

1st International Scientific Conference “Modern problems in Geophysics”

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ABSTRACT

Information about the 1st International Scientific Conference “Modern problems in Geophysics”, which was held on November 6-8, 2025 at Ivane Javakhishvili Tbilisi State University is presented.

Key words: *Earth and its envelopes, geophysical processes, complex geophysical monitoring, natural disasters, earth ecology, mitigation, promoting sustainable development.*

Introduction

On November 6-8, 2025, the 1st International Scientific Conference “Modern Problems of Geophysics” organized by the M. Nodia Institute of Geophysics was held at Ivane Javakhishvili Tbilisi State University. Scientists of the relevant fields from Georgia, Armenia, Azerbaijan, Italy, Germany, Slovenia, the Chechen Republic, Belarus, and others participated in the conference. Scientists presented the results of new researches. Scientific problems arising from the conference topic were discussed.

The aim of the conference was to present the results of research in the field of complex geophysical monitoring in Georgia and other countries (history, modern problems, assistance to sustainable development of countries) at the plenary session (oral\poster\video). As well as presentation of reports selected by the scientific committee and their discussion at plenary, sectional sessions and in the form of poster reports.

The target group was Georgian and foreign scientific, educational, governmental and non-governmental organizations, which have direct contact with the theme of the conference (universities, research institutes, educational organizations, structures of emergency situations, etc.).

The conference participants were given certificates. A book (**1st International Scientific Conference “Modern problems in Geophysics”. Proceedings, ISBN 978-9941-36-434-1, ISSN 3088-4349, Tbilisi, Georgia, November 6-8, 2025. Publish House of Iv. Javakhishvili Tbilisi State University, Tbilisi, 2025**) of conference materials (papers) was published in printed and electronic form.

The collection of conference materials and all of its separate articles is available on the website of the National Scientific Library: <http://openlibrary.ge/handle/123456789/10715>

Goal of the Conference

- Discovering the potential scientists in the field of complex geophysical monitoring;
- Establishing and strengthening connections of scientists;
- Defining the prospects for the development of scientific research;
- Identify opportunities for improving the scientific-educational field of secondary and higher education institutions in relation to the issues of the conference;
- Strengthening international scientific cooperation on conference topics;
- To acquaint the world scientific community, governmental structures, other interested organizations

and individuals with the current state of the problems related to the fields of complex geophysical monitoring.

Conference Organizers

The conference was organized by:

- Ivane Javakhishvili Tbilisi State University, Mikheil Nodia Institute of Geophysics;
- Georgian Technical University, Institute of Hydrometeorology;
- Georgian Geophysical Association.

Scientific Committee and Editorial Board

Tamaz Chelidze: Academician, Chairman of the Scientific Committee, Editor-in-Chief; **Nodar Varamashvili, Jemal Kiria:** Co-Chairmans of the Scientific Committee - TSU, M. Nodia Institute of Geophysics, Georgia; **Nana Bolashvili:** Co-Chairman of the Scientific Committee – TSU, Vakhushti Bagrationi Institute of Geography, Georgia; **Mikheil Pipia:** Co-Chairman of the Scientific Committee – GTU, Institute of Hydrometeorology, Georgia; **Avtandil Amiranashvili** (Deputy Editor-in-Chief); **Aliiev Vugar** - CEO & Founder, International Event Organizer Company AMIR Technical Services Azerbaijan, Azerbaijan; **Davitashvili Magda** - I. Gogebashvili Telavi State University, Telavi, Georgia; **Fórizs István-** Institute for Geological and Geochemical Research, Hungary; **Ghlonti Nugzar, Melikadze George** - TSU, M. Nodia Institute of Geophysics, Georgia; **Japaridze Nino** - Tbilisi State Medical University, Georgia; **Kartvelishvili Liana** - National Environmental Agency, Georgia; **Khazaradze Ketevan** - Georgian State Teaching University of Physical Education and Sport, Georgia; **Nazaretyan Sergey-** Regional Survey for Seismic Protection, Ministry of Internal Affairs of the Republic of Armenia, Armenia; **Rustioni Laura, Pappaccogli Gianluca** - University of Salento, Italy; **Tatishvili Marika, Meladze Maia-** GTU, Institute of Hydrometeorology, Georgia; **Varazanashvili Otar** - TSU, M. Nodia Institute of Geophysics, Georgia; **Vaupotič Janja**– Jožef Stefan Institute, Slovenia.

Organizing Committee

Ekaterine Mepharidze, Chairman of Organizing Committee; **Manana Nikolaishvili:** Deputy Chairman of Organizing Committee; **Irma Glonti, Aleksandre Sborshchikovi, Thea Gventsadze, Sophiko Matiashevili, Dimitri Amilakhvari, Dimitri Tepnadze, Levan Laliashvili** – TSU, M. Nodia Institute of Geophysics, Georgia; **Nino Taniashvili** - Georgian Geophysical Association, Georgia; **Nazibrola Beglarashvili,** - GTU, Institute of Hydrometeorology, Georgia; **Inga Janelidze** – Georgian Technical University, Georgia.

Conference Themes – All problems of the complex geophysical monitoring in Georgia and other countries.

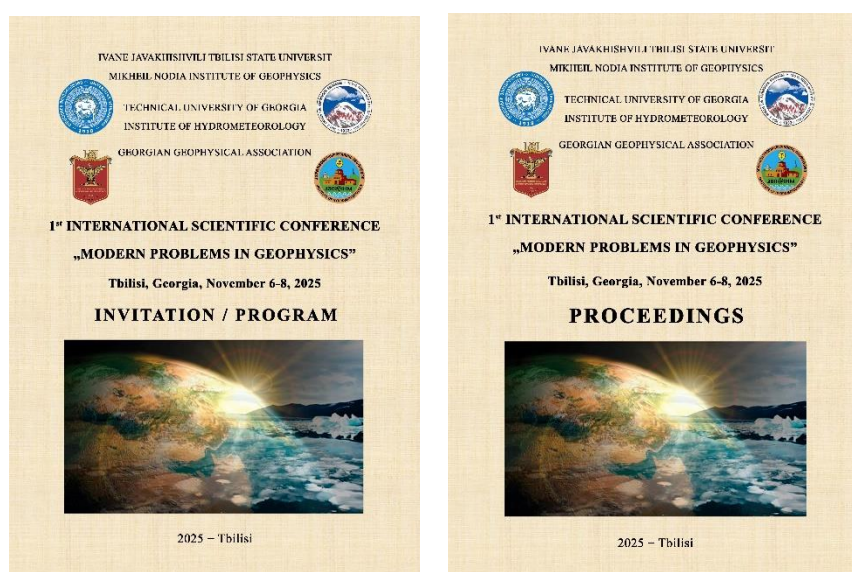
Expected Results

- Promoting historical and modern achievements in the field of complex geophysical monitoring;
- To acquaint the world community with the current state of the problems related to the complex geophysical monitoring;
- Enhance international cooperation for the scientific and practical application of modern achievements related to the conference topics;
- Assess the social and economic risks associated with the conference topics and identify opportunities for joint action to prevent these risks;
- Assess opportunities to expand the use of complex geophysical monitoring to support sustainable development of countries;
- Identify opportunities to improve the scientific-educational base of secondary and higher education institutions in the field of complex geophysical monitoring.
- The conference was opened by the deputy rector of Ivane Javakhishvili Tbilisi State University Nino Gvenetadze, chairman of the scientific committee academician Tamaz Chelidze, co-chairman of the scientific committee, deputy director of Mikheil Nodia Institute of Geophysics,

TSU, Nugzar Ghlonti and co-chairman of the scientific committee, director of Institute of Hydrometeorology, GTU, Mikheil Pipia. Speakers made a general overview about the modern problems of the complex geophysical monitoring in Georgia and wished the conference participants fruitful work.

- A total of 73 oral and posters presentations at the conference (see References) were considered and published.
- The proceedings of this conference as a whole, as well as its individual works, are published and posted on the portal of the M. Nodia Institute of Geophysics, which are included in the international electronic library data base DSpace, indexed in Google Scholar and Publish or Perish.
- According to the results of the conference, a decision was made, in which the achievements and gaps in the directions of the complex geophysical monitoring in Georgia and other countries are discussed. Future meetings have been planned.

Photos from Conference













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პირველი საერთაშორისო კონფერენცია „გეოფიზიკის აქტუალური პრობლემები“

ე. მეფარიძე, მ. ნიკოლაიშვილი

რეზიუმე

წარმოდგენილია ინფორმაცია პირველ საერთაშორისო სამეცნიერო კონფერენციაზე „გეოფიზიკის აქტუალური პრობლემები“, რომელიც ჩატარდა 2025 წლის 6-8 ნოემბერს ივანე ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტში.

საკვანძო სიტყვები: დედამიწა და მისი გარსები, გეოფიზიკური პროცესები, კომპლექსური გეოფიზიკური მონიტორინგი, ბუნებრივი კატასტროფები, დედამიწის ეკოლოგია, შედეგების შერბილება, მდგრადი განვითარების ხელშეწყობა.

1-я Международная научная конференция “Актуальные проблемы геофизики”

Е. Мепаридзе, М. Николаишвили

Резюме

Представлена информация о 1-й Международной Научной Конференции “Актуальные проблемы геофизики”, которая была проведена 6-8 ноября 2025 года в Тбилисском государственном университете им. Ивана Джавахишвили.

Ключевые слова: Земля и ее оболочки, геофизические процессы, комплексный геофизический мониторинг, стихийные бедствия, экология Земли, смягчение последствий, содействие устойчивому развитию.