ADELINA GEORGESCU

25.04.1942 - 01.05.2010

I had the privilege of meeting Professor Adelina Georgescu almost 20 years ago during a series of courses that she held at the *University of Craiova*, Romania. What followed was more than a collaborative relationship; it was a long friendship, during which I discovered in her a gifted Romanian mathematician with a brilliant mind and a sharp spirit of righteousness.

Born on April 25, 1942 in Turnu Severin, Romania, she lost her mother at the age of two and was subsequently raised by her grandparents in Castranova. She began her schooling in Caracal and also graduated from an all-girls' high school in the same town. Between 1960 and 1965 she continued her studies in mathematics at the *University of Bucharest*. Here she benefited from the instruction of famous professors such as Victor Vâlcovici, Miron Nicolescu, Grigore Moisil, Gheorghe Vranceanu, Solomon Marcus, and Caius Iacob. Under the latter's guidance she completed her degree and earned her university diploma.

In 1965 she began working at the *Institute of Applied Mechanics Traian Vuia*, which later became the *Institute of Fluid Mechanics*. She then pursued a PhD at the *Institute of Mathematics*, studying hydrodynamic stability and corresponding with the best world specialists in the field. In 1970 she earned her doctorate degree in mathematics, under the supervision of academician Caius Iacob.

Between 1970 and 1975 she worked for the *Institute of Mathematics*, where she enjoyed a high-quality library, scientifically-advanced seminars, and elaborate discussions with the elite of Romanian mathematicians. After the closing of the *Institute of Mathematics* in 1975, she returned to the *Institute of Fluid Mechanics and Aerospatial Engineering*, where she remained until 1990. Here she worked on her first book in English, *Hydrodynamic Stability Theory*. The book was published by Kluwer in 1985 and has remained a highly appreciated reference in the field. At the same time she held her first courses at the *Faculty of Mathematics* from Bucharest.

The close relationship she had with her two sons, Andrei (born in 1971) and Sergiu Moroianu (born in 1973), well-known mathematicians today, and the relentless care for their education, enabled her to endure the difficulties of the communist regime and the stifling atmosphere maintained by it, until the Romanian Revolution in December 1989.

After the Revolution, returning to the re-established *Institute of Mathematics of the Romanian Academy*, she was often invited to hold conferences, seminars, and courses at foreign universities and research centers.

A three-month visit to the United States in 1990 gave her the strong conviction that mathematics needs to be more closely applied to real life problems and related to the universe of physics, economics and biology. This is why, after numerous complicated formalities, in 1991 she founded the *Institute of Applied Mathematics* (IMA), which she managed until 1995. Starting with a group of 25 researchers and modest working conditions, she succeeded to raise funds and to develop an institute of high scientific level, with an elegant headquarter and a rich library.

Still in 1990 she took the lead, with professors Cabiria Andreian Cazacu and Petre Osmatescu, to resume the organization of the *Congress of the Romanian Mathematicians* from all over the world, which had not been held since 1956. The idea finally materialized in 2003 with the organization of the *Fifth Congress of the Romanian Mathematicians* at Piteşti.

Promoting a rich scientific life of Romanian mathematicians through wide participation to conferences and constant exchange of research ideas, in 1992, in parallel with the IMA, she established the *Romanian Society of Applied and Industrial Mathematics* (ROMAI). This organization now has more than 150 members and an important branch in Basarabia. The organization has hosted annual *Conferences on Applied and Industrial Mathematics* (CAIM), the first one being held in Oradea in 1993. Professor Georgescu was involved in the organization of these conferences and in the improved rigor of their scientific content. Consequently, she published papers in volumes, starting with limited editions and then publishing them in the *Scientific Bulletins of the University of Pitesti*. Finally, the organization launched its own journal in 2005: *ROMAI Journal*.

In 1997, after her management position at IMA was terminated due to a controversial competition held while she was in Paris for a 6-month research stage, she moved to the University of Pitesti. Here she was elected head of the *Department of Applied Mathematics*. Following her dream to develop the field of applied mathematics, she organized at Pitesti the *Research Seminar Victor Vâlcovici*; she initiated and supported the hiring of talented young mathematicians and she edited a series of scientific monographs, which particularly reflected the activity of the ROMAI members. The first issue of the *Applied and Industrial Mathematics Series* appeared in 1999, and 29 issues

have been published up to this day. Disciplined, honest and dedicated, she contributed to the improved rigor and quality of education offered at the *University of Pitesti*. In permanent struggle with the established academic hierarchy, she fought tirelessly and often unsustained for a clean and high quality university.

During her last years, she extended her collaboration with Italian mathematicians such as Lidia Palese and Liliana Restuccia. They published tens of articles and attended many conferences and seminars at the universities of Bari, Messina and Catania.

Patriotically and tirelessly, she fought tooth and nail for the rapprochement of Basarabia. Thus, she collected and sent to Moldavia lots of books written in Romanian in a period when these books could hardly be found in that region. Additionally, with the support of a great number of Moldavian mathematicians, she expanded the organization of the CAIM conferences to Chisinau. Well-known mathematicians such as academician Mitrofan Ciobanu or professors Mefodie Rata, Mihail Popa, Dumitru Botnaru related their names to ROMAI and became regulars of CAIM conferences. Through all her actions, Adelina Georgescu showed that, in spite of all the existing obstacles, the idea of solidarity and spiritual unity with Moldavians is always present in the hearts of Romanians on the left side of the Prut River.

The main research contributions of Professor Adelina Georgescu were in hydrodynamics and their applications to complex fluid flows, hydrodynamic stability, turbulence, perturbative theories for differential equations, nonlinear dynamics, bifurcation theory, variational problems of mathematical physics, and synergetics. Her notable contributions comprise more than 200 scientific papers and 19 books, published both in Romania and abroad. She also hosted hundreds of conferences and other scientific meetings. A book of memoirs, published post-mortem, completes in a retrospective key her rich list of publications. With enthusiasm and persistence, she built a school of high academic quality, mainly focussed on applications of mathematical theories. The extraordinary personality of Professor Adelina Georgescu was felt by all her collaborators, friends and acquaintances. Her joy of sharing knowledge and science led her further to supervise and oversee 19 PhD theses, finalized between 1997 and 2009.

Of a rare honesty and a remarkable intelligence and generosity, she worked unwaveringly toward fulfilling her dream of advancing the field of applied

mathematics. In recognition of her scientific accomplishments, she was elected Doctor Honoris Causa of the *University of Tiraspol*, corresponding member of *Academia Peloritana dei Pericolanti* in Messina, member of the *Academy of Nonlinear Sciences* in Moscow, and member of the *Academy of Romanian Scientists.*

Professor Adelina Georgescu passed away on the First of May, 2010. She is resting near her father in the garden of a small church in her childhood village of Castranova. In her memory, at the annual conference organized at Iasi in October 2010, the ROMAI society awarded the first *Prize Adelina Georgescu for Applied Mathematics*, established for rewarding the most gifted young mathematicians from Romania and Republic of Moldavia.

I once heard Professor Adelina Georgescu citing her father's words at her graduation ceremony: "I gave you wings, now fly away!" And she did fly, throughout her subsequent life, higher and higher. And she gave wings to many disciples who found in her an energetic advisor always ready to share her knowledge and ideas. She was more than the founder of a research school: an unforgettable model of moral integrity, dignity and patriotism.

Farewell, dear Adelina Georgescu! You will always live in our hearts!

Carmen Rocşoreanu

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