

## OPINION

by Asc. Prof. Stanislav Nikolaev Harizanov IMI-BAS,  
on documents, submitted for participation in a competition for  
the academic position of Associate Professor in professional area  
4.5 “Mathematics”, scientific specialty “Mathematical Model-  
ing and Math Applications (Mathematical Biology)” with can-  
didate Milen Kolev Borisov

By Order No.184/07.04.2023 of the Director of Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences, Prof. Peter Boyvalenkov, pursuant to Article 4, Paragraph 2 of the ”Law on the Development of Academic Staff in the Republic of Bulgaria” and Decision of the Scientific Council of IMI-BAS (Protocol No.3/17.03.2023) I have been appointed a member of the Scientific Jury under procedure for academic position of Associate Professor in the scientific field 4. Natural Sciences, Mathematics and Informatics, professional area 4.5 Mathematics, scientific specialty “Mathematical Modeling and Math Applications (Mathematical Biology)”, announced for the needs of the “Department of Mathematical Modelling and Numerical Analysis” in State Gazette issue 14 from 10.02.2023. As a member of the Scientific Jury on 18.04.2023 I received all the documents, attached to the application, addressed to the Director of IMI-BAS by the only candidate for the competition Assist. Prof. Milen Kolev Borisov. Those documents are in accordance to the Law on the Development of Academic Staff in the Republic of Bulgaria, the rules for its implementation and the specific requirements introduced in the regulations of IMI-BAS.

### 1. Short biographical information

Milen Borisov was born in Gabrovo on 18.12.1981. He majored in Informatics and graduated from the Faculty of Mathematics and Informatics at Sofia University “St. Kliment Ohridski” in 2004. Later, he received an M.Sc. in “Informatics (Bio- and Medical Informatics)” in 2008 from FMI-SU, and a PhD in “Mathematical Modelling and Applications” in 2013 from IMI-BAS. Since 2010, Milen Borisov has been working at IMI-BAS, firstly as a programmer (2010 - 2012), then as a research assistant (2012 - 2020), and currently as an

Assistant Professor. He has also worked in the private sector as a programmer.

## 2. General description of the presented materials

The candidate has presented a full list of 19 scientific publications, 11 of which are included for consideration within the competition. The latter are from the period 2017 - 2022; 9 are referenced in the databases Scopus and/or Web of Science, from which 7 articles are in scientific journals with Impact Factor (1 in Q1, 5 in Q2, and 1 in Q3). After the date of his promotion to an Assist. Professor (13.03.2020) there are 5 papers (published or accepted for publication) with JCR-IF or SJR, which are more than half the papers of this type, included for consideration within the competition. 2 of the publications are with a single co-author, 8 are with two co-authors, and one – with four co-authors.

## 3. Impact of the candidate's scientific publications in the literature

Eight publications of the candidate have been independently cited 32 times in total by scientific papers, referenced and indexed in world renowned scientific information databases (Scopus/Web of Science). Six of the cited publications are among those, included in the competition, while 31 of the citations are within the period 2019 - 2022. Together with the fact that 26 of the citations are of foreign research groups without Bulgarian collaborators, it is an indication for the high level of relevance of the conducted research, the quality of the derived scientific results, and the international recognition of the candidate.

Milen's h-index is 4, according to both Scopus/Web of Science databases and 6, according to Google Scholar.

## 4. General characteristics of the applicant's activities

### (a) Scientific and applied scientific activity

Milen has authored and co-authored 19 research publications and directed 2 national projects within the BAS programme for supporting Young Scientists. He has also been a member of another 2 national projects (1 funded by the Bulgarian National Science Fund and 1 funded by the National Scientific Program ICTinSES).

(b) Contributions

The applicant’s contributions in the presented materials are undoubted and have both scientific and applied scientific nature. They are divided in three groups.

- Mathematical modeling of continuous bioreactors.
- Reaction networks and applications in biomathematics.
- Mathematical epidemiology.

5. Evaluation of the personal contribution of the applicant

I have no doubt about the personal contribution of the applicant in the presented publications.

6. Critical remarks

Some pieces of the JCR-IF information for the journals are outdated and relate to the year before the publishing of the corresponding papers. However, in all the four cases, the actual JCR-IF value exceeds the one in the document.

Further, there are only two publications with an international collaboration and the candidate hasn’t been a member of international scientific projects.

*I have no critical remarks, which could question the contributions of the applicant and which would affect my overall positive assessment.*

7. Conclusion

The presented materials convincingly prove the high professionalism of Assist. Prof. Dr. Milen Borisov, the importance of his scientific achievements and their scientific impact. My personal impressions confirm the above conclusions. Further, the collected points for components E and F significantly surpass the required IMI-BAS minima – 192/70 and 63,6/20, respectively.

Given the above, I wish to **propose to the Scientific Jury to make a recommendation to the Scientific Council Assist. Prof. Dr. Milen Kolev Borisov to be elected for the academic position “Associate Professor”** in professional area 4.5 “Mathematics”, scientific specialty ‘Mathematical Modeling and Math Applications (Mathematical Biology)’.

May 26, 2023  
Sofia, Bulgaria

Member of the scientific jury: .....  
Assoc. Prof. Dr Stanislav Harizanov