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Luigi Amerio

Luigi Amerio was born on the 15th August 1912 in Padua. His father, Alessandro Amerio, enjoyed a long tenure as Professor of Physics at Pavia University followed by a period at the Polytechnic Institute of Milan.

He graduated in Electric Engineering from the Polytechnic Institute of Milan presenting a dissertation on connecting electrical lines, supervised by Prof. Lori (1935) and then in Mathematics from the University of Milan with a dissertation on Laplace Transform supervised by Prof. Ascoli (1936). He was appointed Assistant Professor at Milan and later moved to Rome.

He studied under L. Tonelli and then joined the team of M. Picone where he met R. Caccioppoli and C. Miranda, and at a later date G. Fichera; with these last two mathematicians he formed a lasting friendship.

In 1947 he became Full Professor in Mathematical Analysis at Genoa University. In 1949 he moved to the Polytechnic Institute of Milan, where he became Full Professor in Mathematical Methods for Engineering in 1980 and Emeritus Professor in 1987.

At the beginning of his career Amerio was interested in the use of the Laplace Transform to resolve PDEs and the results he obtained in this field are cited in all literature on this subject. He then began to study Picone's theories concerning the solution of PDEs by a series of eigenfunctions; his results on the biLaplacean operator are considered outstanding. In the early Fifties, he had a leading role in the dissemination of Schwartz's theory of distribution throughout Italian mathematical analysis. During his time at the University of Genoa he organized (together with E. Magenes and G. Stampacchia) a series of lectures on Schwartz's theory, published by Rendiconti del Seminario Matematico-Fisico of Milan. From the late Fifties to the end of the Sixties, he developed the theory of almost periodic solution of evolution PDE's and obtained remarkable results concerning the wave and Schrödinger equations. He was responsible for creating an important school of thought on this matter, as demonstrated by the book published together with G. Prouse, *Almost Periodic Functions and Functional Equations*, which is considered a textbook of fundamental importance on the subject.

During the Seventies he became interested in problems regarding the string equation, and together with G. Prouse he provided a solution. This solution has withstood the test of time for thirty-five years and the results obtained by Amerio and Prouse remain true.

He demonstrated a particular affection for this Academy, of which he had been a member since 1979. He was also a fellow of the Accademia Nazionale dei Lincei, Accademia delle Scienze di Torino, Istituto Veneto and Istituto Lombardo, of which he was also president. He was a great gentleman and scholar, not only a great mathematician but also a man of profound culture.

His passing away on the 27th September 2004 deprived his students of an outstanding example of a man who had devoted his life to science.

The Accademia Nazionale delle Scienze detta dei XL dedicates this volume, edited by U. Mosco, E. Vesentini and myself, to his memory.