

## ***Academician RADU MIRON at ninety***

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The academic community from Iași together with the Romanian mathematicians, as well as many geometers around the world will enjoy to celebrate in 2017 the 90-th anniversary of Academician Radu Miron.

His vast and compact scholarly work has brought him international recognition and has established him as a leader of the Romanian school of geometry.

A remarkable gifted professor, endowed with the grace of speaking, he has left an undeniable mark upon numerous generations of mathematics teachers. Being highly concerned with teaching geometry at all levels, he wrote books for pupils and students, as well as monographs having a high scientific level meant for researchers. He supervised 30 Ph. D. students, thirteen of which were from abroad: Japan, Italy, Hungary, Vietnam.



Academician Prof. Dr. Radu Miron was born at Codăești, in Vaslui County on October 3, 1927. He attended the courses of the primary school in his native village. Then he finished his high school studies at the technical school in Bîrlad. In 1948 he enrolled at the Faculty of Mathematics and Physics of the "Al.I. Cuza" University in Iași. Here he drew the attention of the famous and exigent teaching staff, so that, at the beginning of the 3-rd year he was appointed instructor and shortly afterwards he was promoted to assistantship. A year after his graduation from the faculty he started preparing his Doctor's Degree - the chosen specialty being Mechanics - at the Mathematical Institute of the Romanian Academy, the Iași branch, his main advisor being academician M. Haimovici. This way he started his scholar activity, which will recommend him worldwide as an extremely valuable mathematician. Steady and full of energy, he has gone through the stages of a remarkable scientific and didactic career. In 1956 he was Assistant Professor at the Faculty of Mathematics and Physics and senior researcher at the Mathematical Institute of the Academy. The following year, he received his Ph.D. in the field of Physics and Mathematics, and in 1963 he was Associate Professor at the Faculty of Mathematics and Mechanics of the University of Iași and the head of a department at the Mathematical Institute of the Academy. The same year he was awarded the Ministry of Education prize for his scholarly work. In 1965 he became full Professor at the Faculty of Mathematics. Between 1972 and 1976 he was the dean of the Faculty of Mathematics. Since 1972, he has been scholarly advisor for Ph.D. Thesis. As the head of the Department of Geometry for several years and member on the faculty executive council, he has brought a decisive contribution to the proper carrying out of the activity in the faculty, as well as to the progress of the Romanian school of Geometry. In 1991 he was elected as member of the Romanian Academy, the highest recognition which a scholar may receive in our country. He retired from Faculty of Mathematics in 1997, receiving the homage of his colleagues and former students, but he continued to act as Consulting Professor in Faculty of Mathematics, as Full Professor at the private university "P. Andrei" from Iași, and as a researcher at the Mathematical Institute "O. Mayer" of the Romanian Academy. He was also involved in the political and social life at the level of the Iași County.

Professor Radu Miron started his scientific activity at the great school of the Iași Mathematics Seminar, in a period when its founders, the Academicians Al. Myller and O.

Mayer, were still active. His original scholarly work falls within three main fields: differential geometry, applications of differential geometry, the basic elements of geometry and algebra.

Reviewing the almost three hundred titles that have been published among them being 35 textbooks, books and monographs, one can clearly perceive the coordinates of evolution of the scientific and didactic thinking of Professor Radu Miron.

He started with the study of the geometrization of the nonholonomic mechanical systems with scleronomic links and solved in his Ph. D. Thesis a problem that has been raised by E. Cartan. In connection with this, he studied, as well, nonholonomic manifolds.

In 1960 Professor Radu Miron's research turn to a new trend. He studied the so-called Myller configurations. The results were presented in a monograph that received the *Gh. Tzitzeica prize* of the Romanian Academy. Then he brought significant contribution to the theory of Weyl, Norden and conformal symplectic spaces.

The researches in Finslerian geometry and its generalizations that Professor Radu Miron has introduced in Romania have brought him many satisfactions and successes. In 1974 he comes to Finsler spaces with an outstanding contribution by the building of a field of orthonormal frames intrinsically associated to a  $n$ -dimensional Finsler space. It was called *the Miron frame* by Prof. Dr. Makoto Matsumoto from Japan, in his monograph devoted to Finsler spaces.

Professor Radu Miron initiated in 1980 at the University of Brasov *The First National Seminar on Finsler Geometry*. This was held every two years ever since. In these meetings, Prof. Radu Miron presented his main discoveries: generalized Finsler metrics, Lagrange spaces, generalized Lagrange spaces, Hamilton spaces, as well as a geometry of the total space of a vector bundle based on the use of a nonlinear connection. Turning on the applications in Theoretical Physics he developed a Finslerian Theory of Relativity and published at the Romanian Academy in 1987 the monograph *Vector Bundles. Lagrange Spaces. Applications to Relativity*, written together with M. Anastasiei.

Since 1988 Professor Radu Miron concentrates much more on applications of the theory of Lagrange spaces and of generalized Lagrange spaces to Theoretical Physics. These applications were included in the book *The Geometry of Lagrange Spaces: Theory and Applications* (R. Miron, M. Anastasiei, 1994), published by Kluwer Academic Publishers.

He continued with a deep study of the higher order Lagrange spaces. This study was extended to two monographs: *The Geometry of Higher Order Lagrange Spaces. Applications to Mechanics and Physics* (R. Miron, 1997) published by Kluwer Academic Publishers, and *The Geometry of Higher Order Finsler Spaces*, published by Hadronic Press in 1998. In 2001 he published also in Kluwer the monograph *The Geometry of Lagrange and Hamilton spaces* in collaboration with D. Hrimiuc, H. Shimada and V. S. Sabău. In 2007 his book titled *Finsler-Lagrange Geometry. Applications to dynamic systems* jointly written with I. Bucătaru has been published by the Romanian Academy.

Professor Radu Miron was invited to lecture by the well-known institutions from France, Great Britain, the former Soviet Union, Italy, Germany, Hungary, Yugoslavia, and Japan.

Being ninety years old, the Academician Radu Miron is a prominent personality of the Romanian Education in Mathematics. He received the title of *Doctor Honoris Causa* from the universities from Constanța, Craiova, Bacău, Oradea, Galați and Tiraspol. Also, he received diplomas of excellence from: The Romanian Ministry of Education, The University *Al.I. Cuza* of Iași, The University *P. Andrei* from Iași. He is a honorary member of the Academy of Sciences from the Republic of Moldova and Emeritus Professor of the *Al.I. Cuza* University of Iași. In

2003 he received the *Opera Omnia* award from the Romanian National Council for Scientific Research and the *V. Pogor* award from City Hall of Iași.

Academician Radu Miron was celebrated at his 70-th, 75-th, 80-th and 85-th anniversaries by Symposiums and International Conferences organized in his honor. These Conferences were devoted to the main field in that he is interested: Finsler, Lagrange and Hamilton geometries and their applications to Mechanics and Physics. Reputed Romanian journals dedicated to him special volumes. The speeches and the messages occasioned by his anniversaries were published in two volumes edited by Prof. Dr. Mihai Anastasiei (see [1], [2]). These volumes comprise as well a broad and minute description of Professor Miron's contribution in the field of Mathematics, the list of his publications, the text of the speeches held on the occasion of his reception to the Romanian Academy, some prefaces of his books and some of his papers.

Academician Radu Miron was the first President of the **Balkan Society of Geometers** (in brief, B.S.G.), established on 16 December 1994 at Aristotle University of Thessaloniki, Greece), and further became Honorary president. With all his heart, he supported the following B.S.G. events: organizing Conferences of *Differential Geometry, Dynamical Systems and their Applications*; publishing scientific works at the Editorial House of B.S.G. *Geometry Balkan Press* - which yearly issues four scientific journals in Mathematics. Geometers from all over the world recognize Radu Miron as a fruitful mathematician and model of absolute dedication towards the development of the Romanian Differential Geometry School.

*Dear Professor Radu Miron, Happy Birthday to You!*

## References

- [1] *The Mathematician Radu Miron. His work and life*, (Ed.: Mihai Anastasiei). Geometry Balkan Press, Bucharest 1998, 170 pp.
- [2] *The Mathematician Radu Miron. His work and life at 75th anniversary*, (Ed.: Mihai Anastasiei), "Al.I.Cuza" University Press, Iași, 2003, 180 pp.