GOALS AND PERSPECTIVES

CERN Cognitive Festival in Georgia
GTU, October 22 – 26, 2018
Integration of Georgian scientists with the European and wider research centers.
Associate Membership of the CERN

MEMBER STATES
ASSOCIATE MEMBER STATES
ASSOCIATE MEMBERS IN THE PRE-STAGE TO MEMBERSHIP
OBSERVERS
OTHER STATES
Project Name: Geo-Grid System
Physical Location: MICM;
Architecture: Intel Xeon (Skyline) (288 proc., 5760 cores);
Intel Xeon Phi Knights Landing (2 gen) (60 proc., 4080 cores);
CPU cores in total: 9840;
RAM: 33.3 TB (DDR4);
Storage: 2 PB;
Performance: 551+ტერაფლოპსი (TerraFLOPs);
Operating System: Scientific Linux-ი
Scientific Departments of MICM

- Department of Computational Methods
- Department of Probabilistic and Statistical Methods
- Department of Mathematical Modeling
- Department of Informatics
Main Research Fields

✓ Information Technologies

✓ Computational Methods

✓ Probability Theory and Mathematical Statistics

✓ Operations Research

✓ Problems of Mathematical Physics

✓ Analysis and etc.
Challenges and Problems of the Science and Society

Science

- Seeks to improve
- Informs

Technology

- Demands more
- Technology is the use or application of scientific knowledge for a specific goal or purpose

Society

- Benefits from
- Makes life easier

Future
Nowadays the Paradigm in a broad sense is much the same, but the research tools have changed and heavily depend on large scale computing with enormous data as well as on relevant mathematical algorithms.

The main goal of MICM is to integrate and synchronize its research with the current mainstreams.
Our Research Plan includes modern problems related to the Parallel Computing, Big Data and Machine Learning, Statistics and etc.
Goals and Objectives!

- Have a mixture of HPC (High Performance Computing) and HTC (High Throughput Computing) oriented architectures.

- HPC platform will serve as a multipurpose super computer for solution and analysis of tasks and challenges mainly from environmental, water resources and Geophysics related research domains.

- Appropriate Scientific Cluster/Consortium, consisting of the research institutes of GTU will be created, where MICM with its Computational capacities will be in the center of this Cluster.
The inflow of the Young Generation with the knowledge of modern research technologies is crucial for us. We are lucky to say that this process has started and we already have several young scientists.
THANK YOU FOR YOUR ATTENTION!