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ASSESSMENT

by Prof. Dr. Lyubomir Dimitrov

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Member of the Scientific Jury for the Competition for Occupying the Academic Position of “Associate Professor” at IO-BAS, Varna in the Field of Higher Education: Code 4. “Natural Sciences, Mathematics and Informatics”, Professional Field: Code 4.4. “Earth Sciences”, Scientific Specialty: “Oceanology”, Scientific Direction: “Wave Processes, Coastal Hydrodynamics and Risk in the Coastal Zone”

1. Data on the Procedure and the Competition

The competition for occupying the academic position of “Associate Professor” was announced in the *State Gazette* No. 63 / 01.08.2025. Only one candidate applied for participation in the competition – Dr. Natalia Kamenova Andreeva, Chief Assistant in the scientific section “Coastal Zone Dynamics” at IO-BAS, Varna.

At the meeting held on 10.10.2025, the Admission Committee established that the documents submitted by the candidate for participation in the competition meet the requirements of Art. 19 and Art. 24, para. (1) of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB); Art. 52, para. (1) and Art. 53, para. (4) of the “Rules for the Conditions and Procedures for Acquiring Educational and Scientific Degrees and for Occupying Academic Positions at IO-BAS, Varna” and admitted her to participate in the competition.

On the basis of the Decision of the Scientific Council of IO-BAS dated 17.09.2025, the Director of IO-BAS issued Order No. 298 of 26.09.2025 regarding the composition of the scientific jury for the competition. In accordance with this order, the first meeting of the scientific jury was held on 10.10.2025. The present opinion has been prepared on the basis of the decisions taken at that meeting.

Chief Assistant Dr. Natalia Andreeva has submitted comprehensive documentation, which allows the preparation of a well-founded opinion regarding her research activity and compliance with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and its implementing regulations. The available information shows that no violations were committed in the procedure of the competition or in determining the composition of the scientific jury.

2. Candidate Data

Natalia Andreeva was born on October 18, 1974, in Varna. In 1997, she completed her higher education at the Civil Maritime Faculty of the Nikola Yonkov Vaptsarov Naval Academy, specializing in *Oceanology*, and obtained the professional qualification of *Master in Oceanology*.

Between 1998–1999, she studied at the University of Chemical Technology and Metallurgy in Sofia, following a European Master’s program in *Environmental Protection and Sustainable Development*, and earned a second master’s degree as *Master Ecologist* in the specialty *Environmental Protection and Sustainable Development*.

In 2000, the candidate was appointed as a specialist at IO-BAS, Varna, and enrolled in full-time doctoral studies (2000–2003) in the scientific specialty *Oceanology*, within the section *Coastal Zone Dynamics*. In 2004, the Higher Attestation Commission awarded her the educational and scientific degree *Doctor*, based on the successful defense of her dissertation entitled *Experimental Methods for Studying the Nonlinearity of Wind Waves in the Coastal Zone*. That same year, she was reappointed at IO-BAS, Varna, as Research Associate III rank, and in 2007 promoted to Research Associate II rank. In 2011, the Scientific Council of IO-BAS elected her to the academic position of *Chief Assistant Professor* in the specialty *Oceanology*, within the section *Coastal Zone Dynamics*, a position she continues to hold.

Dr. Natalia Andreeva’s professional experience as Chief Assistant Professor spans 14 years, which significantly exceeds the requirements of Article 52 of the IO-BAS Regulations for occupying the academic position of *Associate Professor*.

Since 2007, she has participated in numerous national and international training courses (a total of 10) under various programs. Dr. Andreeva has correctly oriented her research toward advanced methodologies, such as hydrographic techniques for spatial measurement of coastal current circulation and cross-sectional measurement of water flows and discharge in artificial and natural channels. These direct measurements contribute substantially to the study of the structure and variability of coastal circulation and support modeling research in coastal hydro- and morphodynamics.

Dr. Andreeva demonstrates excellent proficiency in both English and Russian.

The review of the documents submitted by Chief Assistant Professor Dr. Natalia Andreeva for participation in the competition confirms that she fully meets the minimum national requirements as well as those stipulated in the IO-BAS Regulations for occupying the academic position of *Associate Professor* in Professional Field 4.4. *Earth Sciences*.

I have known the candidate since her appointment at the Institute, and my personal impressions of her are outstanding. She is a dedicated scholar with strong expertise in her field, who closely follows innovations, continuously enhances her qualifications, and expands her professional competence, as evidenced by the numerous training courses she has attended. She is a well-established scientist, meticulous in detail, adaptable, and independent.

3. Publications and Citations

For participation in the competition, Chief Assistant Professor Dr. Natalia Andreeva has submitted a total of **32 scientific publications**, of which **6 are related to the acquisition of the educational and scientific degree “Doctor”**, and **26 are presented for the current competition** (22 of these are published in journals indexed and referenced in *Web of Science* /

Scopus). In addition, outside the compliance report with the minimum national requirements and those of IO-BAS, she has submitted **5 scientific publications** in journals not indexed in internationally recognized scientific databases.

The submitted report shows that the publications for the competition include both scientific articles indexed in *Scopus* with quartiles Q1, Q2, Q3, and Q4 according to the SJR metric (under indicators B4 and G7), as well as “other” peer-reviewed scientific publications (under indicator G7).

Quartile distribution of publications:

- 5 publications in Q1 journals
- 6 publications in Q2 journals
- 4 publications in Q3 journals
- 8 publications in Q4 journals

The majority of the publications — **28 in total** — are in English, with only **3 in Bulgarian**.

The candidate has no single-author publications. However, Dr. Andreeva is the **leading author in 7 publications**, and in **8 publications she is listed second as corresponding author**. This highlights her role as both a *team player* and a researcher with a personal contribution to the scientific problems under investigation.

Based on the submitted publications, under the minimum requirements for **Group B indicators** for the academic position of *Associate Professor*, the candidate accumulates **129 points**, exceeding the required minimum of 100 points. Under **Group G indicators**, with a minimum requirement of 220 points, the candidate achieves **238 points**. Thus, in both categories, she surpasses the minimum required thresholds.

Dr. Andreeva has also provided evidence of **204 citations** across 18 cited publications. Of these:

- **180 citations** are in scientific journals indexed in internationally recognized databases (*Scopus* and/or *Web of Science*).
- **16 citations** are in peer-reviewed monographs and collective volumes.
- **26 citations** are in non-indexed peer-reviewed journals.

The presented citations under **Indicator D** amount to **905 points**, exceeding the minimum requirement of 60 points more than twelvefold. The citations visible in *Scopus* and/or *Web of Science* provide indisputable evidence of the quality and impact of her scientific output.

4. Teaching and Academic Activities

The submitted report on participation in research projects shows that Dr. Natalia Andreeva has been involved in the implementation of **28 scientific projects** — **10 international** and **18 national**. In one national project she served as coordinator on behalf of IO-BAS, while in the remaining projects she was a member of the scientific teams. This highlights her strong ability to work collaboratively within research groups.

With the exception of three projects aimed at science popularization (*European Researchers' Night* under the Horizon Europe and Horizon 2020 programs), all other projects are purely research-oriented, and Dr. Andreeva's contribution is indisputable.

Analysis of her project activity demonstrates her commitment to addressing issues related to changes in the wave climate, particularly extreme hydrometeorological events in the western Black Sea. Her work has focused on:

- **Investigating the regularities of coastal zone formation and dynamics**, by tracing causal relationships between driving forces (sea waves, their nonlinear structure and transformation) and the resulting changes in the above-water and underwater coastal relief, based on instrumental and field measurements.
- **Assessing coastal risks** associated with flooding and erosion caused by sea waves.

Her overall project activity provides clear evidence of both her personal scientific contribution and her ability to work effectively as part of a team.

Section 5: Scientific and Applied Contributions / Overall Evaluation

The candidate has presented **11 scientific contributions**, summarized in four thematic areas, and **18 applied scientific contributions**, summarized in five thematic areas. Each contribution is supported by publication materials and references to the projects from which the data were obtained, analyzed, and the corresponding conclusions drawn.

The declared contributions can be systematized into the following directions:

- Investigation of the **wind-wave climate in the Black Sea**.
- Study of **storm activity and morphodynamics of sandy coasts** along the Bulgarian Black Sea shoreline.
- Research and assessment of **wave impact and vulnerability of the coastal zone**.
- Evaluation of the **energy potential of sea waves** in the Black Sea and along the Bulgarian coast.
- Assessment of **coastal risk from extreme storms**.
- Evaluation of the **influence of coastal protection hydraulic structures** on the dynamics of coastal processes.

This clearly demonstrates the thematic coherence of the scientific and applied contributions with the research field of the competition.

It is noteworthy that the expression "*for the first time...*" appears **15 times** in the text of the declared contributions, which emphasizes their innovative character and significance.

I accept all of the candidate's claims regarding scientific and applied contributions, as I consider them to substantially enrich the existing knowledge in the fields of wave processes, coastal hydrodynamics, and risk assessment. In my view, they reflect the candidate's sound research

approach and analytical thinking, and I recognize them as original contributions in which her personal input is indisputable.

Section 6: Overall Evaluation and Recommendation

The above considerations regarding the content, relevance, and significance of the candidate's scientific activity, the recognized scientific and applied contributions, as well as her personal qualities, convincingly demonstrate that Chief Assistant Professor Dr. Natalia Andreeva possesses a clearly defined and solid research profile in the scientific field of the competition. All minimum requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and the IO-BAS Regulations have been met and exceeded.

On this basis, I express my positive opinion and will confidently vote **in favor** of Chief Assistant Professor Dr. Natalia Andreeva being appointed to the academic position of *Associate Professor* in Professional Field 4.4: *Earth Sciences*, Scientific Specialty: *Oceanology*, Research Area: *Wave Processes, Coastal Hydrodynamics, and Risk in the Coastal Zone* at the Institute of Oceanology – BAS, Varna.

12.11.2025