## LEO MOSER 1921-1970

Leo Moser's zest for living makes it almost impossible to believe that his death occurred over a year ago on February 9, 1970. Although the names of many people engaged in research often become well known in the scientific community by the quality of their work, few of them have had the warm and close personal contact Leo Moser established with the many hundreds of people interested in his discipline. Indeed, this is the sixth journal that has asked me to write a tribute to a man who had gained the respect of so many mathematicians located in the many different countries of the world.

Although born in Vienna in April of 1921, the Moser family moved to Canada early enough for him to obtain his elementary education in Winnipeg. After graduating from the University of Manitoba with a B.Sc. degree in Mathematics in 1944, he went on to an M.Sc. degree at the University of Toronto and a Ph.D. at the University of North Carolina. After spending a brief period doing teaching and research at the Texas Technical College, Moser began in 1951 his long association with the University of Alberta.

Leo Moser had mathematical talents that were unique among the many mathematicians I have known personally or through their published work. Foremost among these talents were intuition, insight, simplicity, ingenuity and clarity. Since Leo Moser and I worked together closely on research for a period of about five years, I can give personal witness to the contribution his unique abilities made to the solution of difficult mathematical problems. His knowledge of the many fields of mathematics and the unsolved problems of current interest in those fields never ceased to amaze me. Indeed, my own interest in asymptotic analysis stemmed from his vivid description of the type of work being done, and remaining to be done, in this particular branch of analysis.

Above all he demonstrated an amazing insight into the nature of the problem to be solved, and an amazing ability to analyse the most complex of mathematical problems, and by intuitive heuristic arguments outline ways in which they might be attacked. Quite often Moser was able to estimate accurately what the answer was likely to be. Although he suffered from a lack of knowledge of many of the high-powered tools of analysis, he compensated by the use of an ingenuity that enabled him to use elementary analysis with an affect that is rarely seen in the work of other mathematicians. In collaboration with others, his insight often added a real power to the high-powered tools of analysis mentioned above.

During his lifetime, Moser made contributions to more than one hundred research publications, mainly in the fields of number theory, graph theory, and
algebra. Since the importance of his work will speak for itself, it is not my intention to give a detailed assessment of the many facets of mathematics which were of interest to him during his lifetime. It is sufficient for me to say that the world of mathematics was enriched because a man called Leo Moser chose to lead an active mathematical life during the relatively short time he lived.

Without doubt, Leo Moser was one of the best teachers of mathematics the University of Alberta has ever had. Gifted with many of the attributes of a successful actor, he made mathematics a fresh and living subject for very large classes of students just beginning their mathematical studies. Moser's enthusiasm for his subject became obvious to anyone who heard him lecture, and his belief in the importance of mathematics was evident in every word he spoke. Although it would be false to claim he made mathematical converts of the majority of his students, it is not too much to say that Moser instilled an understanding of, and a respect for, the beauty and importance of his discipline.

Leo Moser had many interests other than mathematics, notably chess and magic. He held the Alberta Chess Championship for many years, and spent many hours playing chess with high school students. Often, he would play fifty simultaneous games, winning all but one or two, showing a type of mind possessed by a fortunate few. More important to him than the game itself was the opportunity that was created to discuss with young people the work of the University. There are literally hundreds of students who were influenced by him to continue their education beyond the elementary school level.

Although Moser suffered serious heart damage early in life, and was plagued with ill health most of his life, few people were aware of the handicap he carried every day of his life. He was uncomplaining, and never asked for special consideration nor sympathy because of his affliction.

About three years before he died, Moser was informed that he would not likely live more than two months because his heart damage had become so extensive. The only hope was an operation which he faced calmly with determination and courage. Although the operation was successful in changing the months he had to live into years, years he used to good advantage, it did not give him the longer life so many of us hoped he would have.

Moser was a warm person with a well-developed sense of humor. He had an infinite stock of amusing stories, and a huge storehouse of simple puzzles of both a mathematical and a nonmathematical nature. To spend time with him was doubly pleasant in that one always had a sense of learning and, at the same time, of being quitely entertained.

He loved people, and was prepared to give help wherever and whenever it was needed. His presence at the Summer Institutes of the Canadian Mathematical Congress always ensured an important contribution by these institutes to the mathematical welfare of Canada. He delighted in discussing mathematics and was prepared to share his ideas with anyone who cared to listen. Many of his ideas
were developed by those who did listen, and this was a source of joy to him throughout his life.
In addition to his mother and two brothers, Leo Moser is survived by his wife Eva, and four children, Barbara, Melanie, Cheryl, and David. There is nothing one can say to his family to help them carry the burden that has fallen on their shoulders. One does not lose a son like this, a husband like this, a father like this, or a brother like this, without knowing that the days to come will be different from the days that have passed. Leo Moser will be missed by his family, he will be missed by many people connected with the mathematical world or the University of Alberta, and he will be missed by me.
M. Wyman, President,

The University of Alberta


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