

## **Referees Report**

From Ekaterina Petrova Mihaylova

Associated professor at the Faculty of Geodesy

University of Architecture, Civil Engineering and Geodesy, Sofia

As a member of the scientific jury

РД – 21 – 387 / 16.02.2024

Regarding the documents submitted by Iva Roumenova Dokouzova

Applying for an academic position associated professor

At the University of Plovdiv “Paisii Hilendarski”

Area of higher education 4 Natural sciences, mathematics and informatics

Professional area 4.5 Mathematics, (Geometry and Topology)

As the only participant, Iva Roumenova Dokouzova, applies in the concurs announced in the Bulgarian State journal 96/17.11.2023 for the academic position associated professor at the Department of Algebra and Geometry, Faculty of Mathematics and Informatics at the University of Plovdiv “Paisii Hilendarski”

### **1 General Information about the concurs and the candidate**

Iva Roumenova Dokouzova is the only participant in the concurs announced in the Bulgarian State Journal 96/17.11.2023 for the academic position associated professor at the Department of Algebra and Geometry, Faculty of Mathematics and Informatics at the University of Plovdiv “Paisii Hilendarski”. The candidate has submitted all necessary documentation and information and she has submitted all tables as a proof that she meets the minimal national requirements for the position associated professor.

Iva Dokouzova obtained her higher degree at the faculty of Mathematics and Informatics of the University of Plovdiv, major Mathematics, specialization “Mathematical structures” in 1994.

The candidate completes her PhD education by defending a PhD thesis “On the Geometry of almost complex manifold with an almost product structure” and has a PhD diploma from the Higher Attestation Committee major 01.01.06 Geometry and Topology.

The candidate has a position of deputy assistant professor at the Department of Algebra and Geometry at the Faculty of Mathematics and Informatics at the University of Plovdiv “Paisii Hilendarski” more than 21 years.

## 2 General information on the scientific research and teaching work of the candidate

Iva Roumenova Dokouzova does her research in the area of Differential Geometry. Her papers are regarding three-dimensional and four-dimensional Riemannian manifolds equipped with and additional structure. Some of the additional structures are obtained by a circulant or a skew circulant matrix which fourth power is the identity. The metric and the additional structure are compatible and isometry is induced in every tangent space. Examples of such manifolds in Lie groups have been constructed and some of their geometric characteristics have been studied.

The candidate Iva Dokouzova has published a book of 104 pages on the basis of her research on such manifolds with an additional structure. This serves as a Habilitation work and fulfils the third indicator of the minimal national requirements.

On the fourth indicator of the minimal national requirements ( $\Gamma$ ) the candidate has submitted one paper in a journal with an Impact Factor in Q1, two papers in a journal with an Impact Factor in Q2, three papers in a journal with an SJR and four papers in a journal refereed in scientific reviewing services such as Zentralblatt etc.

She has submitted 19 citations of hers in journals.

All submitted papers and citations of Iva Roumenova Dokouzova meet the minimal national requirements as well the specific ones of the University of Plovdiv "Paisii Hilendarski".

She has written a manual on Higher Mathematics and a book "Mathematical basis in Computer Graphics" in 2023.

In the documentation submitted by Iva Dokouzova in the concours 15 papers of hers have been presented 9 of which are with one author, 4 with two more coauthors and 2 with one more coauthor.

She has presented 17 talks in conferences, 6 of which at the International Conference Geometry and Applications in Varna in 2007, 2009, 2011, 2013, 2015 and 2019, 3 of them at the Spring Conference of the Bulgarian mathematical society in 2008, 2011 and 2018 and two online talks at the conference Differential geometry and Dynamical systems, Bucurest, Romania 2021 and 2022.

The candidate Iva Dokouzova participates in scientific projects of the University of Plovdiv "Paisii Hilendarski" from 2015/16 and 2017/18 and in one project in program "Science and Education for an intelligent development".

Iva Dokouzova has a variable teaching experience in many disciplines such as Synthetic geometry, Differential geometry, Descriptive geometry, Analytical geometry, Mathematical basis of

the computer graphics and others. She has presented an information on her annual teaching of over 320 hours per year over the past years.

Her documentation is strictly ordered and clearly presented as to be easily reviewed. Iva Dokouzova has a sufficient quantity of scientific work, papers and talks as well as citation. She works with different coauthors and participates and scientific and educational projects which shows her ability to cooperate with others.

I have no critical comments neither critical remarks.

### **Conclusion**

After regarding the documentation, scientific papers and information presented in the concours and after analysing their impact and citations I have a positive opinion and recommend to the Scientific jury to make a proposition to the Faculty of Mathematics and Informatics to approve for Iva Roumenova Dokouzova to become an associated professor at the University of Plovdiv “Paisii Hilendarski” in the Area of higher education 4 Natural sciences, mathematics and informatics Professional area 4.5 Mathematics, (Geometry and Topology).

02.04.2024

**Reviewer:** .....

Associated prof. Ekaterina Mihaylova