

Niko Muskhelishvili Institute of Computational Mathematics
Scientific Report

2014B

Sector of Computational Methods

* Scientific-Research Works Planned and Implemented in 2014 Funded by the **State Budget of Georgia**

#	Planned and Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	Computational methods in the tasks of mathematical physics and engineering mechanics Mathematics; Computational mathematics.	J. Sanikidze	M. Zakradze, M. Mirianashvili. G. Khatiashvili, Z. Khukhunashvili, D. Kurdghelaidze, Z. Sanikidze, Ed. Abramidze, K. Kupatadze, A. Chaduneli, N. Koblishvili, N. Peikrishvili, El. Abramidze

Sector of Probability-Statistic Methods

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#	Planned and Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	Unconditional and diagonally canonical random elements of Gauss. Mathematics. theory of	V. Tarieladze	V. Tarieladze, V. Kvaratskhelia

	Probability		
2	Work	Work Supervisor	Work Performers
	Study on the existence of the rotation of random circuits. Applications functional analysis and scheduling theory. Mathematics, Functional Analysis	S. Chobaniani	S. Chobaniani, V. Tarieladze, V. Kvaratskhelia, A. Shangua, G. Giorgobiani
3	Stochastic type of rhymentilates integration research in infinite dimensional case. Mathematics, Theory of Probability	B. Mamporia	V. Tarieladze, S. Chobaniani, G. Chelidze, B. Mamporia
4	Sequences and related topologies in groups. Mathematics, Theory of Topologic Groups	V. Tarieladze	V. Tarieladze

Sector of Mathematical Modeling

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#	Planned and Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	Investigation of ergodic stationary processes in supply	J. Giorgobiani	J. Giorgobiani, M. Nachkebia

	management theory		
2	Work	Work Supervisor	Work Performers
	Mathematical modeling of the optimal search of the unit in the district	J. Giorgobiani	J. Giorgobiani, M. Nachkebia
3	Work	Work Supervisor	Work Performers
	The use of elliptical curves in cryptography on finite fields	D. Ugulava	N. Kandelaki, T. Chantladze, D. Ugulava, Z. Kipshidze
4	Work	Work Supervisor	Work Performers
	Practical realization of the computed tomography task algorithm	D. Zarnadze	D. Zarnadze, D. Ugulava
5	Work	Work Supervisor	Work Performers
	Statistical assessment of expected changes in air temperature	T. Khurodze	T. Khurodze
6	Work	Work Supervisor	Work Performers
	Quasi linear equations and systems	M. Menteshashvili	M. Menteshashvili, G. Baghaturia

Sector of Informatics

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#	Planned and Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	Investigation and Processing of new information technologies Informatics	H. Meladze	H. Meladze, M. Pkhovlishvili, G. Tsertsvadze, G. Silagadze, M. Papiashvili, S. Tigishvili
2	Work	Work Supervisor	Work Performers
	Symmetric encryption cryptographic systems Mathematics, Cryptography	Z. Kipshidze	Z. Kipshidze, G. Ghlonti
3	Work	Work Supervisor	Work Performers
	Cyber-framing project supporting analytical information resources management. Informatics	G. Ghlonti	Z. Kipshidze, G. Ghlonti, S. Tigishvili