## PROFESSOR DR. GHEORGHE ATANASIU



1939-2014

Professor Gheorghe Atanasiu was born on August 23, 1939, in Bacău-Romania.

He attended G. Bacovia high school in Bacău, which he graduated in 1955; afterwards, he enrolled in the Faculty of Mathematics and Physics of «Al. I. Cuza» University of Iași, which he graduated in 1961, being subsequently hired as a teaching assistant at the Polytechnic Institute in Brașov.

It followed a rich academic career, with outstanding achievements in the formation of a geometry school in Braşov. Since 1971, Prof. G. Atanasiu had a major contribution to the prestige of the young Faculty of Mathematics in the University of Braşov. He worked as a lecturer during 1969-1977, as an associated professor during 1977-1990 and as a full professor starting from 1990.

In 1974, he was appointed chair of the Department of Geometry at the University of Braşov, a position which he held, with some interruptions, until 2007. In 2008 he retired, but continued to have a close connection with the Faculty of Mathematics and Computer Science of Brasov University.

Prof. G. Atanasiu contributed to the formation of dozens of generations of mathematicians and engineers and he is remembered by his former students for the clarity and the depth of his lectures.

Also, he had outstanding scientific achievements. In 1973, he was granted a scholarship in Paris, where he had the chance to come into acquaintance with renowned mathematicians such as Charles Ehresmann. In the same year, he obtained a Ph.D. degree at the University Al. I. Cuza University of Iaşi, with the thesis «Pairs of connections compatible with G-structures», under the supervision of Prof. Dr. Gheorghe Georgiev.

In 1980, he was awarded the Gheorghe Țițeica Prize by the Romanian Academy.

He has published numerous scientific articles, 122 of which are registered by Mathematical Reviews and wrote dozens of textbooks.

Prof. Atanasiu's works cover various areas of differential geometry, especially Finsler geometry and its applications. In the 80's, he extended the study (initiated in his Ph.D. thesis) of geometric structures to the tangent bundle equipped with a linear connection. He explored the existence of Finsler connections compatible with these structures (MR0581763, MR0627931, MR0692643, MR0759315, MR0702945, etc.) and brought important contributions to the study of Lagrange geometry (MR0837172, MR0893785, MR0936879, etc.). In 1986, Professor Radu Miron initiated the study the Hamilton geometry, highlighting its links by duality with the previously Lagrange geometry; a close associate of Prof. R. Miron in this field was Professor G. Atanasiu (MR0954559, MR1037238, MR1128718, MR1088465 etc.).

In the early 90's, he tackled, along with G. Munteanu, the geometry of the second order tangent bundle (MR1174510). Later on, he got together with R. Miron remarkable results on this topic, which is nowadays known under the name of geometry of the k-osculating bundle,  $Osc^kM$  (MR1423090, MR1687706) and which, in the presence of a higher order Lagrangian, led to higher order Lagrange geometry (MR1455398, MR1423092). The main issues considered in this area are related to prolongations of Riemannian metrics, Finslerian or Lagrangian structures to  $Osc^kM$  (MR1423091, MR2155194) and to the study of some higher order Lagrangians with applications in theoretical physics (MR1406035, MR1770982, MR2431138, etc.).

In recent years Professor G. Atanasiu studied together with his collaborators the issue Berwald-Moor metrics and their extensions to the bundle  $Osc^2M$ , followed by various applications in theoretical physics; this was the subject of a long term and fruitful collaboration of the whole Brasov team led by him with the Research Institute for Hypercomplex Systems in Geometry and Physics in Fryazino-Russia. Also, over the last few years, he studied, together with M. Neagu, issues related to multi-time Lagrange and Hamilton geometry (MR2641138, MR2539737). Prof. G. Atanasiu collaborated with numerous scientists from Romania and abroad. He published 12 joint papers with R. Miron, whose friend and coworker he was for a long period. Other productive collaborations were those with M. Hashiguchi (MR1202614, MR0837172), F. Klepp (MR1022205, MR1022204, MR1128718), I. Čomić (MR1691917, MR1713780), G. Munteanu (MR1174510, MR1174511, MR1246876), E. Stoica (MR1687706, MR1713780, MR2062528) and with M. Neagu (MR2539737, MR2641138). Many results were also obtained in collaboration with his Ph.D. students: N. Voicu, M. Purcaru, M. Păun, M. Tărnoveanu, A. Oană.

Professor G. Atanasiu was the doctoral advisor of several geometers from the Faculty of Mathematics and Computer Science in Braşov and from other Romanian universities.

A special contribution belongs to Professor G. Atanasiu in organizing in Braşov, in collaboration with Academician Prof. Doc. Radu Miron, the biennial National Seminars in Finsler and Lagrange Spaces, from 1980 until 1994. These Seminars were the environment in which many of the ideas in Finsler geometry in the 80's and 90's appeared and developed; it was a great geometry school, whose results are visible up to now. The team of geometers in Braşov, created by him, enjoys international recognition in Finsler geometry.

He was a member of several scientific associations, such as the Romanian Mathematical Society and a founding member (in 1994) of the Balkan Society of Geometers. As a result of his prodigious work, he was elected vice-president of several General Assemblies of BSG.

For all this, the Faculty of Mathematics and Computer Science from Braşov and Balkan Society of Geometers pays him a pious homage.

Gheorghe Munteanu Transilvania University of Braşov

Constantin Udrişte President of Balkan Society of Geometers С профессором Атанасиу я познакомился десять лет назад, зимой 2005 года. Он написал письмо (что удивительно - на русском языке), в котором выражал горячее согласие с идеей многомерности времени и псевдофинслеровой геометрии соответствующего многообразия. С тех пор, не проходило ни одного более менее серьезного мероприятия, организуемого нашим НИИ Гиперкомплексных систем в геометрии и физике, в котором бы профессор не принимал личного участия. Он был постоянным организатором и членом академического комитета всех международных конференций «Финслеровы обобщения теории относительности», а так же ряда важных семинаров, в том числе, тех которые инициировал сам в Румынии, в родном для себя Трансильванском университете. На всех этих мероприятиях, он постоянно подчеркивал свое убеждение в том, что реальный физический мир должен существенно лучше описываться псевдофинслеровой геометрией многомерного времени с метрикой Бервальда-Моора, тогда как общепринятая сегодня метрика Минковского - лишь достаточно хорошее приближение к этой финслеровой реальности.

Общение с профессором Атанасиу всегда доставляло огромное удовольствие, а споры — неизменно оказывались конструктивными и глубокими. Сейчас трудно представить, как развивалась бы деятельность НИИ Гиперкомплексных систем, не переплелись судьба нашего института с последним десятилетием Георгиу Атанасиу. Трудно выразить всю нашу благодарность этому человеку и мы отчетливо понимаем, насколько теперь нам всем будет его не хватать...

> Директор НИИ Гиперкомплексных систем в геометрии и физике Павлов Д.Г.