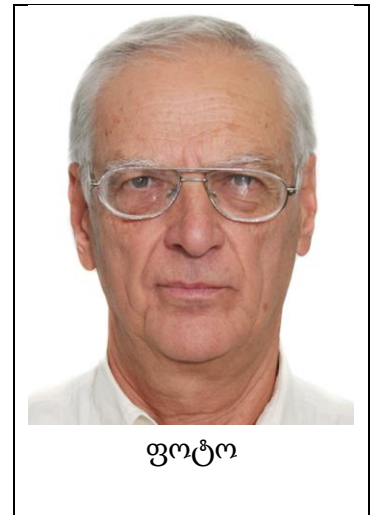




Georgian National Academy of Sciences



Personal Data (CV)

Surname	Chelidze	Name	Tamaz
Address (work, home)	Work: 1, Alexidze str. 0160 Home: 5, Mitskevich str. App. 6	Date and place of birth	24 December 1934, Kutaisi
Citizenship	Georgia	Telephones	230 62 46; 577 79 07b 45
E-mail	Tamaz.chelidze@gmail.com		

3. Education

Education	Institution	Time of study
Secondary	Kutaisi #9 high school	1943–1952
Higher	M.Lomonosov Moscow State University	1952–1957
Postgraduate ship, work for doctor's thesis		

4. Knowledge of Languages

Foreign languages	Level of mastery (free, medium, with help of dictionary)
English	Free
Russian	Free
French	With help of dictionary

5. Scientific or Academic Degree and Rank

	თემის დასახელება Powered by name	მინიჭების თარიღი
Candidates Dissertation	On frequency dependence of electrical characteristics of rocks	1964
Doctoral Dissertation	Dr. of Science in Chemistry – Surface processes in electrical spectroscopy of heterogeneous media Dr. of Science in Physic and Math. – Percolation models in mechanics of geomaterials	1975 1985
Academician Doctor		
Professor	Geophysics	1989

Corresponding Member of the Academy	Geophysics	1987
Member of the Academy	Geophysics	2013

6. Work Experience

Data	Institution	Position
1978– 1992	M.Nodia Institute of Geophysics	Vice-director
1992–2006	M.Nodia Institute of Geophysics	Director
2006–to day	M.Nodia Institute of Geophysics	Chairman of the Scientific Council
1997–2006	Tbilisi State University, chair of geophysical Prospecting	Chair
1996–to day	European Centre “Geodynamical Hazards of High Dams”	Director

6.1 Teaching Activity

Data	Institution	Position
1990-2006	Tbilisi State University	Lecturer, Chair

6.2. Work Abroad

Form of work	Data	Place and Institution
Delivering a lecture course at a foreign higher educational institution		
Long-term mission to research institutions	1987	Pasteur University of Strasbourg, France
	1992	Pasteur University of Strasbourg, France
	1994	University of Rennes, France
	1995	Colorado University at Boulder, USA
	1995- 1997	University of Rennes, France
	1999	Ecole Normale Superieure
	2002	Etwesh Institute of Geophysics (Hungary)
	2004	Institute of Geophysics (Poland)
Other		

7. Sphere of Scientific Interests

experimental and theoretical research in: physics of heterogeneous media, including rocks, biological, granular and colloidal objects;
environmental and prospecting geophysics, archaeogeophysics
percolation, fractal and nonlinear models of fracture, nonlinear dynamics in geophysics
physics of seismic source, earthquake prediction
seismohydraulics of underground water;
Geothermy
seismic hazard and seismic risk assessment, multi-hazards and multi-risks
friction and stick-slip

8. Publications (Total number, Point out the Citation Index (*number*))

8.1 Monographs

Years	
1977	Электрическая спектроскопия гетерогенных систем. Киев: «Наукова думка», 231 с. Т.Л. Челидзе, Л.И. Дервянко, О.Д. Куриленко.
1987	Методы теории протекания в механике геоматериалов. М.: Наука, 1987. 136 с. Т.Л. Челидзе

8.2 Principal Papers (not more than 50)

Years	
1982	Percolation and fracture // Physics of the Earth and Planetary Interiors. – 1982. – Vol. 28. – PP93 – 101. T. Chelidze,
1984	Anomalously high tensosensitivity of the electrical conductivity of inhomogeneous media // Sov. Phys. JETP 60(2). August 1984. – PP.364_365, T. Chelidze,
1984	On the physical interpretation of a transitional amplitude in percolation theory // J. Physics, A: Math. Gen. – 1984. – Vol. 17. – PP. L 791 – L 793. T. Chelidze, Yu. M. Kolesnikov.
1985	The anisotropic correlation in percolation theory // J. Physics A.: Math. Gen. – 1985. – Vol. 18. – PP. L273-L275. T. Chelidze, Yu. M. Kolesnikov
1986	Percolation Theory as a Tool for Imitation of Fracture Process in Rocks // Pageoph. _ 1986. _ Vol.124. _ № 4_5. – PP. 731 – 7486. T. Chelidze,
1988	On the elastic properties of depleted refilled solids near percolation // J. Physics C: Solid State Phys. _ 1988. _ Vol. 21. – PP. L 1007 – L 1010. T. Chelidze, T.Reusche, M.Darot, Y.Gueguen.
1990	Experimental Investigation of the Elastic Modulus of a Fractal System – A Model of Fractured Rocks // Pageoph. 1990. Vol. 134. № 1. PP. 31 – 43. T. Chelidze, H. Spetzler, I.C. Getting, Z.A. Avaliani.
1991	The maps of expected earthquakes based on a combination of parameters // Tectonophysics. Vol. 193. – PP. 225 – 265. T. Chelidze, G.A.Sobolev, A. D. Zavjalov, L.B.Slavina, I.E. Nikoladze
1993	A three – dimensional stationary model of the thermal and thermoelastic fields of the Caucasus // Tectonophysics. _ 1993. _ Vol. 227. _ PP. 191 _ 203. T. Chelidze, M.A.Alexidze, G.E.Gugunava, J.K.Kiria.
1993	An Experimental Study of Triggered Stick-slip // Pageoph. – 1993. _ Vol. 140. _ №1. – PP.79-94. T. Chelidze, G.Sobolev, H.Spezler, A.Koltsov.
1993	Fractal Damage mechanics of Geomaterials // Terra Nova. _ _ Vol. 5. – PP. 421 – 437. T. Chelidze,
1998	From classic to fractal mechanics of Disordered Media: Self – Consistency versus Self – Similarity // Probamat – 21 st Century: Probabilities and Materials. Kluwer Academic Publishers. Netherlands. – 1998 _ PP.197 – 231. T. Chelidze, Y. Gueguen, M. Le Ravalec.
1998	Pressure – induced percolation transitions in composites. J. Phys. D: Applied Phys. 1998. v.31. _ PP. 2877_2885. T. Chelidze, Y.Gueguen.
1999	Electrical spectroscopy of porous rocks: a review – II. Experimental results and interpretation // Geophys. J. Int. – 1999. _ Vol. 137. – PP.16 – 34. T. Chelidze, Y. Gueguen, C.Ruffet.
1999	Electrical spectroscopy of porous rocks: a review – I. Theoretical models // Geophys. J. Int. – 1999. – Vol. 137. – PP. 1 – 15 T. Chelidze, Y. Gueguen.
2000	Earthquake Prediction: Pro and Contra.. Earthquake Hazard and Seismic Risk (Boston) London. . Kluwer AP, 2000. T. Chelidze
2000	Nonlinear analysis of magnitude and interevent time interval sequences for earthquakes of the Caucasian region. Nonlinear Processes in Geophysics. – 2000. _ Vol. 7. – PP. 9 – 19. T. Matcharashvili, T. Chelidze, Z. Javakhishvili.
2000	Permanent water level drop associated with Spitak Earthquake : observations at Lisi borehole (Republic of Georgia) and modelling. P. Gavrilenko, G. Melikadze, T. Chelidze, Geophys. J. Int. 2000, 143, 83-98.
2002	Detecting differences in temporal distribution of small earthquakes before and after large events Computers and Geosciences. 002. Vol.28. _ PP. 693 – 700. T. Matcharashvili, T. Chelidze, Z. Javakhishvili, E. Ghlonti.
2002	Dielectric spectroscopy of blood. T. Chelidze, Journal of Non-Crystalline Solids. – 2002. _ Vol. 305. – PP. 285 – 294.
2002	Laboratory study of electromagnetic initiation of slip. Annals of Geophysics. 2002. _ Vol. 45. _ № 5. – PP. 589 – 597. T. Chelidze, N. Varamashvili, M. Devidze, Z. Chelidze, V. Chikladze, T. Matcharashvili.
2002	Laboratory study of electromagnetic initiation of slip. Annals of Geophysics. 2002. _ Vol. 45. _ № 5. – PP. 589 – 597. T. Chelidze, N. Varamashvili, M. Devidze, Z. Chelidze, V. Chikladze, T. Matcharashvili.
2003	Electromagnetic and mechanical control of slip: laboratory experiments with slider system // Nonlinear Processes in Geophysics. – 2003. _ V. 20. – PP. 1 – 8. T. Chelidze, O. Lursmanashvili.
2003	Electromagnetic control of earthquake dynamics ? Computers and Geosciences – 2003. _ Vol.29. PP. 587 – 593. T. Matcharashvili, T. Chelidze
2003	Electromagnetic signature of prefracture criticality in heterogeneous media. R.Kapiris, K.Eftaxias, T. Chelidze. Phys. Rev. Lett. 92, #6, 065702- 1- 4, 2004.
2005	Modeling of heavy metal contamination within an irrigated area. Groundwater and Ecosystems. Springer. _ 2005. _ PP. 243 _ 253. G.Melikadze, T. Chelidze, J.Leveinen.
2005	Phase synchronization of slip in laboratory slider system // Nonlinear Processes in Geophysics. – 2005. – Vol. 12. – PP. 163 – 170. T. Chelidze, T.Matcharashvili, J.Gogiashvili, O.Lursmanashvili, M.Devidze.
2005	Electromagnetic Synchronization of Slip // Nonlinear Dynamics. _ 2006. _ Vol.44. #1-4. _ PP. 293 _298. T. Chelidze, T.Matcharashvili, O.Lursmanashvili, J.Gogiashvili, M.Devidze.
2006	Influence of periodic variations in water level on regional seismic activity around a large reservoir: field data and laboratory model // Physics of the Earth and Planetary Interiors. – 2006. – PP. 130 – 142.
2006	Influence of periodic variations in water level on regional seismic activity around a large reservoir: field data and laboratory model // Physics of the Earth and Planetary Interiors. – 2006. – PP. 130 – 142.

2006	Triggering and synchronization of stick slip: waiting times and frequency-energy distribution // Tectonophysics. _ 2006 , 424, 139-155. T.Matcharashvili, T. Chelidze, M.Devidze.
2006	Influence of strong electromagnetic discharges on the dynamics of earthquake time distribution in the Bishkek test area (Central f Geophysics, - 2006 – v.49, pp. 961-975. T. Chelidze, V. de Rubeis, T. Matcharashvili and P. Tosi.
2007	Increase in order in seismic process around large reservoir induced by water level periodic variation. Nonlinear Dynamics. – 2007, 0.1007/s11071-007-9219-0 T. Matcharashvili, T. Chelidze
2007	Complexity of seismic process; measuring and applications – A review. Tectonophysics. V. 431, 49-61. T. Chelidze, T. Matcharashvili. 2007
2008	. Phase synchronization of slips by periodical (tangential and normal) mechanical forcing in the spring-slider model. Acta Geophysica, 56, 357-371 N. Varamashvili, T. Chelidze, O. Lursmanashvili. 2008
2010	. High order synchronization of stick-slip process: experiments on spring-slider system. Nonlinear Dynamics, DOI 10.1007/s11071-009-9536-6 T. Chelidze, O. Lursmanashvili, T. Matcharashvili, N.Varamashvili N. Zhukova, E. Mepharidze
2010	Nonlinear Dynamics as a Tool for Revealing Synchronization and Ordering in Geophysical Time Series: Application to Caucasus Seismicity., in: Synchronization and Triggering: from Fracture to Earthquake Processes. Eds.V.de Rubeis, et al, pp.3-21. T. Matcharashvili and T. Chelidze. 2010.
2010	. Models of Stick-Slip Motion: Impact of Periodic Forcing; in Synchronization and Triggering: from Fracture to Earthquake processes. Eds.V.de Rubeis, Z. Czechowski and R. Teisseyre, pp 23-33 T. Chelidze and N. Varamashvili
2011	Non-extensive statistical analysis of seismicity in the area of Javakhet, Georgia, Computers&Geosciences, doi:10.1016/j.cageo.2010.12.008. T.Matcharashvili, T.Chelidze, Z.Javakhishvili, N. Jorjiashvili and U. FraPaleo
2011	Evidence for changes in the dynamics of Earth crust tilts caused by the large dam construction and reservoir filling at the Inguri dam international test area (Georgia). Nonlinear Dynamics. DOI 10.1007/s11071-010-9930-0. T. Matcharashvili, T. Chelidze, V. Abashidze, N. Zhukova, E. Mepharidze..
2012	Scaling Features of Ambient Noise at Different Levels of Local Seismic Activity: A Case Study for the Oni Seismic Station. Acta Geophysica. vol. 60, no. 3, 2012, pp. 809-832. DOI: 10.2478/s11600-012-0006-z. T. Matcharashvili, T.Chelidze, Z.Javakhishvili, N. Jorjiashvili, N Zhukova,.
2011	Investigation of acoustic emission accompanying stick-slip movement of rock samples at different stiffness of spring-block system, Tribology International, doi:10.1016/j.triboint.2011.02.005. T.Matcharashvili, T.Chelidze, N.Zhukova and E.Mepharidze.
2012	Investigation of the temporal fluctuations of the 1960–2010 seismicity of Caucasus. Nat. Hazards Earth Syst. Sci., 12, 1905–1909,. www.nat-hazards-earth-syst-ci.net/12/1905/2012/doi:10.5194/nhess-12-1905-2012 L. Telesca, T. Matcharashvili, and T. Chelidze.
2013	. Triggering and Synchronization of Seismicity: Laboratory and Field Data - a Review.In: Earthquakes – Triggers, Environmental Impact and Potential Hazards.(Ed. K. Konstantinou), Nova Science Pub. Pp.165- 231. T. Chelidze and T. Matcharashvili.
2013	. Real time monitoring for analysis of dam stability: Potential of nonlinear elasticity and nonlinear dynamics approaches. Front. Struct. Civ. Eng. 2013, Vol. 7, 188-205 DOI: 10.1007/s11709-013-0199-5 . T. Chelidze, T. Matcharashvili, V. Abashidze, M. Kalabegashvili, N Zhukova.
2013	. Discrimination between stochastic dynamics patterns of ambient noises (case study for Oni seismic station). Acta Geophysica, Matcharashvili T., Chelidze T., Javakhishvili Z., Zhukova N., Jorjiashvili N., Shengelia I.
2013	. Analysis of temporal variation of earthquake occurrences in Caucasus from 1960 to 2011. Tectonophysics. DOI information: 10.1016/j.tecto.2013.07.033. T. Matcharashvili, L. Telesca, and T. Chelidze.

8.3 Textbooks, Manuals, and other Methodological Literature and Training applications

Years	
1983	ნარკვევები ქანების ფიზიკაში. დამხმარე სახელმძღვანელო. – თბ.: თბილ. უნ – ტის გამ – ბა, 1983. – 264 გვ.
2000	სირთულე ბუნების სტრუქტურასა და დინამიკაში. ფრაქტალები, ქაოსი და დროითი სერიების არაწრფივი ანალიზი (დამხმარე სახელმძღვანელო), თბ. : „გეოპრინტი“, 2000. – 249 გვ. თანაავტ. თ. მაჭარაშვილი.
2004	გეოფიზიკური მეთოდები ბუნების დაცვაში. ევროპის საბჭოსთან არსებული დიდი კატასტროფების შეთანხმება. საქ. მეცნ. აკად. მნოდის სახ. გეოფიზიკის ინ-ტი. თბილისის ივ. ჯავახიშვილის სახ. სახელმწ. უნივერსიტეტი. დამხმარე სახელმძღვანელო. – 267 გვ.

8.4 Electronic Publications

Years	Title	Address of Source

8.5 Participation in Scientific Symposiums, Conferences... (in the last ten years)

Years	Title	Name of Event
2004	“Deformation of disordered media: from classic self-consistency to fractal self-similarity.” “Synchronization phenomena in stick-slip deformation”	European Geosciences Union General Assembly
2004	Electromagnetic coupling and synchronization during stick-slip.	European Seismological Commission General Assembly
2006	Urban seismic risks in Georgia	NATO Scientific Seminar – Urban risks assessment
2008	Stick-slip under weak EM forcing	European Geosciences Union General Assembly
2008	Seismic triggering from laboratory to earthquakes	European Seismological Commission General Assembly
2009	Structure of Georgia from geological and geophysical data	Black Sea Geology
2009	Seismic catalogue of Georgia	Earthquake Model of Middle East (EMME)
2010	Triggering and synchronization of seismicity	European Geosciences Union General Assembly
2011	Dynamic Triggering and synchronization from laboratory to earthquakes	European Geosciences Union General Assembly
2012	The Deep Structure and 3D Thermo-geodynamics of the Caucasus by Geophysical Data.	European Geosciences Union General Assembly
2013	Earthquake Triggering and Synchronization: Laboratory and Field Data.	Joint Assembly of Geophysical Associations – Knowledge for Future

9. Organizational Work (Holding Congresses and Conferences, Editorial Work)

Years	Name
1990-to day	Member of editorial board “Geophysical Journal” - Ukraine
2010- to day	Member of editorial board “Disaster Advances” – International Journal

10. Inventions (Authors Certificate, Patents)

Years	Name

11. International and Local Scientific grants

Years	Name
2001-2006	Seismic Risk in Large Cities of Caucasus: Tools for Risk Management - NATO
2002- 2006	Caucasian Seismic Information Network ISTC
2002-2004	Strategy development for long term pollution control in regions of extreme environmental risk - INTAS
2002-2004	Prediction of major events in multiscale fracture based on the theory of critical phenomena. - INTAS
1996-2014	Geodynamical Risks of High Dams - Council of Europe
2007-2009	Triggering and synchronization of seismic/acoustic events by weak external forcing - INTAS
2007-2009	Applying Isotope Techniques for the Assessment of Water Resources In Georgia - IAEA
2006-2009	Open network of scientific Centers for mitigation risk of natural hazards in the Southern Caucasus and Central Asia
2007-2009	Assessment of radon-hazard potential, residential exposure, lung cancer and COPD in West Georgia - STCU
2008- 2011	Seismic hazard and risk assessment for Southern Caucasus-Eastern Turkey energy corridor.- NATO
2009-2013	EMME - Earthquake Model of the Middle East Region: - GEM
2010-2013	Complex Research of Earthquake’s Forecasting Possibilities, Seismicity and Climate Change Correlations – FP7
2012-2013	Multi-sensor technologies for EWS of landslides and man-made structures - Council of Europe
2012-2013	Pan-European and nation-wide landslide susceptibility assessment - Council of Europe
2012-2013	Creation of real-time telemetric monitoring/early warning systems of large engineering constructions
2012-2013	Surviving disasters: a pocket guide for citizens - Council of Europe
2012-2013	Basic knowledge on nuclear hazards: lessons of Chernobyl and Fukushima - Council of Europe
2006-2007	საქართველოს ტერიტორიის დედამიწის ქერქის სიღრმული გეოლოგიურ-გეოფიზიკური აგებულების მოდელის დადგენა
2006-2007	სეისმური და აკუსტიკური მოვლენების ტრიგერირება და სინქრონიზაცია გარეშე სუსტი ძალის მოდელით: გამოყენება მიწისძვრების პროგნოზისათვის

2013-2015	დინამიკურად ტრიგირირებული სეისმურობა – დედამიწის ქერქის დამაბული მდგომარეობის შეფასების ახალი მეთოდი:
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12. Scientific-Commercial Activity, Realized Projects, დანერგვა

Years	Name
2009-2012	Realized project - STCU - The first step to creation of real time geotechnical telemetric monitoring system of large dams: the case of the Enguri Dam International Test area

13. Other Activities

	Name	Years
Supervision of Theses and Masters work		
Ph.D	G. Geladze	1973-1978
Ph.D	Z. Avaliani	1979-1984
Ph.D	D. Gogoshidze	1981-1986
Ph.D	Yu. Kolesnikov	1981-1986
Ph.D	T. Chergoleishvili	1983-1988
Ph.D	N.Varamashvili	1985-1990
Ph.D	M. Devidze	1999-2005
Doctor of Sciences	T. Matcharashvili	1998-2003
Doctor of Sciences	M. Janiashvili	2000-2005
Doctor of Sciences	M. Kachakhidze	1997-2006
Participation in International, State and Regional Programs		

14. Awards and Prizes, Honorary Title

Data	Name of Awards, Prizes, Honorary Title
2000	Orden of honor
1998	M. Alexidze award of Georgian Geophysical Society
2009	M. Nodia award of Georgian National Academy of Sciences

15. Family Status

Married
