



***The 33rd Jeffery-Williams Prize Lecture
Le 33ème Prix de conférence Jeffery-Williams***

Citation

David Boyd's research interests are very broad. He has made important contributions in classical analysis, number theory, geometry, probability and computational mathematics. David's work on Salem and Pisot-Vijayaraghavan numbers revitalized the subject. In particular, he developed beautiful methods for computing small Salem numbers and for determining all P.V. numbers in intervals of the real line. David Boyd has obtained sharp bounds for various geometrical packing constants and for the norm of a factor of a polynomial in terms of the norm of the polynomial itself.

David W. Boyd
University of British Columbia

Perhaps his most striking work has involved the study of the Mahler measure of polynomials. He was the first to point out the link between Lehmer's conjecture and Mahler's measure for polynomials in several variables. Recently he has discovered an astonishing connection between Mahler's measure and special values of L-functions, and this promises to be a central and very fruitful area for further research.

Le spectre de recherche de David Boyd est très large. Ses contributions à l'analyse classique, à la théorie des nombres, à la géométrie, à la théorie des probabilités et aux mathématiques algorithmiques sont considérables. En particulier, ses travaux sur les nombres de Salem et de Pisot-Vijayaraghavan ont donné un nouveau souffle au domaine. Il a notamment élaboré de puissantes méthodes de calcul des petits nombres de Salem et qui lui ont permis de déterminer de tous les nombres de P.-V. dans des intervalles de la droite réelle. David Boyd a obtenu des bornes précises pour des constantes povenant de problèmes d'empilement et pour la norme d'un facteur d'un polynôme en fonction de la norme du polynôme lui-même.

L'aspect le plus spectaculaire de ses travaux concerne toutefois l'étude de la mesure des Mahler polynômes. En effet, il a été le premier à établir un lien entre la conjecture de Lehmer et la mesure des Mahler polynômes en plusieurs variables. Dernièrement, il a découvert un rapport surprenant entre la mesure de Mahler et certaines valeurs spéciales des fonctions L, ce qui initie un domaine de recherche important et prometteur.

Biographical Information

Dr. David Boyd obtained his B.Sc. in mathematics from Carleton University in 1963, and his Ph.D. from the University of Toronto in 1966, under the direction of P.G. Rooney. He taught for one year at the University of Alberta after obtaining his doctorate, and then spent four years at the California Institute of Technology before arriving at U.B.C. in 1971, where he has been ever since. Dr. Boyd attained the rank of full professor in 1974. He was a member of the Council of the CMS. from 1973 to 1975 and was Vice President of the Society from 1979 to 1981. He served as an associate editor of the Canadian Journal of Mathematics from 1981 to 1991. Dr. Boyd was the Steacie Prize winner in 1978, the Coxeter-James Lecturer of the C.M.S. in 1979, and was elected to fellowship in the Royal Society of Canada in 1980.

The Jeffery-Williams Lectureship was inaugurated in 1968 to recognize mathematicians who have made outstanding contributions to mathematical research and is presented in conjunction with the Canadian Mathematical Society's Summer Meeting.

La conférence Jeffery-Williams, créée en 1968, rend hommage aux mathématiciens qui se sont distingués par leur apport exceptionnel à la recherche en mathématiques. Elle est présentée dans le cadre de la réunion d'été de la Société mathématique du Canada.

Recipients / Récipiendaires

2001	David W. Boyd	1988	J. Lambek	1977	G. Duff
1999	John Friedlander	1987	L. Nirenberg	1976	M. Wyman
1998	George A. Elliott	1986	C. Herz	1975	N.S. Mendelsohn
1997	Steve Halperin	1985	L. Siebenmann	1974	H.J. Zassenhaus
1996	Mark Goresky	1984	C.S. Morawetz	1973	H.S.M. Coxeter
1995	Robert V. Moody	1983	R.H. Bott	1972	P.J. Davis
1994	Donald Dawson	1982	J. Lipman	1971	W.T. Tutte
1993	J.G. Arthur	1981	J.E. Marsden	1970	W.A.J. Luxemburg
1992	I. Sigal	1980	R.P. Langlands	1969	R. Pyke
1991	P. Lancaster	1979	I. Halperin	1968	I. Kaplansky
1990	R. Steinberg	1978	G. Gratzner		
1989	E.C. Milner				