ACADEMICIAN PROFESSOR DIMITRIE D. STANCU AT HIS 85-TH ANNIVERSARY

GHEORGHE COMAN AND MILITON FRENŢIU

Professor **Dimitrie D. Stancu** was born on February 11, 1927, in a very poor farmer family from the village Călacea, situated not far from Timişoara, the capital of Banat, in the south-west part of Romania. Soon he remained orphan, and he was forced to work as a shepherd engaged by a rich family. Consequently he was able to go to primary school only when he was nine years old. His oldest brother, who worked in a painter workshop in Arad city, brought him in Arad at the "Regina Maria" orphanage in 1937, where he was included also in the elementary school. Then he entered at the Gymnasium from the district "New Arad". In the period 1943–1947 he studied at the prestigious Lyceum "Moise Nicoară" from Arad, the same place where other two academicians, Tiberiu Popoviciu and Caius Iacob, studied some years earlier.

In 1947 he began a four-year study at the "Victor Babeş" University from Cluj, the capital of the Romanian province "Transylvania". He was a very good student, remarked by his teachers, consequently in his third year was named teaching assistant. In 1951, after his graduation, he was appointed assistant at the Department of Mathematical Analysis, University of Cluj. During his studies he was under the influence of professor Tiberiu Popoviciu, a great master of Numerical Analysis and Approximation Theory, who has stimulated him to do research work in mathematics, and was his PhD supervisor. He obtained the Ph.D. in mathematics in 1956. In a normal succession he advanced up to the rank of full professor in 1969.

In the academic year 1961–1962 Professor D. D. Stancu had an excellent opportunity to be a fellowship at the Numerical Analysis Department, University of Wisconsin, Madison, conducted by late professor Preston C. Hammer. Returning from America, he was named deputy dean at the Faculty of Mathematics of "Babeş-Bolyai" University from Cluj. And in this period he became closed to the future Computer Science section of our University. He taught for the first time in Romania, the programming language Fortran. Also, he created a new chair, Numerical and Statistical Calculus, and was its chief.

Here he gathered a group of teachers interested in this domain who were implied later in teaching the students of computer science section. The group of theachers interested in Computer Science has aroused in this department.

Professor Stancu has taught several courses at his University: MathematicalAnalysis, Numerical Analysis, Approximation Theory, Informatics, Probability Theory and Mathematical Statistics, as well as Constructive Theory of Functions.

Professor D.D. Stancu has important mathematical contributions in various areas of numerical analysis, approximation theory, numerical differentiation, orthogonal polynomials, numerical quadratures and cubature, Taylor-type expansions, approximation by linear positive operators, representations of remainders in linear approximation formulas, probabilistic methods for construction and investigation of linear operators of approximation, use of interpolation and calculus of finite differences in probability theory and mathematical statistics. After 1959, he became interested in approximation theory by means of sequences of linear positive operators. His results are well appreciated in the scientific community. There are more than 50 papers published in different mathematical journals, containing in their titles the name of D. D. Stancu.

Professor Stancu has participated at many international scientific meetings of mathematics, organized in Romania (Cluj, Bucharest, Iaşi, Timişoara), Germany (Stuttgart, Hannover, Hamburg, Goettingen, Dortmund, Munster, Siegen, Berlin,Wurzburg and Oberwolfach), Italy (Roma, Napoli and Potenza), England (Lancaster and Durham), Hungary (Budapest), France (Paris), Bulgaria (Sofia and Varna), Poland (Warsaw), Czech Republic (Brno) and USA (Nashville, S.C.-Columbus, OH, Columbia, S.C.). Professor D. D. Stancu has participated at different events in USA, organized by the American Mathematical Society. He has presented contributed papers at several regional meetings of this Society, from Milwaukee, Chicago and New York. Also, on the base of an official invitation from the Society for Industrial and Applied Mathematics (SIAM), at a "SIAM Symposium on Approximation" organized in Gatlinburg, Tennessee (October 21–26, 1963). In May 2000 he was invited to participate at the International Symposium "Trends in Approximation Theory" dedicated the 60th birthday of Professor L. L. Schumaker, held in Nashville, Texas, where he presented a paper in collaboration with professor Wanzer Drane, from Columbia, S.C.

Since 1961 he is a member of the American Mathematical Society and a reviewer of the international journal "Mathematical Reviews". Also, he is a member of the German society: "Gesellschaft für Angewandte Mathematick und Mechanik" as well as a reviewer of the international journal "Zentralblatt für Mathematik". For many years he was a member of the Editorial Board

of the Italian mathematical journal "Calcolo", published now by "Springer-Verlag", in Berlin.

In Romania he is the Editor in Chief of the journal published by the Romanian Academy: "Revue d'Analyse Numerique et de Theorie de l'Approximation". In 1996 Professor D. D. Stancu has organized at the University "Babeş-Bolyai", Cluj-Napoca, an "International Conference on Approximation and Optimization", in conjunction with the Second European Congress of Mathematics, held in Budapest, where participated around 150 mathematicians from 20 countries around the world. The Proceedings of this ICAOR conference were published in two volumes, having the title: "Approximation and Optimization", by Transilvania Press, Cluj-Napoca, Romania, in 1997.

In May 9–11, 2002, there was organized by "Babeş-Bolyai" University, Cluj-Napoca, the "International Symposium on Numerical Analysis and Approximation Theory", dedicated to the 75th anniversary of Professor D. D. Stancu. In the period 5–8 July, 2006 there was organized in Cluj-Napoca an "International Conference on Numerical Analysis and Approximation Theory". Professor D. D. Stancu was an honorary chair of this Conference.

He had a large numbers of doctoral students from Romania, Germany and Vietnam. Here are the persons that own their PhD to professor D.D.Stancu: **Grigor Moldovan** (1971), **Stefan Maruster** (1974), Ioan Gansca (1975), Trung Du Hoang (1976), Ioan Mihoc (1976), Ştefan Cobzaş (1978), Maria Micula (1978), Octavian Dogaru (1979), Dumitru Acu (1980), Aurel Gaidici (1980), Horst Kramer (1980), Maria Mihoc (1981), Ioan Gavrea (1982), Petru Blaga (1983), Adrian Diaconu (1983), Crăciun Iancu (1983), Ioan Şerb (1983), Elvira Kramer (1984), Constantin Manole (1984), Traian Mureşan (1984), **Zoltan Kasa** (1985), **Leon Ţâmbulea** (1985), Cristina Cismaşiu (1986), Tiberiu Vladislav (1986), Maria Dumitrescu (1989), **Teodor Toadere** (1989), **Dumitru Dumitrescu** (1990), Ioana Chiorean (1994), Octavian Agratini (1995), Alexandra Ciupa (1995), Reiner Dünnbeil (1996), Alexandru Bărbosu (1997), Vasile Miheşan (1997), Emil Popa (1998), Gabriela Vlaic (1998), Emil Cătinaş (1999), Daria Dumitraş (1999), Silvia Toader (1999), Andrei Vernescu (2000), Maria Crăciun (2005). Those marked are computer science teachers and this aspect constitutes the third connection of Professor D.D.Stancu to Computer Science.

In 1995, for his scientific achievements, the "Lucian Blaga" University from Sibiu has awarded him the scientific title of Doctor Honoris Causa. Few years ago the "North University" of Baia Mare, from which he had several doctoral students, has distinguished him with the same title.

In 1999 professor D. D. Stancu was elected as **Honorary Member of the Romanian Academy**.

Editing this article we can state that the intensive work and his important results obtained in Numerical Analysis, Approximation Theory and Probability Theory has brought him recognition and appreciation in our country and abroad. The important academic activity of professor D. D. Stancu culminated in three fundamentals books on Numerical Analysis [108, 109, 113] "Analiză Numerică şi Teoria Aproximării" (1438 pages), written under his supervision.

Now, on celebrating his 85-th birthday, we wish to D.D. Stancu and his family "Many Happy Returns of the Day", and a long life in health and happiness.

Annex A: Selected Publications

[1] Stancu, D.D., *Contribution to the partial numerical differentiation of functions of two and several variables* (Romanian), Bul. Sti. al Acad. R.P. Române, Secţ. Mat. Fiz., 8, 1956, 733-763.

[2] Stancu, D.D., *A study of the polynomial interpolation of functions of several variables, with application to the numerical differentiation and integration; methods for evaluating the remainders*, PhD Thesis (Romanian), University of Cluj, 1956, 192 pag.

[3] Stancu, D.D., *Consideration on the polynomial interpolation formulas for functions of several variables*(Romanian), Bul. Univ. Babeş-Bolyai Cluj, 1, 1957, 43-82.

[4] Stancu, D.D., *Contributions to the numerical integration of functions of several variables* (Romanian), Acad. R. P. Române, Fil. Cluj, Stud. Cerc. Mat., 8, 1957, 75-101.

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[13] Stancu, D.D., *On the Gaussian quadrature formulas*, Studia Univ. Babeş-Bolyai, Cluj, 1, 1958, 71-84, (Romanian, Russian and French summaries).

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[16] Stancu, D.D., *On the approximation by Bernstein type polynomials of functions of two variables* (Romanian), Com. Acad. R. P. Române, 9, 1959, 773-777.

[17] Stancu, D.D., *On some general quadrature formulas of type Gauss-Christoffel* (French), Mathematica (Cluj), 1 (24), 1959, no. 1, 167-182.

[18] Stancu, D.D., *On a proof of the Weierstrass theorem* (Romanian), Bul. Inst. Politehn. Iaşi, 5 (9), 1959, no. 1-2, 47-50.

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[38] Stancu, D.D., *A general interpolation formula*, Acad. R. P. Române, Fil. Cluj, Institutul de Calcul, Proceedings of the Colloquium on Convex Functions, with Applications to Numerical Calculus, Cluj, 1965, 92-93.

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