Introduction of Professor Mischa Cotlar to the National Academy of Exact Sciences of Argentina

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It is a particular pleasure for me to introduce to this Academy its new member, Dr. Mischa Cotlar, who is not only an old friend of mine—our friendship spans more than forty years—but also an admired colleague, as well as a musician, a pianist.

Dr. Cotlar was born in Sarney, Ukraine, in 1913, and emigrated to Uruguay in the late twenties. He lived in Montevideo several years, earning his living as a professional pianist. In 1939, already a mature mathematician, he moved to Buenos Aires, and started his public mathematical career with the presentation of a paper, "Théorie d'Anagènes," at an international congress in Bordeaux. This work was later published, in Spanish, in *Anales de la Sociedad Cientîfica Argentina*. In Buenos Aires, Cotlar began a stage of intense and uninterrupted mathematical activity, participating in the meetings of the *Unión Matemática Argentina*, as well as in the seminar directed by Professor Rey Pastor, and publishing in local and foreign mathematical journals.

Mischa Cotlar was an autodidact. This is why he did not have diplomas of any kind. This lack created bureaucratic problems that blocked his access to teaching positions in our universities. His only two appointments during that period were as "Investigator" at the Universities of La Plata (1946) and Buenos Aires (1948). This obstacle was happily overcome for the benefit of Argentine mathematics in 1953.

It is interesting to recall how this happened. The famous American mathematician Marshall Harvey Stone, son of the also famous American jurist Harlann Fiske Stone, visited Argentina several times after 1943, and he met Cotlar. When appointed Chairman of the Department of Mathematics at the University of Chicago, to which he managed to attract several of the greatest luminaries of contemporary mathematics, Professor Stone urged Cotlar to apply for a fellowship and visit Chicago. Cotlar received the Guggenheim Fellowship and went to the United States.* The University of Chicago, with its characteristic flexibility, discarded all the encumbering formalities and rapidly gave him the Doctorate in Philosophy in Math-

*After being recommended to the Guggenheim Foundation by Professor George Birkhoff, Cotlar went first to Yale University, where he spent one semester and became acquainted with Professor Katutani and other mathematicians. It was thanks to Professor Stone's help that he had his fellowship renewed in order to attend the University of Chicago, where he could work toward a doctorate. [Editor]

ematics. This was one of the important services to Argentine mathematics done by that department of the university where, the presence of Argentine mathematicians has since been, but for brief periods, a constant feature. Cotlar returned to Argentina with his Ph.D. and the country derived the benefits of having him teaching at the University. In 1953 he was appointed Director of the Instituto de Matemática of the Departmento de Investigación (DIC), at the Universidad de Cuyo, until it was closed in 1956. That same year he was appointed Full Professor of Mathematics at the Universidad de La Plata, and in 1957 he joined the faculty of the Department of Mathematics of the School of Sciences of the Universidad de Buenos Aires, where he became Professor Plenario. In 1966 he resigned his position after the events that disrupted that school, and went to teach at Rutgers University (1967–1971) and universities of Nice (1969) and Central de Venezuela (1971) which he joined permanently in 1974 and where he continues with his mathematical activity today.

Dr. Cotlar's bibliography includes eight books and monographs and more than eighty articles published in scientific journals. He has been widely acknowledged and rewarded. He has received among others, the Premio Nacional de Ciencias, of the CONICIT (Consejo Nacional de Investigaciones Científicas y Técnicas) from Venezuela, the Premio Waissman of our CONICET and the Premio de la Academia de Ciencias of Madrid.

His contributions are, for the greatest part, in the area of Analysis, and touch a wide variety of chapters of this discipline, as lattice theory, the theory of semi-ordered groups, the theory of integration, ergodic theory, Banach algebras, the theory of normal families of functions, potential theory, Toeplitz kernel theory, and many more. Many of these studies were made in collaboration, a fact that underlines his generosity and the pure scientific interest that inspires his work. Among his collaborators are his wife, Yanny Frenkel, and Rodolfo Ricabarra, Cora Sadosky, Rodrigo Arocena, Eduardo Zarantonello, Beppo Levi, Rafael Panzone, and Juan Carlos Vignaux.

Dr. Cotlar's mathematical work has very singular characteristics. One is its insights, bringing to light the deep roots and motivations of theories and theorems. The other is the vision that uncovers links and unsuspected relations between subjects that apparently have no connection at all. It is for these characteristics, I believe, that his works have a very definite taste of philosophical essays.

Examples of this are the four consecutive papers that appeared in the *Revista Matemática Cuyana, volume 1 (1955), Fascículo 2.* In one of them, the result now known as Cotlar's Lemma shows the reason why, independently from Fourier Theory, the Hilbert Transform is bounded in L^2. In another of those papers, he gives the unified treatment of the Hilbert Transform and the Ergodic Theorem, which is known as the Principle of Transference in modern ergodic theory.

Finally, I want to call attention to the fact that some of Cotlar's results, published in journals of little accessibility and slow distribution, have been named after other mathematicians that discovered them independently but years after him. One such example is the theorem of representation of σ-Boole algebras as a σ-algebra of sets modulo an ideal of "null" sets, which today is known as the Loomis–Sikorski theorem.

Dr. Cotlar, we congratulate ourselves for your incorporation into this Academy. The institution not only is enriched by your presence, but is also strengthened by your prestige. Thank you, Dr. Cotlar.

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