

## A BRIEF HISTORY

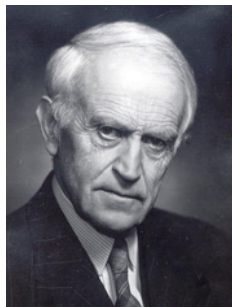
The Department of Mathematical Sciences at the Norwegian University of Science and Technology (NTNU) of today has its origin in the chair of mathematics at the Norwegian Institute of Technology (NTH), established at the foundation of the institution in 1910.

The first person to hold this chair was Richard Birkeland. He was appointed professor in 1910, as one of the very few professors associated with the institution from the beginning, and he gave the first lecture for the first group of students. His field of research was differential equations, but his main contribution in Trondheim was to get a teaching program in mathematics started. He was also rector (president) of the institution for a period. He stayed at NTH until 1923, when he left to take over a professorship at the University of Oslo.



Richard Birkeland

Birkeland was succeeded in 1924 by the number theorist Viggo Brun, who occupied the chair until 1946, when he too became professor in Oslo. Brun was renowned for important contributions to the theory of prime numbers. He had wide cultural interests, and was much appreciated by the students.



Viggo Brun

In 1937 an additional professorship in mathematics was established, with Ralph Tambs Lyche as the first holder. He had been associated with NTH from the start in 1910, first as a teaching assistant, from 1918 as docent (associate professor). He stayed at NTH until 1950, when following tradition he accepted a professorship in Oslo. His main



Ralph Tambs Lyche

field of interest was mathematical analysis, and while in Trondheim he wrote a text book "Matematisk Analyse" in three volumes, which was used as a standard text both at NTH and the University of Oslo for many years.

From the beginning the teaching duties at NTH consisted mainly of teaching a two-year mathematics program for engineering students, but soon also special courses were taught for students in their third year.

In 1922 the Norwegian Teachers College (NLHT, later AVH) was established, and from 1924 regular courses in mathematics were offered there, with Tambs Lyche as the main teacher. The NLHT underwent several metamorphoses. In 1968 the University of Trondheim (UNIT) was established through a merger of NTH, NLHT and the Museum of the Royal Norwegian Society of Science and Letters, and in January 1996 the university was reorganized to become NTNU.

In the years after World War II what may now be called the Department of Mathematics had a growth period, both in number of positions and in scope of activities. The number theorist Sigmund Selberg headed the department for many years. He was appointed professor in 1947, and he held this position until he retired in 1977.



Sigmund Selberg

During much of this period (1956–1974) the second professorship was held by the geometer John Olav Stubban, who was highly regarded as a teacher. (In 2001, a Stubban Mathematics Prize was established, based on Stubban's will and a generous donation by the Stubban family.) Several positions of what is now called amanuensis (assistant professor) were gradually added



John Olav Stubban

to the already existing professorships during this period. More advanced topics were included in the curriculum, and the program in mathematics at NLHT was extended.

In 1960 Werner Romberg was appointed to a new chair in applied mathematics, and he stayed for a ten-year period until he accepted a professorship in Heidelberg. He organized a teaching program in applied mathematics, and he and his successors built a strong research program in numerical analysis.



Werner Romberg

In 1965 Arnljot Høyland was appointed docent, later professor, of mathematical statistics. His effort to promote teaching of probability theory and statistics resulted in a great increase in faculty, research activity and courses in statistics.



Arnljot Høyland

For certain periods the numerical (and applied) mathematicians and the statisticians were organized in their own separate departments. The three mathematical sciences departments at NTH were joined together in a Department of Mathematical Sciences in January 1988.

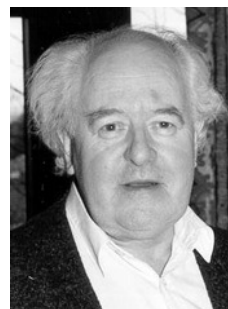
In the period up to 1965 the department also had the duty to give instruction in descriptive geometry. Ole Peder Arvesen was in charge of this activity from 1927, from 1939 as professor, until he retired in 1965. He was a distinguished figure both at the institution and in the city.



Ole Peder Arvesen

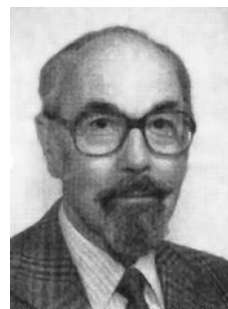
In 1965 the function theorist Haakon Waadeland, who had been a docent since 1957, was appointed professor and given the responsibility for the teaching of mathematics at NLHT. A separate department had been established, and in the following years its activities were rapidly increasing. First

general mathematics courses for scientists were consolidated, then advanced courses for mathematicians were introduced, and finally doctoral studies were established. The faculty expanded as the activities increased, and before the merger in 1997 it consisted of about 12 persons in permanent scientific positions.



Haakon Waadeland

In 1968 Henrik H. Martens began his work as professor at NTH. He was a function theorist, educated in the USA. In addition to his mathematical education he had a background in electrical engineering. He strongly promoted the idea of educating mathematicians with a technological profile. After some ad hoc activity in



Henrik H. Martens

this direction, a regular program in industrial mathematics for engineering students was established in 1982. This program flourished, and now about 40–50 students are admitted to the program every year. In addition a number of students with engineering background study for a doctorate in mathematical sciences.

In 1988 SIMa, a section of the Foundation of Scientific and Industrial Research (SINTEF) devoted to research in applied mathematical and statistical subjects, was established in close cooperation with the department.

During the last 30 years the research activities on an international level by the Trondheim mathematicians have increased dramatically. The faculty is strongly represented in the fields of algebra, analysis and geometry/topology as well as in statistics and numerical analysis. All the time there has been cooperation in teaching and research between the mathematical departments (at NTH and NLHT/AVH). In January 1997 the departments were merged into a single unit, the Department of Mathematical Sciences at NTNU. Since March 2001 the whole faculty and staff have been located together on the old NTH campus at Gløshaugen.