Curriculum Vitae

Full name: Zakaria Giunashvili

Address, phone, e-mail

Email: zakaria.giunashvili@iliauni.edu.ge

Education

1. Nishina Memorial Foundation's Postdoctoral Fellowship at Yokohama City University. Yokohama, Japan. Research Field: Quantum Computing and information Processing, 2002-2003

2. Ph.D. student, Tbilisi State University, 1987-1990, PhD in Physics and Mathematics

3. Graduate student, Department of Mechanics and Mathematics, Tbilisi State University, 1981-1986

Work experience

1. Head of Research and Psychometrics Group at National Assessment & Examinations Center (NAEC), since 2019

2. Associate Professor at Ilia State University, Faculty of Business, Technology and Education, since 2018

3. Invited Lecturer at Free University of Tbilisi, 2012 - 2018

4. Mathematics Consultant at National Center for Teacher Professional Development, 2011 - 2018

5. Head of Mathematics and ICT subject group at National Curriculum and Assessment Centre (Ministry of Education and Science of Georgia), 2004 - 2011.

6. Senior researcher at A. Razmadze Mathematical Institute, 1997 - 2017

7. Educational Software Expert at Deer Leap Foundation, 2006 - 2008

8. Associate professor at Department of Applied Mathematics of Georgian Technical University, 1991 - 2007

9. Invited Professor at International Black Sea University, 1997 – 2007

Courses, Trainings and Conferences

1. Training at American Institutes for Research (AIR): Principles for Education Curriculum Development, 2011, USA

2. International Visitor Leadership Program: ICT in Classroom, 2011, USA

3. Microsoft Slovakia: CEE Peer Coaching Workshop, 2010, Slovakia

4. Trainings at CITO Internationaal: Assessment Principles, 2008, 2009, Netherlands

5. Topology and Physics, Seminar at Kinki University (Osaka, Japan), March 2003

6. Geometric Methods in Physics, Seminar at Waseda University (Tokyo, Japan), November 2002

7. Summer School on Mathematical Control Theory. Abdus Salam International Centre for Theoretical Physics. September 2001, Trieste, Italy

8. Warwick Symposium on Symplectic Geometry. University of Warwick, Great Britain. July 1998

9. International Meeting, Mathematical Methods in Modern Theoretical Physics ISPM—98. September 1998, Tbilisi, Georgia

10. International Workshop on Selected Topics of Theoretical and Modern Mathematical Physics SIMI96. September 1996, Tbilisi, Georgia

11. International Workshop on Selected Topics of Theoretical and Modern Mathematical Physics. September 1999, Tbilisi, Georgia.

Projects

1. UNDP Georgia: Digital Skills for Rural Communities and Businesses (Mentor), 2021

2. Millenium Challenge Corporation Project: Training Educators for Excellence (Expert of Mathematics), 2016-2018

3. Georgian National Science Foundation: Various Aspects of Base State Problem, 2005-2007

4. INTAS Low-dimensional strongly correlated electron and spin systems, 1998-2001.

List of publications

1. Geometric methods for construction of quantum gates. Journal of Mathematical Sciences. Journal of Mathematical Sciences, Vol. 153. Number 2, August 2008. Pages 120-158.

2. Methods of geometric control theory for quantum computations. Journal of Mathematical Sciences, Vol. 141. Number 2, February 2007. Pages 1113-1133.

3. Hamiltonian Systems on Complex Grassmann Manifolds. Holonomy and Schrödinger Equation. Journal of Mathematical Sciences, Vol. 137 (2006), No. 5, 5117-5136.

4. Geometric control methods for quantum computations, Modern Mathematics and its Applications Vol. 27 (2005).

5. Noncommutative geometry of Poisson structures, Modern Mathematics and its Applications Vol. 27 (2005).

6. Hamiltonian systems on the complex Grassmann manifold. Holonomy and Schredinger equation, Modern Mathematics and its Applications Vol. 22 (2004).

7. Geometric control methods for quantum computations. Proceedings of the Institute of Cybernetics. Vol. 3, N 1-2, 2004.

8. Noncommutative symplectic foliation, Bott connection and phase space reduction. Georgian Math. J. 11 (2004), No. 2.

9. Noncommutative geometry of Poisson structures. New Developments In Mathematical Physics Research – 2004 ISBN: 1-59033-922-3.

10. Noncommutative geometry of phase space. Journal of Mathematical Sciences, Vol. 119, No. 4, 2004.

11. Several cohomology algebras associated with Poisson structure. Geogian Mathematical Journal 5 (1998), No. 6, 513-520.

12. Phase space reduction from the point of view of noncommutative geometry. Proceedings of the International Meeting, Mathematical Methods in Modern Theoretical Physics ISPM--98 (1998), 217-220.

13. Cohomology algebra of noncommutative Poisson structures. Proceedings of the Second International Workshop on Selected Topics of Theoretical and Modern Mathematical Physics SIMI96 (1996), 309-312.

14. David Malazonia, Sofiko Lobzhanidze, Shorena Maglakelidze, Nino Chiabrishvili & Zakaria Giunashvili (2021) Intercultural competencies of students vs. their civic activities (Case of Georgia), Cogent Education, 8:1, DOI:10.1080/2331186X.2021.1918852

15. David Malazonia, Sofiko Lobzhanidze, Shorena Maglakelidze, Nino Chiabrishvili, Zakaria Giunashvili1 and Natia Natsvlishvili (2023) The role of colaborative learning in the education for democratic citizenship (case of Georgia), Cogent Education (2023), 10: 2167299, https://doi.org/10.1080/2331186X.2023.2167299

ICT Skills

Knowledge of and work experience with various programming languages, database systems and statistical packages (C, C++, C#, PHP, Java, JavaScript, MySQL, T-SQL, R, SPSS, SAS).

Foreign languages

English, Russian