

REPORT

for the achievements of Assoc. Prof. D Sc Nadia Pejcheva Zlateva, sole participant in a competition for Full Professor, in the professional field 4.5. Mathematics (Operation Research) in the St K. Ohridski University of Sofia, announced in the State Gazette issue 21/03.07.2020 by Stanimir Troyanski, DSc, Associate Member of the Institute of Mathematics and Informatics, Member of the Bulgarian Academy of Sciences (e-mail stroya@um.es, cell phone ++ 359 888722759), appointed by Order No. PД 38-265/10.07.2020 of the Academic Board of the competition.

I have known Nadia Zlateva since she was a student. She was one of the best. Under the TEMPUS program, I sent her to Prof. R. Devil (Université Bordeaux I, Bordeaux, France) a prominent specialist in Functional and Nonlinear Analysis (February - July 1994). Under his influence she got acquainted with the topics of Optimization, Variation Methods, Geometry of Banach spaces and others. Later, there were two more post-doc specializations also in France: Université Montpellier II, Montpellier (February 2002 - July 2003). Université de Bretagne Occidentale, Brest (October 2004-March 2005).

In the period 1987-1996 Nadia Zlateva studied at the Faculty of Mathematics and Informatics at Sofia University. She specialized

"Operations Research". Dr. P. Georgiev was supervisor of her master (1992) and PhD(1997) thesis. She got DSc degree in 2018.

From February 1997 to September 2000 she worked at the Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences. Initially as a mathematician, she has been a researcher since April 1998. Since October 2000 until now she is working at the Department of Probability, Operational Research and Statistics at the Faculty of Mathematics and Informatics at Sofia University. Initially as an Assistant Professor, and since April 2005 she is an Associate Professor. She is the Head of the Department from March 2008 to March 2012 and the Interim Head from October 2017, for one year. From June 2011 to January 2017 is Deputy Dean for Research and Ph D programs at the Faculty. She lectures on Mathematical Optimization 1 and 2, Linear Optimization, Nonlinear Optimization, Operations Research.

N. Zlateva is the author of 27 publications, which are published in prestigious specialized journals, such as SIAM Journal on Optimizations, Journal of Mathematical Analysis and Applications, Journal of Convex Analysis, Nonlinear Analysis - Theory Methods & Applications, Set-Valued Analyzes Journal of Optimization Theory and Applications Mathematics of Operation Research, as well as in general mathematical journals such as, Transactions of the American Mathematical Society, Proceedings of the American Mathematical

Society, Comptes Rendus Mathematique, Paris and others. 274 citations were noted in articles and monographs and 16 in theses and habilitations.

N. Zlateva is a reviewer of more than 10 well-known periodicals in mathematics such as ESAIM Control Optimization and Calculus of Variations, Journal of Global Optimization, Journal of Convex Analysis, Journal of Mathematical Analysis and Applications, Journal of Optimization Theory and Applications, Mathematica Scandinavica, Optimization , Set-valued and Variational Analysis, SIAM, Vietnam Journal of Mathematics and others.

The problems of the studied questions of the candidate are based on the researches of the leading specialists in Optimization. A look at the publications shows that they represent an in-depth study of the main stream of Optimization, and the influence of the French school is palpable. To solve the set tasks, N. Zlateva combines the technique of Set-valued Analysis with methods of Classical and Functional Analysis, and in particular of the Geometry of Banach spaces.

There are 8 articles for the competition, published in journals with Impact Factor. Their distribution by quartiles, according to the Web of Science is: Q1-1, Q2-5, Q3-1, Q4-1. In these articles N. Zlateva continues her research. Generalizes or provides new, elegant proofs of the results of leading experts in the field of Optimization (listed in alphabetical order of surnames): J.-P. Aubin, F. Bernard, R. Correa, I.Ekeland, A.Ioffe, R.Poliquin, R.T. Rockafellar, L.Thibault. The art

cles are co-authored. From the unity of the subject we can assume that N. Zlateva is the initiator of the writing of most of them.

As I have already noted, N. Zlateva's problems treat a number of important problems from the contemporary research on Optimization. Their solution shows that its author is a highly qualified researcher, a prominent specialist in the field of Optimization. In my opinion, the results of the presented publications for the competition are sufficient, both in quality and quantity, to obtain the academic title of Professor.

I strongly recommend the Honorable Jury to elect Assoc. Prof. Nadia Pejcheva Zlateva as FULL PROFESSOR in the 4.5 Mathematics (Optimization).

Gara Bov, September, 2nd 2020.