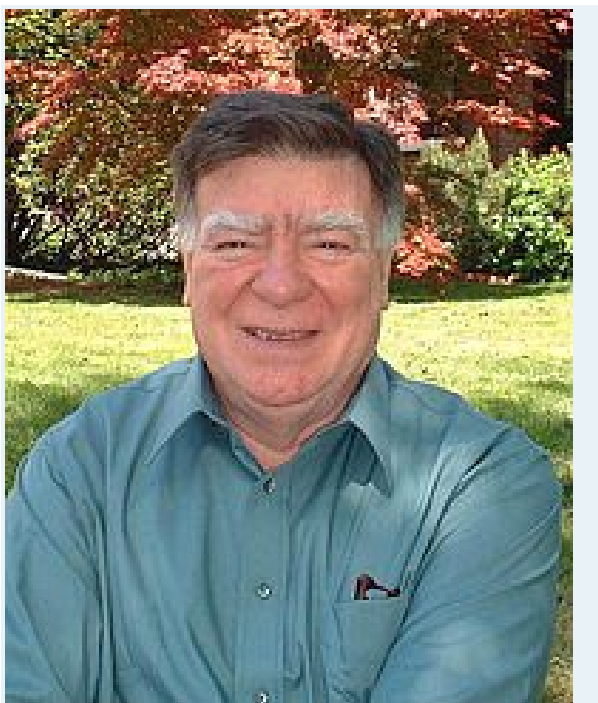


The 2005 Felix Klein Award

International Commission on Mathematical Instruction, ICMI

The second Felix Klein Medal of the International Commission on Mathematical Instruction (ICMI) is awarded to Professor Ubiratan D'Ambrosio, Brasil. This distinction acknowledges the role Ubiratan D'Ambrosio has played in the development of mathematics education as a field of research and development throughout the world, above all in Latin America. It also recognises Ubiratan D'Ambrosio's pioneering role in the development of research perspectives which are sensitive to the characteristics of social, cultural, and historical contexts in which the teaching and learning of mathematics take place, as well as his insistence on providing quality mathematics education to all, not just to a privileged segment of society. His role in promoting mathematics education research and development in Latin America, both as regards priorities and content and as regards institutional and organisational frameworks, can hardly be over-estimated. His focus on providing graduate and post graduate programmes for young researchers exemplifies his contribution.



Ubiratan D'Ambrosio

International Commission on Mathematical Instruction, ICMI

<https://www.mathunion.org/icmi>

Tomado de <https://www.mathunion.org/icmi/awards/past-reipients/2005-felix-klein-award>

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Ubiratan D'Ambrosio was born in 1932 in São Paulo, Brazil. He was trained as a mathematician in Brazil and Italy and obtained his doctorate in science at the University of São Paulo in 1963. Until 1972 he spent most of his time in the USA (Brown University, SUNY/Buffalo) where he worked on Calculus of Variations and Measure Theory, while at the same time developing an increasing interest in interdisciplinary work and postgraduate programmes. Upon his return to Brazil in 1972, when he took up the post of director of the Institute of Mathematics, Statistics and Computer Sciences at the State University of Campinas (UNICAMP), Ubiratan D'Ambrosio's endeavour was to include new topics such as mathematical logic, mathematical modelling, bio-mathematics, computational linguistics and artificial intelligence as part of the Institute's research profile along with more classical areas. Later, he broadened his contribution to include mathematics education. In 1975 he was involved in creating a Masters programme in the teaching of sciences and mathematics at the UNICAMP.

During the 1970's, Ubiratan D'Ambrosio gradually moved into the field of mathematics education, partly as a result of his involvement in the activities of the Inter-American Committee on Mathematics Education (IACME/CIAEM), of which he was later to become Vice-President and President. This gave rise to a variety of contacts with international protagonists in mathematics education such as Luiz Santaló, Hans Freudenthal, and Ed Begle, contacts which were greatly extended and amplified by his attendance at the International Congresses on Mathematical Education (ICMEs), in particular ICME-3, held in Karlsruhe, Germany in 1976. For that Congress he was in charge of a panel working on the theme "Why teach mathematics?", the report of which ("Overall goals and objectives for mathematical education") was published - with D'Ambrosio as the author - in Unesco's *New trends in mathematics teaching*, Vol. IV (Paris, 1979). At ICME-3 he raised, as one of the very first mathematics educators to do so, socio-cultural questions related to research in mathematics education while pointing to the links between these questions and the history of mathematics and the other sciences in different contexts.

Ubiratan D'Ambrosio was elected Vice-President of ICMI for the term 1979-1983, in which capacity he helped found the African Mathematical Union and the African Society for the Advancement of Science. When his term was over he took up office as the chair of the International Study Group of the Relations between History and Pedagogy of Mathematics. As a result of his interest in the social and cultural conditions for mathematics education, in particular as regards the nature of mathematical knowledge in different cultures at different times, Ubiratan D'Ambrosio began to develop what is internationally his best-known contribution to the field of mathematics education, the idea of ethnomathematics. In 1978 he wrote a paper on the mathematical knowledge and practices of native American cultures, took part in a Unesco conference in Khartoum, Sudan, on developing mathematics in third world countries, and participated in a conference "Mathematics and the Real World" at Roskilde University, Denmark. Probably the first international presentation of his ideas concerning ethnomathematics, including a sketch of its development into a programme of research and activity, was Ubiratan D'Ambrosio's plenary lecture "Socio-Cultural Bases for Mathematical Education" at ICME-5 in Adelaide in 1984. Soon after came a series of publications that developed the initial ideas in greater detail, and in 1985 he co-founded the

International Study Group on Ethnomathematics. He was the Vice-President of the study group 1988–1996. Since its inception, ethnomathematics has continued to grow as a field of research and development and has exerted considerable influence on mathematics education in several continents, above all in Latin America and Africa.

Today, Ubiratan D'Ambrosio is a very active Emeritus Professor at UNICAMP while also teaching at several other universities in São Paulo in postgraduate programmes of mathematics education and the history of science. He also continues to do research in ethnomathematics and related areas.

Ubiratan D'Ambrosio belongs to a generation that helped to found the field of mathematics education. His contribution to research is essentially as a philosopher – in the classical broad sense of that word – of mathematics education reflecting on its role in a complex world characterised by unrest and by an uneven distribution of goods and privileges across regions, countries, and societies. By focusing his attention on developing cultures, Ubiratan D'Ambrosio broadened our conception of mathematics education. More than that, he has helped to open the eyes of the mathematics education community to an understanding of how mathematical ideas are generated and how they evolved through the history of mankind. This work made a significant contribution to our appreciation of the field of scientific invention and its relation to ad hoc practices that occur in different cultures and subcultures. His contribution has played a key role in legitimating alternative forms of mathematical activity and in elaborating the now-familiar idea that the quasi-mathematical knowledge of the learner can be built upon rather than rejected.