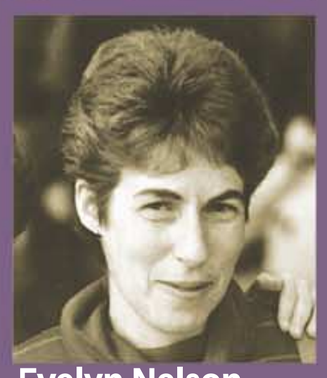
THE CMS KRIEGER-NELSON PRIZE

Cecelia Krieger
1894 — 1974



Evelyn Nelson
1943 — 1987

Each year, the Canadian Mathematical Society awards the CMS Krieger-Nelson Prize Lectureship for Distinguished Research by Women in Mathematics. The award honours Cecelia Krieger and Evelyn Nelson.

Born in Jaslo, Poland, Cecelia Krieger studied mathematics and physics at the University of Toronto beginning in 1920. In 1930, Krieger became the first woman – only the third person overall – to earn a mathematics doctorate from a Canadian University. After 12 years of lecturing in mathematics and physics at the University of Toronto, she became an assistant professor and taught there until her retirement in 1962. She is best known for her translation of Sierpinski's celebrated Introduction to General Topology (1934) and General Topology (1952).

Evelyn M. Nelson, the daughter of Russian immigrants, was born in Hamilton, Ontario, and began her studies at the University of Toronto in the Mathematics/Physics/Chemistry honours program, before transferring to McMaster University. She earned her Master's degree in 1967 and published her thesis, on the "Finiteness of semigroups of operators in Universal Algebra". Her 1970 Ph.D. thesis, completed just after the birth of her first child, examined "The lattice of equational classes of commutative semigroups". In the late 1970's, she began a study of algebraic problems arising in theoretical computer science; several of her papers appeared in computer science journals. From 1982 to 1984, she chaired the Computer Science Unit within McMaster's Mathematics Department.

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Katherine Heinrich

President, Canadian Mathematical Society (1996-1998)

Katherine Heinrich, *a combinatorist, was the first female president of the Canadian Mathematical Society. She currently holds the position of Vice-President Academic at the University of Regina.*

Katherine Heinrich says that:
"This poster features some of Canada's world-renowned female mathematicians and the significant role they have played in many different areas of mathematics, science and technology. Mathematics offers many excellent and exciting career opportunities for women."

WOMEN IN MATHEMATICS

WINNERS

1995
Nancy Reid

Nancy Reid explores the boundary between theoretical statistics and real-world applications.

Dr. Reid is a professor of statistics at the University of Toronto. She teaches both advanced statistical theory to graduate students and a course on "Lies, Damned Lies and Statistics" to first-year classes. Nancy Reid was the first women to receive the Presidents' Award from the Committee of Presidents of Statistical Societies and she was President of the Institute of Mathematical Statistics (1997).

Nancy Reid says that:
"Statistics is a great way to apply mathematics to a wide variety of areas of science and social science – problems in cancer treatment, climate modelling, educational testing, and many other fields. Finding the common thread in these problems is the challenge of theoretical statistics."

1996
Olga Kharlampovich

Olga Kharlampovich has concentrated on geometric and combinatorial group theory, algorithmic problems in groups, diophantine geometry over groups, and model theory.

Dr. Kharlampovich is a professor of mathematics at McGill University. She was awarded a gold medal from the Soviet Academy of Sciences for her undergraduate work in solving Novikov-Adian's problem to construct finitely presented solvable groups with undecidable word problems. Olga Kharlampovich received her Ph.D. from Leningrad University and her Doctorat d'État from the Steklov Institute in Moscow in 1990.

Olga Kharlampovich says that:
"One mystery about mathematics is, perhaps, that most mathematical abstractions turn out to have physical applications. Mathematics is alive, ever changing, and forever incomplete."

1997
Cathleen Synge Morawetz

President, American Mathematical Society (1995-1997)

Cathleen Synge Morawetz studies the interface between partial differential equations and their application in fields such as aerodynamics, acoustics and optics.

Born in Canada and educated at the University of Toronto, Dr. Morawetz is Professor Emeritus of Mathematics at the Courant Institute of Mathematical Sciences. Cathleen Synge Morawetz was the first woman to be honoured as the CMS Jeffery-Williams Prize Lecturer in 1984 and was the J. W. Gibbs Lecturer of the American Mathematical Society in 1980. She has received honorary degrees from the University of Waterloo and from the University of Toronto. Cathleen Morawetz is a former Member of the Board of Trustees of Princeton University and the Sloan Foundation.

Cathleen Synge Morawetz says that:
"Mathematics is such an amazing and beautiful mixture of tool and art that everyone should go as far as they can with it. Those of us lucky enough to make a profession of mathematics should stretch ourselves to appreciate it from its furthest abstractions to its most concrete applications."

1998
Catherine Sulem

Catherine Sulem concentrates on solving problems in the field of partial differential equations arising from fluid mechanics, nonlinear optics and plasma physics. Using both analytic and numerical methods, she has contributed greatly to our understanding of singularities in models of wave propagation.

Dr. Sulem is a professor of mathematics at the University of Toronto. She received a Doctorat d'État from the Université de Paris-Nord in 1983. A multi-talented woman, Catherine Sulem plays the violin professionally.

Catherine Sulem says that:
"Nonlinear waves are fascinating because of the broad variety of underlying dynamical phenomena ranging from fluids and plasmas to chemical and biological systems."

1999
Nicole Tomczak-Jaegermann

Nicole Tomczak-Jaegermann has completely solved, or made essential contributions toward several long-standing problems in the geometry of Banach spaces.

Dr. Tomczak-Jaegermann is a professor of mathematics at the University of Alberta and a Fellow of the Royal Society of Canada. She was educated and received all of her degrees in Warsaw, Poland. Nicole Tomczak-Jaegermann is a world-renowned leader in geometric functional analysis and Banach space theory and she has given invited addresses to the Canadian Mathematical Society, the American Mathematical Society and the International Congress of Mathematicians in Berlin – one of the highest accolades a mathematician can receive.

Nicole Tomczak-Jaegermann says that:
"Mathematics is about abstract patterns and not really about numbers at all. It is an abstract activity like music, but it is also a base for many modern technologies."

2000
Kanta Gupta

Kanta Gupta is a leading expert in the field of combinatorial group theory, specializing in the areas of representation theory of relatively free groups, automorphisms of groups, and varieties of groups.

Dr. Gupta is a professor of mathematics at the University of Manitoba. A graduate of the Australian National University, Canberra, where she earned M.A. [Hons.] and Ph.D. degrees. She also holds a Masters Degree from the Aligarh University in India. Kanta Gupta has held numerous visiting positions around the world, and is a Fellow of the Royal Society of Canada, Canada's most prestigious academic and scientific body.

Kanta Gupta says that:
"Mathematics is a universal language. It brings music within ourselves. Its pursuit is the power of the human mind and is a source of endless intellectual stimulation and pleasure."