

OPINION



By Assoc. Prof. Mariyan Nedelchev Milev, PHD,

from the Department of Statistics and Econometrics, Faculty of Economics and Business Administration, 1113, 125 Tsarigradsko Shosse Blvd., bl. 3, Sofia University 'St. Kliment Ohridski', 1504 Sofia, 15 Tsar Osvoboditel Blvd., Bulgaria

Member of the scientific jury according to the Order of the Rector of the Agricultural University - Plovdiv N RD.16/19.01.2024g.

In relation to: Competition for the academic position "docent" in the scientific specialty Geometry and topology, field of higher education 4. Natural sciences, mathematics and informatics, professional direction 4.5 Mathematics, announced for the needs of the Faculty of Economics of the Agricultural University - Plovdiv, department Mathematics and informatics in the State Gazette, no. 97 of 21.11.2023 and on the website of the Agricultural University - Plovdiv.

The only candidate in the competition is Ch. Assistant Professor Dimitar Rumenov Razpopov, Ph.D., from the Department of Mathematics and Informatics at the Faculty of Economics at the Agrarian University - Plovdiv. In order to participate in the competition, the candidate has submitted a complete set of documents in accordance with ZRASRB, PPZRASRB as well as with the requirements of the Agricultural University – Plovdiv.

1. Career development

The candidate Dimitar Rumenov Razpopov was born on 12.12.1973 in the city of Plovdiv. He graduated in 1999 at the Faculty of Mathematics and Informatics of Plovdiv University "Paisiy Hilendarski" with a master's degree in "Mathematics and Informatics". In 2019, he successfully defended his dissertation on the topic "On the geometry of a Riemannian manifold with two circulant structures" and received a scientific and educational degree "Doctor" in the scientific specialty "Geometry and Topology" from Plovdiv University "Paisiy Hilendarski".

The teaching activity of the Assistant Professor Dimitar Razpopov started in 2004 as an "assistant" in the Department of "Mathematics and Informatics" of the Agrarian University - Plovdiv. In 2006, he held the position of senior assistant, and since 2008 he has been the chief assistant.

2. General description of the submitted materials for the competition

For participation in the competition, Chief assistant-professor Dimitar Rumenov Razpopov PHD has submitted ten publications in scientific publications that are indexed in Web of Science and/or

Scopus, one publication in a non-indexed journal, one book based on the protected dissertation work for obtaining the educational and scientific degree "doctor" , reference for citations of his works, 2 study aids, reference for participation in three scientific-applied and educational projects, reference for scientific supervision of four successfully defended graduates, as well as all other required documents (service notes, certificates, references for participation in projects and other relevant evidence). It is clear from the submitted documents and declarations that the scientific works presented by the candidate do not repeat those from previous procedures for acquiring a scientific title and academic position.

Scientific publications can be classified according to the place of publication as follows: five are referenced and indexed in Web of Science in journals with an impact factor (of which one in quartile Q2, one in quartile Q3 and three in quartile Q4), four are referenced and indexed in Scopus and one indexed in Zentralblatt.

A list of a total of nineteen citations of the candidate's works is presented, ten of which are cited in scientific publications referenced and indexed in Web of Science / Scopus.

3. Evaluation of the candidate's educational and teaching activities

The general teaching experience of the assistant-professor Dimitar Razpopov PHD at the Agricultural University - Plovdiv, according to the presented resume, is 19 years and 3 months old, with 2 years as an assistant, 2 years as a senior assistant and 15 years as a chief assistant. According to the requirements of the Academic Development Regulations at AU-Plovdiv, the candidate must have held the position of principal assistant or assistant for no less than 2 years.

The educational and teaching activities of the candidate include:

- Conducting lectures and seminars in the disciplines: Higher Mathematics, Linear and Analytical Geometry, Mathematical Analysis, Biostatistics, Applied Mathematics, Optimization Methods, Statistics, Game Theory, Financial Mathematics and Business Logistics, Econometrics, Statistical Data Processing.
- Development of lecture courses and seminar exercises.
- Management of 4 graduates.
- Two manuals have been produced.

The average academic normative of the candidate significantly exceeds the norm for a non-associate teacher.

My assessment of the candidate's educational and teaching activity is positive. It is based on the submitted reference for his activity with students, the reference for the candidate's classroom and extra-auditory employment, the presented study manuals.

4. Evaluation of scientific research activity

The candidate has defended dissertation on the topic "On the geometry of a Riemannian manifold with two circulant structures", covering the required **50 points** under **group A, indicator 1**.

In group B, indicator 4, 4 publications with numbers (1), (2), (3) and (4) are included, such as:

- publication number (2) is in an edition with an impact factor and falls in the Q3 quartile of Web of Science;
- publications with numbers (1), (3) and (4) are in editions with SJR, referenced and indexed in Scopus.

The total number of points in **group B is 135**, which exceeds the required 100 points.

Group D includes one book based on the protected dissertation work for obtaining the educational and scientific degree "doctor" and **6 publications** with the numbers (5), (6), (7), (8), (9) and (10)), as:

- according to indicator 6: A book was published based on a protected dissertation work for awarding the educational and scientific degree "doctor" with the title '*On the geometry of a Riemannian manifold with two circulant structures*', author: Dimitar Razpopov, (2023), Intel Entrans publishing house, ISBN : 978-619-7703-48-1;;
- according to indicator 7: Publications with numbers (6), (8), (9) and (10) are in publications with an impact factor – number (6) falls into quartile Q2, and publications (8), (9) and (10) fall into quartile Q4. Article with number (5) is in an edition referenced and indexed in Scopus, and number (7) is in an edition referenced and indexed in Zentralblatt.

The total number of points in **group D is 224**, which exceeds the required **200 points**.

In **group D**, indicator 11, evidence is presented for **10 citations** (not including self-citations) in scientific publications, referenced and indexed in Web of Science and Scopus.

The total number of points in **group D is 80**, which exceeds the required **50 points**.

Part of the scientific activity of the Assistant-professor Dimitar Razpopov, PH.D., is funded by participation in 3 scientific projects.

The number of points in **group E, indicator 14 is 30 points**. In **group E, indicators 14 and 15, the total number of points is 35**.

The total number of points from **Group A to Group D is 524**.

Ch. Associate Professor Dimitar Rumenov Razpopov, Ph.D., participates in the current contest with a scientific production that meets and even exceeds the minimum national requirements and those of the Agricultural University - Plovdiv for holding the academic position of "associate professor".

5. Scientific contribution evaluation

The articles submitted for participation in the competition can be grouped into three groups:

- The first group is the articles in which three-dimensional Riemannian manifolds with circulant structures, as well as four-dimensional Riemannian manifolds with circulant or oblique-circulant structures are discussed. Some curvature properties of the considered manifolds are found. Corresponding ones associated with the four-dimensional manifolds – Riemannian manifolds with product structure or Hermitian manifolds – are also considered. Examples with Lie groups are constructed.
- The second group is the articles in which Riemannian manifolds with an attached indefinite metric are considered. Hyperspheres, spheres and circles are studied in terms of the indefinite metric and their equations in Euclidean space are obtained. The corresponding physical work done by forces along isotropic directions with respect to the indefinite metric is calculated. The circulation of the vector force field along a closed curve is obtained, as well as the flow of this vector force field through the curve.
- The third group is the articles concerning the applications of mathematics in the natural and agrarian sciences, as well as the statistical analysis in the agrarian sector.

6. Conclusion

Chief assistant-professor Dimitar Rumenov Razpopov PHD is a built specialist with a wide range of scientific interests and a solid teaching experience. His scientific research activity has a wide thematic scope. His scientific works contain important scientific contributions.

Based on my overall assessment, I believe the candidate Dimitar Rumenov Razpopov in the competition satisfies all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and the rules for its implementation, the requirements in Art. 65 of the RDASPU, as well as the additional requirements of the Agricultural University - Plovdiv for occupying the academic position of 'Associate Professor'.

The materials and scientific works presented in the competition, and the analysis of their significance and applied contributions, give me the reason to give my **positive** evaluation and to **recommend** that the Scientific Jury to propose to the Faculty Council of Economics **chief assistant-professor Dimitar Rumenov Razpopov PHD** to be elected to the academic position of "Associate Professor" in "Geometry and Topology" at the Faculty of Economics of the Agrarian University - Plovdiv in the field of university education 4. Natural sciences, mathematics and informatics, professional direction 4.5. Mathematics.

08.02.2024

Plovdiv

Drawn up by: 

Assoc. Prof. Mariyan Nedelchev Milev, PHD