Summary in English

Henrik Kragh Sørensen, *The Scandinavian Congresses of Mathematics until the end of World War I.* (Danish).

The modernisation of science and society around the turn of the twentieth century meant increasing specialisation in mathematics and new importance attached to international contacts. In Scandinavia, from where mathematicians had traditionally oriented themselves towards the mathematical centres in Germany and France, an idea of increased independent, regional cooperation soon caught on. This was the vision of one very important and energetic Swedish mathematician, in particular; namely Gösta Mittag-Leffler.

The Scandinavian countries shared a common linguistic and cultural background to such an extent that academic exchange and cooperation would be eased by it. Furthermore, they shared the role of "small nations" in an increasingly imperialistic world order. That role, as small and most often neutral nations, gave the Scandinavians the possibility to mediate in regional and global conflicts. After the dissolution of the Union between Sweden and Norway in 1905, the first Scandinavian (later properly renamed "Nordic") congress of mathematics served as an extended hand aimed at healing the wounds and furthering professional cooperation.

Although nobody doubted the universal nature of mathematics, the Scandinavian meetings became a welcome regional opportunity for professional and more congenial exchanges. Four such meetings were held before the end of World War I; these meetings are analysed and discussed in the present paper. This first part of the paper covers the congresses in 1909 and 1911; the subsequent two will be covered in a second part. In many ways, the story comes full circle when the narrative reaches 1916: By then, Scandinavian mathematicians had proved their worth to the international world of mathematics, and the role of the small nations in world politics after the war was yet to be defined.

The Scandinavian congresses of mathematics constitute an integrated part of the complex process of professionalisation of mathematics whereby an identity as "a mathematician" was being negotiated. Many of the discussions – be it the political ones or the identity-forming ones – took place in the Scandinavian newspapers and these newspapers have been extensively used. They also provide an interesting perspective on the image of mathematics as presented in the media.

Ülo Lumiste, Helmut Piirimäe, *Sven Dimberg, an introductor of Newton's Principia into the University of Tartu in the 1690s, part 2. Translation by J. Peetre and S. Rodhe* (Swedish.)

This is the second part of three dealing with Sven Dimberg, a Swedish professor of mathematics in Tartu, Estonia, in the 1690s. He is supposed to have introduced Newton's *Principia* in the curricula of the university.

Dimberg's activity at Tartu University is considered, including his teaching, which mostly involved Newton's

Principia. There is also a discussion of the theses supervised by him. On his own expense he bought "mathematical instruments" for the university, as the greedy King Charles XI did not provide any funds for this purpose. In 1697 he took a leave of absence and went to Stockholm, his apparent purpose being to apply for several professorships at Uppsala. This leave was prolonged several times, and Dimberg never returned to Tartu. In 1699 the university was moved to the seaport Pärnu. Dimberg got the assignment to design an astronomical observatory on the roof of the new university building there. The year after, the devastating Great Northern War broke out, eventually annihilating a great part of the population of the Province of Livonia (present day Estonia and Latvia). Dimberg's leave of absence was prolonged several times, but finally the new King Charles XII get fed up with him, and, in 1701, he was dismissed along with some other disobedient professors. This put and end to Dimberg's academic career. Once more, in 1703, he tried to apply for a job in Uppsala, but to no avail. The rest of his life Dimberg served as jurist in the service of several law courts first in Riga (1706-1709); the city fell to the Russians the year after, and then in Finland (Turku) and, finally, in Sweden. In 1719, Dimberg was raised to nobility, and he assumed the name Dimborg. In 1731 he died, childless, so his line died out with him.

Audun Holme, *Some glimpses from the history of mathematics: The controversy between Newton and Leibniz, and a little more.* (Norwegian).

The author gives a brief account of Newton's childhood and education, his early career and appointment to the Lucasian Chair at Cambridge, succeeding Barrow. Wallis, whose work inspired Newton very much, was engaged in a bitter debate with the important philosopher Hobbes, ostensibly over geometry but probably in reality over free thinking atheism versus pious Christian faith.

The great and tragic controversy was, however, the one between Newton and Leibniz. Newton felt convinced that Leibniz had plagiarized his great work, which constitutes the foundation for our present day mathematical analysis and calculus. But no scientist works in a vacuum, and these ideas were, arguably, so to say in the air at the time of Newton and Leibniz. The author briefly indicates the difference between Newton's and Leibniz' approaches.

Newtons theory was difficult to grasp, while Leibniz had a more suggestive notation and was more easily accessible. The difficulty in Newton's theory met with scorching criticism from Berkeley, and Hooke was no friend og Newton's. Halley, however, supported Newton and his work in ways which were quite decisive.

In continental Europe the mathematicians, siding with Leibniz, lost no time in availing themselves of the theory and notation developed by him. Among them the mathematical family Bernoulli were particularly important. Johann Bernoulli posed the famous problem of the baristochrome, in his journal Acta Eruditorum. The problem was sent to Newton, now warden of the Royal Mint. Some say this was done to embarrass him, but Newton immediately solved the problem.

The author concludes with a short account of Niels Henrik Abel's work, as a young boy, with a vastly more general problem, anticipating the modern theory of integral equations.