# 75th Anniversary
# of Academician Blagovest Sendov

Blagovest Sendov was born on February 8, 1932 in Asenovgrad. Already as an undergraduate student in Mathematics at the University of Sofia he showed his outstanding talent. In 1955 he found an integral presentation of the class of regular-monotone functions with periodic change of the sign. This problem comes back to S. N. Bernstein. No doubt that this extraordinary result is much above the standard requirements for a Ph.D. thesis. But due to the conservatism of the academic mathematical community in Bulgaria in that time, Blagovest Sendov defended his thesis only in 1964.

He spent 1960-1961 in a specialisation in Numerical Analysis at the Moscow State University and 1968 in specialisation in Computer Science at Imperial College, London. From the first fellowship he brought to Bulgaria the topic for approximation of functions in an interval $[a, b]$ by polynomials with respect to the Hausdorff measure. He discovered the phenomenon of $\mathcal{O}(\log n/n)$: Every bounded function on the interval can be approximated by polynomials of degree $n$ with a rate $\log n/n$. Later, in 1973, as a result of his collaboration with Vasil Popov, Blagovest Sendov found an analogue of the classical Jackson theorem for Hausdorff distance.

In this period Blagovest Sendov founded the first Bulgarian mathematical school — in Approximation Theory. Many of the members of this school became leading experts in the field: V. Popov, B. Bojanov, P. Petrushev, K. Ivanov, O. Trifonov, H. Djidjev, and many others.

Another peak of the research of Blagovest Sendov in Approximation Theory is related with the Whitney constant $W_n$. The initial bound for his constant obtained by Whitney was $n^n$. There was a certain believe among the experts in Approximation Theory that its order is likely $c^n$. Sendov made the striking conjecture that the Whitney constant does not depend on $n$ and, moreover, is equal to 1. He and his collaborators did a lot of progress on this conjecture but the final goal $W_n = 1$ is still unsolved.

The most famous conjecture of Sendov concerns geometry of polynomials: If $P(z)$ is an algebraic polynomial whose zeros are in the unit disc, is it true that every disc with radius 1 and centered at a zero of $P(z)$ contains a zero of the derivative $P'(z)$?

Besides in Approximation Theory, Blagovest Sendov has milestone results in Mathematical Modeling, Computer Science, Numerical Analysis, etc. Tireless

popularizer of Mathematics and Computer Science, he was a member of the team that built the first Bulgarian computer.

Graduating the University of Sofia in 1956, Blagovest Sendov was not allowed to continue his study as a Ph.D. student by political reasons, although he passed the examinations excellently. He taught mathematics it the school of a small village. But very soon he started his brilliant academic career at the University of Sofia as an Assistant Professor in Algebra (1958), an Associate Professor (1962) and Professor (1968) in Numerical Analysis. In 1974 he became a Corresponding Member and in 1981 a Member of the Bulgarian Academy of Sciences.

Blagovest Sendov has always combined his research and teaching activity with administrative duties. He was consecutively Dean of the Faculty of Mathematics and Rector of the University of Sofia, Vice-President, Secretary General and President of the Bulgarian Academy of Sciences, Director of the Center for Informatics and Computer Technology of the Bulgarian Academy of Sciences.

The achievements in Mathematics of Blagovest Sendov have been recognized world-wide. He is a Honorary Doctor of the Moscow State University, Foreign member of the Ukrainian National Academy of Sciences and Serbian Academy of Sciences, Honory member of the International Higher Education Academy of Sciences. He represented Bulgaria in many international organizations: Vice-President and President of the International Association of Universities (IAU) and of the International Federation of Information Processing (IFIP), Extraordinary Vice-President of the International Council of Scientific Unions, Vice-President of the International Informatics Programme of UNESCO, and many others. Now he is Honorary President of IAU and IFIP.

Blagovest Sendov has had always active political position. He was President and Vice-President of the Bulgarian Parlament. Now he is the Embassador of the Republic of Bulgaria in Japan. And he continues to do research in Mathematics.

We warmly congradulate Professor Blagovest Sendov on his 75th anniversary and wish him a good health, happiness in the private life and to continue his extraordinary rich and productive mathematical life.

On behalf of the Editorial Board of Serdica Mathematical Journal

Vesselin Drensky and Stanimir Troyanski
Editors-in-Chief of Serdica