

# Opening statement

Liviu Nicolescu

The Faculty of Mathematics and Informatics of the University of Bucharest had Gheorghe Țițeica amongst its brilliant teaching staff for 4 decades. As followers of Gheorghe Țițeica, in the Faculty of Mathematics and Informatics, we consider this commemoration to be a strong link for the Romanian scientific traditions as well as a confirmation of the capacity of our people to contribute to the enrichment of the patrimony of universal science.

On this occasion I feel I have the duty to remind you that Gheorghe Țițeica meant for me, as well as for my younger colleagues, a permanent source of knowledge and a model of devotion for mathematics. His example was a constant urge for us to harmoniously combine the teaching activities with the passion for scientific research. Through his example, our illustrious teacher has strengthened the basis of the Romanian school of geometry. It is the task of future generations to constantly make it richer, better and wider.

At the first symposium, this year, dedicated to Gheorghe Țițeica, we have followed with a lot of interest scenes from the life and the activity of Gheorghe Țițeica as well as his great contribution to the development of pre-university geometry education. We have also seen that we can attribute to Gheorghe Țițeica the great merit of founding the Romanian differential geometry school by original and fundamental achievements that have represented as many openings for future researches. I will now quote just some of the pioneer ideas of Gheorghe Țițeica:

I. Contributions to the development of the geometries with fundamental group and the creation of differential central affine geometry;

II. Definition and studies on the webs, congruencies, curves and surfaces bearing his name;

III. Definition of space with affine connection, 10 years prior to Herman Weyl. Establishing the priority of the Romanian scientist, professor Gh. Vrănceanu concludes: "... not only Țițeica introduced for the first time the surfaces with affine connection but he also raised the subject of the embedding of such surfaces. In Weyl's work such embedding problems do not exist as they do not exist in any of the geometries with projective connection considered by Elie Cartan".

The full value of Țițeica's works is far from being realized, however, as the ideas of the great Romanian scientist go beyond the strict framework of mathematics. Thus, in 1973, K. Teleman indicated the way to use some of Țițeica's principles to get symmetry models within the framework of elementary particles physics.

Due to his works on differential geometry, published in several mathematics journals, Țițeica became, as time grew by, both well known and appreciated in the mathematics world. Thus, at the International Congresses in Toronto (1924), Zurich (1932) and Oslo (1936) he was elected president of the geometry section, this being the greatest honor our great mathematician could plead to his country.

Besides being a great mathematician, Gheorghe Țițeica was also a great pedagogue: he taught, with impeccable clarity, courses that charmed and offered to his audience highly valuable lessons from the pedagogical and educational points of view that helped "humanizing" the science.

I would like to underline the fact that, even if, within the Romanian culture framework, the humanistic traditions, creating universally recognized values, are older, the scientific traditions, though newer, offered in a relatively short period achievements that became instantly parts of the universal culture. Those achievements are cherished, today as they were yesterday, by the contemporary world and represent a testimony of the creative capability of the Romanian people.

The statements that will follow will update us with the current objectives of their authors. We are talking about teaching staff from the University of Bucharest and University Politehnica of Bucharest as well as researchers from the Mathematical Institute of the Romanian Academy. I would like to thank those persons for coming here and I would also want to thank the persons from the UNESCO National Romanian Committee that have contributed to the unfolding of this symposium.

On behalf of the teaching staff from the Faculty of Mathematics and Informatics of the University of Bucharest, please allow me to pay my respect to the memory of our forefather, Gheorghe Țițeica.

Liviu Nicolescu  
University of Bucharest, Faculty of Mathematics and Informatics  
14 Academiei St., RO-010014, Bucharest, Romania  
e-mail address: lnicol@geometry.math.unibuc.ro