

## Nicolae Dinculeanu, in memoriam

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**Abstract:** Professor Nicolae Dinculeanu was one of the most important Romanian mathematicians. Besides his impressive researches as a leading specialist in vector measure theory, his didactic activity remains peerless.

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Professor Nicolae Dinculeanu was one of the most important Romanian mathematicians. Besides his impressive researches as a leading specialist in vector measure theory, his didactic activity remains peerless. The present paper is dedicated with love and admiration to my beloved professor.

1. Let us begin with a short biography.

Nicolae Dinculeanu was born at February 26, 1925, in Padea, Dolj county. After graduating the Military High School “D.A. Sturdza” in Craiova, he became a student of the Artillery Officers High School in Craiova, becoming second lieutenant after graduation.

Afterwards, Nicolae Dinculeanu, who is both mathematician and engineer, studied in parallel Mathematics at the University of Bucharest (1946-1951) and Electrotechnics at the Polytechnical University of Bucharest (1945-1950).

Dedicated to Mathematics, Nicolae Dinculeanu began his didactical activity in 1950 at the Faculty of Mathematics and Physics, University of Bucharest, continued in some other university schools in Bucharest and finally (1954) became member of the Mathematical Analysis Chair of the Faculty of Mathematics and Physics (chief of chair - Miron Nicolescu). He remained member of this chair until 1976, when he left Romania and remained in the USA.

During this time he became lecturer (1951), associate professor (1960) and professor (1966). He taught especially Mathematical Analysis, Functional Analysis and Measure and Integration Theory (the last topics being the subject of a very much appreciated special course - the equivalent of the nowadays master course).

2. Concerning the didactical activity of professor Nicolae Dinculeanu, one can say a lot of nice things (and this pertains especially to someone like me, a former student and doctoral student).

Those who were fortunately enough to have been his students will always remember his impeccable and noble appearance, the scientific accuracy of his lectures, the outstanding speech in front of the audience and, last but not least, his remarkable sense of humour.

Today, when we are witnessing a quasi-general abasement of the act of teaching (academic attitude, academic content and manner of teaching), apparitions similar to Nicolae Dinculeanu are more and more a *rara avis*.

Also within the framework of the didactical activity of professor Nicolae Dinculeanu, we lay stress upon three more aspects. The first one pertains to the high-school textbook "Elements of Mathematical Analysis" written jointly with professor Eugen Radu.

This famous textbook (it firstly appeared in 1959 and was subject to many successive reprintings) was the first rigorous Mathematical Analysis high-school textbook in Romanian (i.e. written in the spirit of epsilon-delta). Many people say that this textbook has, up to now, no equal in Romanian literature.

The second aspect of the didactical activity of professor Nicolae Dinculeanu which we mention pertains to the (also famous) university textbook "Mathematical Analysis" written jointly with professors Miron Nicolescu and Solomon Marcus (also subject to many successive reprintings).

This textbook has been (and is still) used by many generations of students. We feel obliged to mention the fact that, after 1976, when Nicolae Dinculeanu definitively left Romania, the communist regime decided to permit a new printing of the textbook, but without the names of the authors on the cover (especially Nicolae Dinculeanu). This is an example of a book without author - maybe the Holy Spirit is the author...

The third aspect of the didactical activity of professor Nicolae Dinculeanu to which we refer pertains, of course, to the very much appreciated lectures at various American and foreign universities, together with his activity of doctoral supervisor, all this during a very long period of time, after 1976.

3. The main domain of scientific interest of professor Nicolae Dinculeanu is Measure and Integration.

To be more precise, we speak about Vector Measures and Vector Integration, within the general framework of Functional Analysis. Nicolae Dinculeanu is one of the world leaders in the domain of Vector Measures and Integration. His famous monograph "Vector Measures" (Veb Deutscher Verlag der Wissenschaften, Berlin, 1966 and Pergamon Press, Oxford, 1967) is, perhaps, the most authoritative text in

the domain. We mention other two monographs of professor Nicolae Dinculeanu: “Integration on Locally Compact Spaces” (Noordhoff International Publishing, Leyden, 1974) and, especially “Vector Integration and Stochastic Integration in Banach Spaces” (John Wiley & Sons, Inc., 2000).

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