

## STATEMENT REPORT

On the announced competition for a position of

„Professor“

in the professional field:

**4.5. Mathematics (Finite Geometries),**

**at the Sofia University „St. Kliment Ohridski“ (SU),**

**Faculty of Mathematics and Informatics (FMI),**

**announced in the State Gazette (Darzhaven vestnik) no. 67 / 04.08.2023 г.**

**and at the websites of the FMI and SU.**

Author of the Statement Report: **prof. PhD Nikolai Lazarov Manev,**

at The Institute of Mathematics and Informatics - BAS

as a member of the Scientific Jury according to the Order no. ПД 38-576 / 05.10.2023 г.

of the на Rector of SU.

There is only one applicant:

**Associate professor PhD Assia Petrova Rousseva-Landjeva**

### **I. General description of the procedure and the applicant.**

#### **1. Description of the documents presented by the applicant.**

Applicant's documents correspond to the requirement of the government [Act on Development of the Academic Staff in the Republic of Bulgaria](#) and SU (see ЗРАСРБ, ППЗРАСРБ and ПУРПНЦЗАДСУ).

Assia Rousseva-Landjeva presents for evaluation 18 her papers: 11 of them with impact factor (IF), 4 with SJR, and the rest 3 can be found in Web of Science (without IF), Scopus (without SJR), MathSciNet, zbMATH, and/or in IEEE Xplore. These papers have not been used for acquiring the PhD degree and her previous academic positions. The total number of publications of the applicant is 55.

The set of application documents includes also 16 other documents, namely: CV, copies of diplomas for Magister, PhD, and Associate professor, information for teaching work-load of the applicant, information that the applicant meets minimal national requirements for the position as well as the Regulations for the conditions and rules for acquiring academic position at SU, author's summary, list of citations, description of contributions, etc.

All documents are prepared with much care and give detailed information about teaching and research activities of Assia Rousseva-Landjeva.

## **2. Biographical data about the applicants.**

Assia Rousseva-Landjeva was born on 06.04.1965. She acquires the degree Magister in mathematics with specialization in Geometry in 1988 at the FMI of SU. The Ph.D. degree was conferred on her in 2005 after the defense of the thesis “Arcs in finite projective geometries and their application to coding theory”. The thesis was written at the department Mathematical Foundations of Informatics of the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences under supervision of Ivan Landjev. The defense of the thesis “Finite Geometries and Codes” on 30.07.2020 bring to her the title “Doctor of Sciences”. Since 1993 she is at fulltime position at FMI. Recently the applicant is Associate professor at the department “Geometry” of FMI.

## **3. General characterization of the research and the results of the candidates.**

The submitted information concerning article 26 of the [Act on Development of the Academic Staff in the Republic of Bulgaria](#), demonstrates that the candidate not only meets, but she significantly exceeds the legislative requirements. Her indicators “B” and “Г” are 120 and 543 points while the required values are 100 and 200, respectively. Indicators Д and E exceed the minimal requirements, too.

The scientific contributions of Assia Rousseva-Landjeva are original and there are no doubts about plagiarism. The fact that her papers are published in prestige journals with high IF is attestation for their originality and high scientific level.

## **4. Characterization of the educational activity of candidates**

Assia Rousseva-Landjeva has given seminars and lectures on all basic geometrical courses to students of SU with different specialty as well as on additional electable by students courses. As far as I am concerned she is a reputable and likeable lecturer.

## **5. Analysis of scientific contributions of the candidate presented in the submitted papers.**

Scientific results obtained in the papers included in the submitted documents of the candidate are in the following mathematical areas:

- Constructions and structure results for arcs, in partial for  $(t \bmod q)$ -arcs, and следствията for codes. To this area we can attach the papers with numbers 2, 4, 8, 9, 10, 12, 13, 15, 16 in the list of resumes 17-PublicationsSummary.pdf.
- Affine blocking sets: papers 7, 17, 18.
- Bounds on cardinality and constructions/nonexistence of binary codes with small number of weights and distances: papers 3, 6, 11.
- Classification of minihypers (5), projective Hjelmslev plane (1), and geometrical approach to the sharpness of Griesmer bound (14).

15 of all 18 papers are in journals with IF or SJR.

Scientific contributions of the candidate are enrichment and extension of the knowledge as well as development of new methods for solving the studied problems.

The applied declarations of the coauthors of Assia Rousseva-Landjeva and my personal impressions show that her contributions to joint papers are equipollent.

Assia Rousseva-Landjeva has attached a list of 31 citations of her papers in papers and monographs of other authors (without coauthors), which are indexed in Web of Sciences and Scopus, and list of 23 citations in other sources. The information is very detailed with complete bibliographical information. My conclusion is that Assia Rousseva-Landjeva is well known to the researchers working in her scientific area.

## **6. Critical notes and recommendations**

I have no critical notes.

## **7. Reviewer's opinion about the candidate**

My personal impressions are that Assia Rousseva-Landjeva fully corresponds to Society's concept about professor in the Sofia University „St. Kliment Ohridski”

## **8. Conclusions about the candidature**

After my acquitting with the presented by the candidate documents and papers based on the careful analysis of them I **confirm** that the scientific contributions of the candidate meet the requirements of [Act on Development of the Academic Staff in the Republic of Bulgaria](#), the Regulations for its application, and the Regulations for the conditions and rules for acquiring scientific degree of the Sofia University “St. Kliment Ohridski” for taking on the position “Professor” in the announced scientific area. I give my **positive estimation** of the candidature.

## II. GENERAL CONCLUSION

Based on aforesaid in this report I **strongly recommend** the Scientific Jury to propose the Scientific Council of the Faculty of Mathematics and Informatics **to confer on Assia Rousseva-Landjeva the rank and position “Professor” at the Faculty of Mathematics and Informatics in the professional field 4.5. Mathematics (Finite Geometries).**

10.11.2023.

Reviewer: .....

(Prof. PhD Nikolai Manev)