Gottfried Traugott Rüttimann—In Memorium
1941–1999

Fredi Rüttimann was born in the lakeside town of Thun in the canton of Berne on April 20th, 1941. What is possible in Switzerland, as in no other country, is the ability to trace one's forefathers with ease. In most cases it is discovered that they were farmers, and Fredi Rüttimann was, in this respect, no exception. Both of his paternal grandparents were from a small community in the canton of Aargau, not far from Zug, where they worked a farm, currently owned by his cousin. His father was trained as a mechanical engineer and acquired a garage in Thun, where he sold and repaired motor cars and motor cycles, in the days when the Norton, rather than the Honda, was at the top of the market. As was the case in those better days, his mother was totally absorbed in providing a stable home for her husband and three children, two girls and Fredi, who was the middle child. It is a popular misconception that Switzerland was totally unaffected by the World War of 1939–1945. However, although the largely agricultural nature of the country was a mitigating factor, there were still substantial shortages. Furthermore, since every man in Switzerland under the age of fifty is a member of the Army, most men spent long periods away from their families. Fredi's father was an Adjutant in the Supply Corps and spent much time on the banks of Bodensee, waiting for a German invasion. As a consequence, during his first years, he did not see as much of his father as he would have liked, and there is little doubt that, being the only son, he received more than a fair share of his mother's attention. In fact, as a child, he much enjoyed his own company, spending many hours constructing models and reading. By his own account, he remembered long family lunches on Sundays, family visits to country restaurants, and various mountain camps to which he was sent in the summer vacations. The Swiss go in for this latter activity in quite a big way, probably as preparation for life in the Swiss Army, in which similar activities take place annually. Whilst all these things were done with the best possible intentions and almost certainly helped to make Rüttimann the man he was, it cannot be said that they were regarded with much favour by the recipient.

Rüttimann's background was, therefore, very far away indeed from being academic. Indeed, it was assumed by his parents that, being the only son, he would take over his father's business, and there must have been increased pressure on him to do this after his father's untimely death from a heart attack when Fredi was nineteen years old. After attending elementary school and pre-gymnasium in Thun, and spending a year at the Collège St. Gingolph in the Valais improving his French, he embarked upon an apprenticeship, which involved his attending the City of Berne Technical School for four years. Much of the success of the Swiss economy is due to the seriousness with which the Swiss train those people who actually make things work, and it is certainly true that, in the environment in which he was raised, the successful completion of an apprenticeship would have been regarded as much more worthwhile than obtaining a doctorate.

It is not easy to discover exactly how a person with this academic background became such an outstanding mathematician. However, it can probably be traced to the Collège St. Gingolph, where, being required to attend mass daily, he was able to spend the time thinking about physics and mathematics. Certainly, during his years as an apprentice, he became bored with practical courses, and arranged to attend concurrently a private school, where he could further his interest in pure science. At the end of his apprenticeship in 1961, rather than returning to join his brother-in-law in the family business, he enrolled in the gymnasium at Berne and obtained his Matura. He attended the University of Berne as a student from 1962 until 1970. At that time he favoured theoretical physics over mathematics, and his studies were guided by Mercier, whose own interests included the mathematical foundations of quantum mechanics. Both his Diploma, accepted in 1968, and his Doctorate, accepted in 1970, were on the mathematical foundations of quantum mechanics, but, as time passed, his interest in pure mathematics increased. During the years from 1962 to 1971, he supported himself by teaching in the Dr. Feusi Gymnasium in Berne as well as giving courses and seminars in quantum mechanics at the University of Berne, where, in 1970–71, he was employed as a Research Assistant supported by the Swiss National Science Foundation.

His reputation as an expert in the connections between axiomatic physical theories and convexity theory was made in the early seventies. He was awarded a Canada Council grant to do research at the University of Calgary from 1971–1972, and then was 'head-hunted' to become a Research Professor at the University of Massachusetts at Amherst. At that time the Department of Mathematics and Statistics had a very large group of mathematicians working in and around the area, which they described as 'Empirical Logic'. There is no doubt that there was a fervour about the group that produced an atmosphere in which research thrived. The number of people involved was

so large that some are bound to be omitted from a list which includes, as members of the faculty, M. K. Bennett, Don Catlin, Tim Cook, Hans Fischer, Dave Foulis, Mel Janowitz and Charlie Randall, and a large number of visitors. The time that he spent in Amherst had a great effect upon Rüttimann, creating a strong affection for the United States and initiating many lifelong friendships. He and his fellow-Swiss Fischer spent many hours in trans-Atlantic communication in the years that followed. He was in Amherst from 1973 to 1977, and he may have stayed for a longer period had it not been for the fact that, because of a failure in the lines of communication, his visa was not renewed, and he was 'deported'. His former university was, however, more than pleased to take him back into the fold, and he rejoined the Institute of Mathematical Statistics in Berne, where he obtained his Habilitation in 1980 and where he remained for the rest of his life. His academic career in Berne was highly unusual in that he rose through the academic ranks simply because of his exceptional research record. His joint projects with Henri Carnal were supported annually by the Swiss National Science Foundation, and this allowed him to travel extensively, as well as to support his several doctoral students. His academic travels in the United States included periods at the University of Denver, the University of California at Irvine and the University of Virginia. He was a regular performer at international conferences, where the clarity, precision and elegance of his lectures were matched only by the smartness of his attire.

His mathematical interests were divided roughly into two parts. He maintained his original interest in measure-theoretic properties of lattices, logics and other structures, mainly on his own account, but also in collaboration with David Cohen, Tim Cook, Hans Fischer, Dave Foulis, Dick Greechie, Mirko Navara, and John Wright, and with his students Matthias Kläy, Christian Schindler and Lynn Krause. The second area of his research, to which he devoted an increasing amount of time, was in the functional analytic theory of Jordan algebras, Jordan *-triples and Banach spaces. In this he collaborated with the writer of this obituary and with Kevin McCrimmon, Sergei Vasilovsky and his student Daniel Lörch. There is no doubt that he felt that it was in this second area that he was making his most significant contributions to mathematics. He was an obsessive mathematician, never missing an opportunity, whether at an airport or on the ski-slopes at Kleine Scheidegg, to spend time thinking about his most recent problem. Since mathematics was his life's work and pleasure, he never entertained the thought of retirement. When he died on October 11th, 1999 as a result of an assault whilst on an academic visit to Prague, there were many projects left unfinished.

The facts about Rüttimann's early years and about his academic career do not present a full picture of the man. His family was a great influence in his life. He married, in 1967, Käthi Dolder, and they had two sons, Reto,

born in 1968 and Domenic, born in 1970. They formed a very happy family unit, and he was fortunate to have a wife who looked after most of the practical side of life, leaving him to concentrate on his research. In fact, upon his return from the United States, he eschewed much of modern living, failing to own a television set or a motor car. Strangely, when he was finally convinced that certain modern devices were essential, he adopted them with the passion of the convert. His television set and his sports-chassied BMW had all the latest features and attachments, and his laptop computer, which he kept with him at all times, had every possible piece of up-to-date software and hardware. Although mathematics was his passion, he had many other interests. He much enjoyed good food and wine, and his contribution towards research in the production of the perfect gin and tonic will be recalled by many of his colleagues. He was a heavy smoker and, despite the efforts of his doctors, he refused to reduce the number of cigarettes that he smoked, on the grounds that it would both change his character and affect his research. He loved music, particularly jazz and Irish and American folk music. His first purchase was a record by Louis Armstrong, and he held an extensive collection of the works of Charlie Parker. Having been taken by his father to see the Swiss Grand Prix in Berne, he retained an interest in Formula One Motor Racing, and he spent many Sundays glued to his television set, sometimes at highly unsociable hours of the day. He was a wonderful conversationalist in all four of the languages in which he was fluent, and had a very wide knowledge of many subjects, not all acquired from the pages of the New Yorker magazine, the jokes from which could occasionally be found pinned to his notice board. With the birth of his grandson Noël in 1995, Rüttimann became a traditional grandfather, and, for the first time, it was discovered that he could be distracted from mathematics.

The fact that he was able to change the course of his life in a very conservative society says something about the slightly rebellious nature of his character. He had no desire to become an officer in the Army, content to do his duty with the other ranks, and, indeed, enjoyed the time that he spent driving tanks and socializing with men from many different walks of life. As a young man, he had to work very hard indeed in order to achieve his aims, and, as a result, in spite of his great charm and joviality, remained fiercely competitive. He believed passionately in the value of mathematical research, particularly in that in which he was involved, but always found time to help students and other young mathematicians, and to pass the time of day with those whom he met who were not academics. He was very proud indeed to be one of the few mathematical recipients of a regular grant from the Swiss National Science Foundation, believing, probably erroneously, that his exceptional qualities were less well appreciated in Berne than they were elsewhere. He was not a member of any political party, but, despite the

comparative radicalism of his youth, in later years he had very little time for Socialists and Greens.

His close association with the writer began in a restaurant in Marburg in 1973, reached fruition in Berne in 1980, and culminated not only in successful mathematical collaboration but also in the deepest possible friendship. He spent at least a month each year in Oxford, where he felt completely at home. He was made a Fellow Commoner of Queen's College in 1989, an honorary post of which he was intensely proud. Upon the news of his death the College wrote to his widow in terms with which all who knew him could empathize:

> The many members of Queen's College who knew Fredi were shocked and saddened by the news of his death. He was very much part of Queen's and in the twenty or more years that he has made his regular visits to the College it was for everyone here always an 'event' when he arrived. As a mathematician he commanded our respect, as a person he inspired a deep affection. His geniality, and his unfailing courtesy and good humour, endeared him to all.

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