

REVIEW

in a competition for an academic position

"Associate Professor"

in a professional direction 4.1. Physical sciences (Astronomy and astrophysics),

for the needs of Sofia University "St. Kliment Ohridski "(SU),

Faculty of Physics, announced in SG no. 54 of 29.06.2021 yr.

The review was prepared by: Prof. Dr. Dragomir Valchev Marchev, lecturer at the University of Shumen "Bishop Konstantin Preslavski", in professional field 4.1. Physical sciences, scientific field of Astronomy, in his capacity as a member of the scientific jury in a competition according to Order № RD 38-374 / 21.07.2021 of the Rector of Sofia University.

For participation in the announced competition has submitted documents the only candidate Ch. Assistant Professor Dr. Vladimir Veselinov Bozhilov, Lecturer in the Department of Astronomy at the Faculty of Physics, Sofia University.

I. General description of the presented materials

1. Details of the application

The documents submitted by the competition by the candidate comply with the requirements to the Law for academics in the Republic of Bulgaria (LARB) and the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions at Sofia University "St. Kliment Ohridski "(RTCASDHAPSU).

For participation in the competition, the candidate Chief Assistant Dr. Vladimir Veselinov Bozhilov has submitted a list of a total of 21 titles, incl. 19. publications in Bulgarian and foreign scientific publications and scientific forums, 2 textbooks and teaching aids. There are also 27 other documents (in the form of official notes and certificates from the employer, project manager, funding organization or contracting authority, references and feedback, awards and other relevant evidence) supporting the applicant's achievements.

All necessary documents required by LARB and the regulations for its implementation are presented: professional biography, list of publications and copies of the publications themselves, reference to the citations, reference to the minimum required points by groups of indicators for the academic position "associate professor" and others.

2. Details of the candidate

Vladimir Bozhilov was born on January 17, 1986. In 2008 he graduated with a bachelor's degree in physics from the Faculty of Physics at Sofia University. In 2009 he became a master of astrophysics and astronomy also at the Faculty of Physics at Sofia University.

From 2010 to 2014 he was a doctoral student in the Department of Astronomy at the Faculty of Physics of Sofia University, graduating with a doctorate in "Polarimetric and photometric studies of blazars" and received the scientific and educational degree "Doctor".

From July 2015 until now he has been working as a senior assistant in the Department of Astronomy at the Faculty of Physics at Sofia University. Prior to that, twice a year he worked as a substitute assistant in the same department.

He is a member of a number of national and international organizations, such as: the Union of Physicists in Bulgaria (UPB), the European Astronomical Society (EAS), the International Astronomical Union (IAU) and others.

3. General characteristics of the scientific works and achievements of the candidate

Dr. Bozhilov's research can generally be synthesized in one sentence as: spectroscopy, polarimetry and photometry of active galactic nuclei (blazars and quasars). The implementation of these studies is related to the ability and ability to receive, process and interpret observations of various telescopes and equipment, which requires extreme erudition. This unequivocally shows that the colleague is an established and recognized in astronomical circles scientist in his field.

In recent years, most publications in the field of astronomy are collective work. The publications in which the results of Dr. Bozhilov's research are presented are no exception to this trend. This, in turn, shows the colleague's ability to work in a team.

The main part of Dr. Bozhilov's scientific work is directly related to his participation in the large-scale project for observation of blazars WEBT (The Whole Earth Blazar Telescope). Most of the publications presented for the procedure are co-authored with this team. From the attached letter of the project manager Dr. Massimo Villa it is clear that the applicant has a significant contribution to these publications. Similar letters have been presented by other leading authors of the team publications. Therefore, I accept the submitted 19 publications for participation in the review competition and for the reason that they are not used to obtain the scientific and educational degree "Doctor".

Most of the scientific publications have been published in publications with a high impact factor (MNRAS, A&A, JCAP, Journal of High Energy Astrophysics). The fact that one of the publications is in the journal Nature is especially impressive. This unequivocally speaks of the significance of the presented results.

From the presented report on the minimum required points by groups of indicators for the academic position "Associate Professor" it is clear that the candidate is gaining the required number of points by law on the various indicators. As follows:

-according to indicator A (1) -50t. achieved 50t. (dissertation for the award of educational and scientific degree "Doctor");

-according to indicator B (4) -100t. achieved 100t. (four publications in Q1 on SCOPUS);

-according to indicator D (7) -200t. achieved 302t. (10 publications in Q1, 2 publications in Q2 and one in Q4 under SCOPUS);

-according to indicator D (11) -50t. achieved 412t. (206 independent citations).

The submitted additional materials under number 15 included in the documents of the procedure show that the applicant meets the additional requirements of Sofia University "St. Kliment Ohridski" for holding the academic position of "Associate Professor" in the scientific field and professional direction of the competition.

I did not find plagiarism in the scientific papers submitted at the competition.

4. Characteristics and evaluation of the candidate's teaching activity

Along with the reference for his scientific work, the candidate has presented a solid reference for his teaching and promotion activities. From this reference it is clear that he actively participates both in the administration and in the training in the bachelor's and master's programs administered by the Department of Astronomy at the Faculty of Physics at Sofia University. Dr. Bozhilov's teaching and popularization skills are known to the large audience of BNT1, in which he is a frequent and welcome guest in the national media.

5. Content analysis of the scientific and scientific-applied achievements of the candidate contained in the materials for participation in the competition

The scientific contributions of the candidate are associated with participation in the implementation of observations in the optical range, in the processing of relevant data, participation in the interpretation and preparation of publications, as well as in their final layout. The author's contribution of Dr. Bozhilov in the presented research is indisputable, taking into account the letters from his co-authors, as well as the fact that he is the first author of several of the publications.

The approbation of the candidate's scientific results is related to his participation in more than 20 international and national astronomical conferences, congresses and seminars.

The scientific results obtained by Dr. Bzhilov are highly valued by the Astronomical College, because most of the observed and documented citations, according to ADS, are made in renowned international journals in the field of astronomy. In the SCOPUS database, the name of the candidate is associated with 19 publications with over 200 independent citations, as well as the Hirsch index of 9. The fact that 8 of the publications have been cited over 20 times is extremely impressive.

All these facts once again support the thesis that Dr. Bozhilov is a specialist in the field of AGN research.

Participation in a total of 20 research projects, of which in 8 as a leader only confirms the fact that the colleague can work and lead a research team.

6. Critical remarks and recommendations

We have to mention that with every scientific study there are different opinions, and they can be considered somewhat subjective. Therefore, in this paragraph I would like to bring up that D-r Bozhilov should not be ashamed if any statement that he published or presented. I am adopting this nontraditional approach because constructing my review is based on constructive criticism.

7. Personal impressions of the candidate

My only personal impressions of the colleague are from his public appearances on national media. His ability to present the complex processes and interactions in the universe with ease and in an understandable language is amazing. I wish him not to lose this skill, but to develop it.

8. Conclusion on the application

After getting acquainted with the materials and scientific works presented in the competition and on the basis of the analysis of their significance and the scientific and scientific-applied contributions contained in them, I confirm that the scientific achievements meet the requirements of LARB, the Regulations for its application and the respective Regulations of Sofia University "St. Kliment Ohridski "for holding the candidate for the academic position“ Associate Professor ”in the scientific field and professional direction of the competition. In particular, the candidate satisfies the minimum national requirements in the professional field and no plagiarism has been established in the scientific papers submitted at the competition.


I give my **positive assessment** of the candidacy.

II. OVERALL CONCLUSION

Based on the above, I **recommend** the scientific jury to propose to the competent authority for the selection of the Faculty of Physics at Sofia University "St. Kliment Ohridski "to elect Ch. Assistant Professor Dr. Vladimir Veselinov Bozhilov for the academic position of "Associate Professor" in the professional field 4.1. Physical sciences, scientific field Astronomy and astrophysics.

28.09.2021 г.

Prepared the review:


(prof. Dragomir Marchev PhD)