

# Opinion

**on the competition for the promotion to the academic position  
“Associate Professor”  
in Professional Direction 4.6 “Informatics and Computer Sciences”,  
Specialty “Informatics” (Modelling of large-scale complex systems),  
announced in the State Gazette, Volume 8/29.01.2021,  
for the needs of the Institute of Mathematics and Informatics-BAS  
with only candidate Senior Assistant Venelin Lyubomirov Todorov, PhD**

1. Senior Assist. Venelin Todorov, PhD, was born on December 11, 1986 in Ruse. He graduated with excellence a Master degree in Applied Mathematics at the Faculty of Mathematics and Informatics at Sofia University "St. Kliment Ohridski" in 2011. In 2017, he defended the educational and scientific degree “Doctor”. Since 2014 he has been working at the Institute of Information and Communication Technologies – Bulgarian Academy of Sciences, from 2017 to 2019 – as an assistant at the Institute of Mathematics and Informatics – BAS (IMI-BAS), and since 2019 he has been a senior assistant at the IMI-BAS.

2. The following table presents the total number of scores of the candidate and the required minimum number of scores in the groups of scientometric indicators, according to Art. 2 (1) of the Regulations for the conditions and the order for acquiring scientific degrees and for holding academic positions in the IMI-BAS:

Group of indicators	Minimum number of scores	Number of scores of the candidate
A	50	50
Б	-	-
B	100	112
Г	220	240
Д	70	84
E	20	30

For participation in the competition, Senior Assistant Dr. Todorov presented:

A) Instead of a habilitation thesis - 6 publications, including:  
- 5 papers in series with SJR, of which 3 in quartile Q4;

- 1 conference communication in front of an international IEEE-conference

B) 12 other publications, all of them with SJR, including:

- 6 papers in journals in quartile Q2;
- 2 papers in journals in quartile Q4;
- 4 papers in journals without quartile.

Therefore, the requirement of Art. 3 (1), Item 3 of the *Regulations for the conditions and terms for acquiring scientific degrees and for holding academic positions at the Institute of Mathematics and Informatics at BAS*.

I acknowledge the contributions of Senior Assistant Dr. Todorov as indicated in his documents, in "*Author's reference for original scientific contributions in the publications for participation in a competition for promotion to associate professor of senior assistant Dr. Venelin Todorov*". In my opinion, they correctly reflect the content of the publications with which he participates in the competition and therefore I will not comment on them in detail. I will only note that they are grouped by the candidate in the following six groups:

1. Development of new advanced stochastic approaches for sensitivity analysis of a large-scale complex system, describing long-range transport of air pollutants – [B1, B2, B3, B4, B7, B8,  $\Gamma$ 1,  $\Gamma$ 2,  $\Gamma$ 3,  $\Gamma$ 4,  $\Gamma$ 5];
2. Development of a new stochastic method for large linear systems with application to ecology – [B5, B6];
3. Development of new stochastic approaches to evaluating European options with high dimensions – [ $\Gamma$ 6];
4. Development of new stochastic approaches for estimating multidimensional integrals with high dimensions in statistics – [ $\Gamma$ 7];
5. Construction of new high-order numerical methods for large-scale air pollution modelling in ecology – [ $\Gamma$ 8,  $\Gamma$ 9,  $\Gamma$ 10];
6. Other contributions – [ $\Gamma$ 11,  $\Gamma$ 12].

In my opinion, it would have been more appropriate if the contributions under the third, fourth and sixth group were united under the title of the sixth group.

There is a noted discrepancy between "*Author's reference for original scientific contributions...*", where 8 publications are indicated, marked with B1, ..., B8 and the "*Reference for accomplishment of the minimal requirements by a candidate in the competition for promotion to the academic position "Associate Professor" at IMI-BAS*", where only 6 of the articles are listed.

All articles have been published after the candidate's successful defense of the educational and scientific degree "Doctor of Philosophy". I do not have the list of publications related to the PhD dissertation thesis of Senior Assistant Dr. Todorov, but it is obvious that there are no overlaps.

3. For participation in the competition, the candidate has provided information about 14 citations (of 10 of his articles) out of a total number of 36 citations that he has listed in the "Total

list of citations", but I will immediately mention that in addition to these, in the past months I have cited twice one of his articles. The number of citations indicated by Senior Assistant Dr. Todorov exceeds the requirements of the *Regulations on the conditions and terms for acquiring scientific degrees and for holding academic positions at the Institute of Mathematics and Informatics - BAS*.

4. The presented documents demonstrate that the candidate has participated in 3 research projects related to the topic of the competition.

I do not know personally Senior Assistant Dr. Todorov.

All of the above justifies my positive assessment of the materials presented for participation in the competition, and my recommendation to the respected members of the Scientific Jury, and to the respected members of the Scientific Council of IMI-BAS to endorse the promotion of **Senior Assistant Dr. Venelin Lyubomirov Todorov** to the **academic position "Associate Professor"** in Professional Direction **4.6 "Informatics and Computer Science"**, code **01.01.12 "Informatics"**.

May 6, 2021

Signature: .....

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