauss who, after the Duke's death, had accepted the post of Professor of Astronomy at the Georg-August University in Göttingen.

Gauss' candidacy was supported by Professor Jäsche [5] and by the Dean of the Philosophical Faculty, Professor Parrot. Gauss may have had several reasons for being interested in the University of Tartu at this time. First, the University was situated in the Russian Empire, which offered protection from

the French troops that occupied Germany; second, Gauss' friend Schumacher had studied at Tartu University (1806-1807), and he may have told Gauss about the observatory and life in Tartu.

As expected, Gauss was elected by a vote of fifteen for, five against. Beitler and Knorre each received five votes. In reply to the subsequent invitation to accept the post at Tartu University, Gauss wrote to Parrot. This letter of August 20, 1809, is preserved in the State Record Office of the Estonian SSR in Tartu [6].

In the letter, Gauss apologized for the delay in answering due to the negotiations with the government in Kassel and to the difficulty of making a final decision. The government would not consent to his leaving Göttingen, but made some promises for the future instead. There were difficulties with the offer from Tartu as well: the salary of 2500 rubles, with 1000 rubles as a travel compensation, would considerably impair, said Gauss, his material position since the Russian currency was of a low value. However, these were not the main reasons for his refusal. Gauss continued:

*Much more essential for me are two other points:*

*1. My widow would be granted a pension only after five years of my service. According to the present value of currency here, upon my death, my wife would get a pension higher than the proposed maximum in Tartu. Thus [by accepting the position in Tartu] I would be disregarding an essential duty to my family. Although I hardly expect to pass away in the next five years, the increased probability due to the change in climate should not be overlooked.*

*2. In Tartu, there is only one professorship for pure and applied mathematics and astronomy. The main reason for changing my situation would be to expand my scientific activities. But in Tartu I would have to spend a considerable amount of my time teaching elementary mathematics. In fact, I am surprised that in Tartu there are not at least two professorships for such broad subjects, as is the case in other Russian universities. Tartu has an observatory and model instruments, and if maintained purposefully and trusted to the right hands, it could be of the greatest importance in developing nautical knowledge in the western part of Russia. It might also one day be regarded as one of the best known [observatories] in all of Europe.*

Gauss then thanked Parrot for the honor of offering him the position at Tartu University, and added that he felt it best to be straightforward in clarifying the reasons for his non-acceptance. If ever the professorships of mathematics and astronomy were

separated, Gauss asked that his reason for refusing the post in 1809 not be forgotten. The impression remains that in the case of more favorable circumstances, the negotiations might have been resumed. In addition, Gauss wrote strongly in support of Schumacher (who then happened to be in Göttingen) for the vacant post at Tartu [7].

This then was the situation, and these were the reasons for Gauss' refusal to leave Göttingen for Tartu. It is easy to see that Gauss' refusal was not categorical. He only wanted to be offered better working and living conditions. In 1809 Gauss was not restricted by his gratitude towards Duke Ferdinand who had paid his educational expenses. Had the administration of Tartu University been more active and efficient, Gauss would very likely have changed his mind to the advantage of Tartu University.

#### NOTES

1. Until 1893 the town of Tartu had three simultaneous names: the Estonian--Tartu, the German--Dorpat, and the Russian --Derpt, all variants of an ancient Estonian name, "Tarbatu." In 1893-1918 the town was called Yurev, and in 1918 it was renamed Tartu again.

2. Joseph Jérôme de Lalande (1732-1807), astronomer, member of the Paris Academy of Sciences from 1753, Director of the Paris observatory from 1768 up to his death.

3. The ruling Duke of Braunschweig at this time was Karl Wilhelm Ferdinand (1735-1806).

4. Gauss was elected a corresponding member of the St. Petersburg Academy of Sciences on January 31, 1802.

5. Gottlieb Benjamin Jäsche (1762-1852) was the first Professor of Philosophy at Tartu University (1802-1839). He was a friend of I. Kant and published Kant's lectures on logic: "Immanuel Kants Logik" (1800).

6. The German text of the letter with a translation into Russian is published in [Depman 1956].

7. Heinrich Christian Schumacher (1780-1850) was director of the Copenhagen Astronomical Observatory for more than thirty-five years. In 1824 he was elected a corresponding member of the St. Petersburg Academy of Sciences. From 1806 to 1807 he studied at Tartu University under the supervision of J. W. A. Pfaff.

#### REFERENCES

- Depman, Jaan 1956 C. F. Gauss and Tartu University (in Russian) *Voprosy istorii estestvoznaniya i tekhniki* 1, 241-245  
 Hänselmann, Ludwig 1878 *Karl Friedrich Gauss. Zwölf Kapitel aus seinem Leben* Leipzig (Duncker and Humblot)

- Levitski, Grigori V 1899 *Astronomers of Tartu University*  
(in Russian) Yurev (Tartu was called Yurev from 1893 to  
1918).
- MUursepp, Peeter 1977 Gauss' Letter to Fuss of 4 April 1803  
*Historia Mathematica* 4, 37-41