CURRICULUM VITAE (EU FORMAT)

PERSONAL INFORMATION

Name Address Telephone	Marina Devidze 07 Pekini ave., 0173, Tbilisi, Georgia +995 599 797953; +39 3336222244
E-mail Web-site Nationality	<u>marina.devidze@tsu.ge</u> <u>www.tsu.ge_www.gga.ge_www.hggrc.net</u> Georgian
Date of birth Gender	07 December 1968 F
WORK EXPERIENCE	2013 to present M. Nodia Institute of Geophysics, of Ivane Javakhishvili Tbilisi State University 1 M. Alexidze street, 0193, Tbilisi, Georgia Department of Physics of Atmosphere Senior Researcher
	2015 to present Institute of Geosciences and Earth Resources CNR Pisa Associate Researcher
	 2006 to 2013 M. Nodia Institute of Geophysics, of Ivane Javakhishvili Tbilisi State University 1 M. Alexidze street, 0193, Tbilisi, Georgia Department of Dynamics of Geophysical Fields and Computational Geophysics Researcher
	2001 to 2006 M. Nodia Institute of Geophysics, Georgian Academy of Sciences. Tbilisi, Georgia Department of Experimental Geophysics and Earthquake Precursors Researcher
	1999 to 2002 Ivane Javakhishvili Tbilisi State University Faculty of Geography and Geology The Lecturer
	1997 to 2001 M. Nodia Institute of Geophysics, Georgian Academy of Sciences. Tbilisi, Georgia Department of Experimental Geophysics and Earthquake Precursors Engineer-Geophysicist

	1992 to 1994 Georgian Geological State Department Geophysical Expedition Engineer-Geophysicist
NAME AND ADDRESS OF EMPLOYER	M. Nodia Institute of Geophysics of Ivane Javakhishvili Tbilisi State University 1 M. Alexidze street, 0193, Tbilisi, Georgia Department of Physics of Atmosphere
EDUCATION AND TRAINING	
	22/11/2005 M. Nodia Institute of Geophysics, Georgian Academy of Sciences The Degree of a Candidate of Sciences. Diploma №004966 Title of Doctoral Dissertation: "Triggering and Synchronization of mechanical instabilities during Stick-Slip with superimposed electromagnetic forcing"
	4 -17 October 2004 Asian Seismological Commission (ASC) Yerevan, Armenia "Seismic Networks Data Processing and Exchange, Hazard and Risk Assessment"
	1994-1997 Ivane Javakhishvili Tbilisi State University Department of Geophysics Post-Graduate school
	1989-1994 Ivane Javakhishvili Tbilisi State University Faculty of Geography and Geology Degree in Applied Geophysics
PERSONAL SKILLS AND COMPETENCES	
MOTHER TONGUE	GEORGIAN
OTHER LANGUAGES	
 Reading skills 	Good Good
Writing skillsVerbal skills	Basic Basic Good Good
SOCIAL SKILLS AND COMPETENCES	Working in groups. Managing Filed trips, workshops, making presentations at international workshops and conferences, making contacts with foreign colleagues, Improving the skills permanently;

ORGANISATIONAL SKILLS AND COMPETENCES

Coordination and management of national and international research projects:

- 2014 –2017: CNR SRNSF (№ 04/07): Geo-archaeology in Georgia and Geomagnetic Secular Variation Curve (SVC) development for Caucasus area. - Project leader
- 2014 –2017: SRNSF (FR/258/9-160/13): Research by external factors landslides triggering using laboratory and mathematical modelling, field research.
- 2014 2017: SRNSF (FR/328/9-156/13): "Spatial and Temporal Variability of Geodynamical Field and Its Influence on the Deep Aquifers and Geomagnetic Field" - **Project leader**
- 2012–2013 CNR SRNSF (№ 09/02): "The contribution of Georgia to a Geomagnetic Secular Variation Curve (SVC) for Caucasus and Circum-Mediterranean area" - Project leader
- 2006-2008: Georgian National Science Foundation project: "triggering and synchronization of seismic and acoustic events by weak external forcing: implications for earthquake prediction"
- 2006-2008: INTAS project (INTAS 78891): "triggering and synchronization of seismic/acoustic events by weak external forcing as a sign of approaching the critical point"
- 2002-2004: Young NIS Scientist Fellowships Programme 2002: "induced seismicity and earthquake hazard mitigation by electromagnetic impact of MHD generator"
- 2000-2002: INTAS project (INTAS 64): "Effects of MHD-Generated Electromagnetic Discharges on the Seismic Regime (EM-QUAKE)"

Research sectors

Archaeometric study;

• Archaeomagnetic dating of fiery structures in the framework of the reconstruction of the Geomagnetic Secular Variation Curve (SVC) for the peri-Mediterranean region in the last 10-15.000 years.

The comprehensive investigation of the landslide process dynamics. Specifically, in the laboratory experiments and numerical simulations, the effects of weak external impacts or forcings (i.e., humidity, seismic shaking, temperature, human activity) on the probability of occurrence of landslides.

- To conduct experimental and numerical model analyses to ascertain if and when small controllable perturbation of the system, which is close to the critical state, affects the probability of strong event triggering by studying acoustic and strain precursors for dynamic events (slips) in laboratory conditions;
- To study the effects of medium watering and properties of the gouge on triggering probability;

TECHNICAL SKILLS AND COMPETENCES

	 To study the dynamics of contact point's reduction between fixed and sliding plates, leading to slip initiation by monitoring inter-surface conductivity and establish connection between inter-surface conductivity measurements and the model of contact percolation.
	• To investigate statistics of induced landslides in Georgia for various environmental conditions (rainfall, temperature, seismicity).
	Study of hydrodynamic characteristics and tenso-sensitivity of boreholes (conductivity, filtration coefficient, tenso-sensitivity, etc) for selection of optimal network of observation boreholes
	 To study of hydrodynamic characteristics of boreholes (filtration coefficient, hydrodynamic conductivity and others) and features of water-bearing layers will be conducted by using "slug-test" method Tensosensitivity of each borehole will be assessed based on it reaction
	 to tidal variations. Modernization of existing regime hydrodynamic and geomagnetic network, installation of modern devices equipped with operative information collection systems on regime stations and start of monitoring
	MS Windows MS Office, Adobe Distaston and some professional Coophysical
AND COMPETENCES	programs working with different geophysical equipment
OTHER SKILLS	Member of Coordian Coothermal appealation
AND COMPETENCES	Member of Georgian Geophysical Association.
	Awards:
	2002 Young researcher's award of the Georgian Geophysical Society.
Attachment	Publication list
	Conferences list
	Signature M. Devidze

- Claudia Principe, Avtandil Gogichaishvili, Simone Arrighi, Marina Devidze, Sonia La Felice, Annarita Paolillo, Daniele Giordano, Juan Morales – "Archaeomagnetic dating of Copper Age furnaces at Croce di Papa village and relations on Vesuvius and Phlegraean Fields volcanic activity" – (2017), Journal of Volcanology and Geothermal Research, <u>https://doi.org/10.1016/j.jvolgeores.2017.11.002</u>
- Nodar Varamashvili, Tamaz Chelidze, Marina Devidze, Victor Chikhladze, Zurab Chelidze

 "Laboratory Research of Landslide Activation Model" (2017), Bulletin of the Georgian National Academy of Sciences, volume 11, no. 2, p 55-59
- Ron Shaar, Lisa Tauxe, Avto Goguitchaichvili, Marina Devidze, Vakhtang Licheli "Further evidence of the Levantine Iron Age geomagnetic anomaly from Georgian pottery" – (2017), Geophysical Research Letters, volume 44, p 2229-2236
- N. Varamashvili, T, Chelidze, M. Devidze, V. Chikhladze "Laboratory and mathematical modeling of landslides triggered by external factors. Field research" – (2017), Articles of Mikheil Nodia Institute of Geophysics Transactions. Vol. LXVIII
- George Melikadze, Tamar Jimsheladze, Genadi Kobzev, Alexandre Tchankvetadze, Marina Devidze – "Hydrodynamic and geomagnetic anomalies related with preparation of earthquakes in Caucasus" – (2017) JOURNAL OF THE GEORGIAN GEOPHYSICAL SOCIETY, volume 19, p 84-103
- E. M. Sánchez-Moreno, M. Calvo-Rathert, A. Gogichaishvili, G. T. Vashakidze, V. A. Lebedev, A. Carrancho, J. Villalaín, A. Caccavari, M. Devidze, C. Principe "Registro de transiciones de polaridad en coladas Volcánicas pliocenas de la meseta de Djavakheti (Cáucaso menor): el caso de la secuencia se Apnia" (2016) Latinmag Letters, Volume 5, Special Issue 2016, id number, 1-n
- Tamar Jimsheladze, George Melikadze, Genadi Kobzev, Aleksandre Tshankvetadze, Marina Devidze, Nino Kapanadze- "Methodology of detection of distribution in geodynamic field of the Earth during preparation the earthquakes" – (2015) JOURNAL OF THE GEORGIAN GEOPHYSICAL SOCIETY, V 18, p 75-83
- Nodar Varamashvili, Tamaz Chelidze, Marina Devidze, Zurab Chelidze, Victor Chikhladze, Alexander Surmava, Khatuna Chargazia, Dimitri Tefnadze – "Massmovement and seismic processes study using Burridge-Knopoff laboratory and mathematical models" – (2015) JOURNAL OF THE GEORGIAN GEOPHYSICAL SOCIETY, V 18, pp 19-25
- C. Principe, S. Arrighi, M. Devidze, D. Giordano, M. Le Goff, A. Goguitchaichvili, S. la Felice – "Archaeomagnetic investigation of late eneolithic furnaces under the ancient Bronze Age Village of Croce di Papa, Nola (Italy)" – (2013) Latinmag Letters, Volume 3, Special Issue
- Ron Shaar, Lisa Tauxe, Avto Gogichaishvili, Manuel Calvo Rathert, Marina Devidze, Vakhtang Licheli – "Absolute Geomagnetic Field Intensity in Georgia During the Past 6 Millennia" - (2013) Latinmag Letters, Volume 3, Special Issue
- T. Chelidze, O. Lursmanashvili, T. Matcharashvili, M. Devidze "Triggering and synchronization of stick slip: waiting times and frequency-energy distribution" – (2006) Tectonophysics, Volume 424, Issues 3-4, 2. p. 139-155
- T. Chelidze, T. Matcharashvili, O. Lursmanashvili, J. Gogiashvili, M. Devidze "Electromagnetic Synchronization of Slip" – (2006) Nonlinear Dynamics, V 44, N 1-4, p. 293-298
- T. Chelidze, T. Matcharashvili, J. Gogiashvili, O. Lursmanashvili, M. Devidze, "Phase Synchronization of Slip in Laboratory Slider System" – (2005) Nonlinear Processes in Geophysics, 12: p.163-170

- T.Chelidze, A. Gvelesiani, N.Varamashvili, M. Devidze, V. Chikhradze, Z. Tchelidze, M. Elashvili "Electromagnetic initiation of slip." (2004) Acta geophysica Polonica vol.52, N 1 p. 49-62
- M. Devidze, T. Chelidze, O. Lursmanashvili "The frequency content of acoustic bursts, associated with stick-slip" – (2002) Journal of Georgian Geophysical Society, vol. 7
- T. Chelidze, N. Varamashvili, M. Devidze, Z. T. Chelidze, V. Chikhladze, T. Matcharashvili "Laboratory Study of Electromagnetic Initiation of Slip" (2002) Annals of Geophysics, vol.45, N. 5

Attachment 2 - Conferences, Seminars:

- N. Varamashvili, M. Devidze, T. Chelidze "Laboratory models of seismic and mass movement process triggering" – (2015) The 26th General Assembly of the International Union of Geodesy and Geophysics, Prague, Czech Republic
- E. M. Sánchez, M. Calvo-Rathert, A. Gogichaishvili, G. Vashakidze, A. Carrancho, J. J. Villalaín, M. Devidze, C. Principe "A paleomagnetic and rock-magnetic study of Pliocene and Pleistocene lava flow sequences from the Lesser Caucasus (Southern Georgia)" (2014) 14th Castle Meeting New Trends on Paleo, Rock and Environmental Magnetism, Évora, Portugal
- Principe C., Giordano D., Bisson M., Gianardi R., Paolillo A., Devidze M., Le Goff M., La Felice S.- "Lava flows emission at Vesuvius: multidisciplinary approach to the risk scenario"- (2013) FIST GEOITALIA 2013 – IX Forum di Scienze della Terra
- C. Principe, D. Giordano, M. Bisson, R. Gianardi, A. Paolillo, M. Devidze, M. Le Goff, S. La Felice "Il nuovo scenario di rischio associato all'apertura di fratture eruttive al Vesuvio" (2013) Congresso AIQUA 2013 L'Ambiente Marino Costiero del Mediterraneo oggi e nel recente passato geologico conoscere per comprendere, Napoli 19-21 giugno
- C. Principe, S. Arrichi, M. Devidze, D. Giordano, M. Le Goff, A. Goguitchaichvili, S. La Felice - "La datazione archeomagnetica delle Fornaci di età Eneolitica rinvenute a Croce di Papa, Nola (NA) ed implicazioni paleo ambientali" - (2013) Congresso AlQUA 2013 -L'Ambiente Marino Costiero del Mediterraneo oggi e nel recente passato geologico conoscere per comprendere, Napoli 19-21 giugno
- C. Principe, F. Carrera, M. Devidze, M. Le Goff, D. Giordano "Archeomagnetic age of two fiery structure inside the ex Laboratori Gentili metallurgic area in Pisa" - Opening the Past 2013, Archaeology of the Future, Pisa 13-15 giugno
- R. Shaar, L. Tauxe, A. Goguitchaichvili, M. Calvo Rathert, M. Devidze, V. Licheli "Geomagnetic field intensity in Georgia during the past 6 millennia: evidence for remarkable temporal variability" – (2012) UNIÓN GEOFÍSICA MEXICANA, A. C, Puerto Vallarta, Jalisco, México
- M. Devidze, T. Chelidze, N. Varamashvili "The mechanism of excitation of solitary waves by friction and their influence on the stick-slip process" – (2012) AGU 2012 Fall Meeting, San Francisco, California
- M. Devidze, T. Chelidze, N. Varamashvili "Triggering the mechanical (slip) instability in laboratory experimental model" – (2008) The AGU 2008 Joint Assembly, Fort Lauderdale, Florida, USA (poster)
- M. Devidze, T. Chelidze, N. Tsereteli, V. Abashidze, N. Varamashvili, T. Matcharashvili - "Reservoir Induced seismicity in Georgia" – (2007) IUGG 2007 Perugia, Italy (oral presentation)

- M. Devidze, T. Chelidze, T. Matcharashvili, N. Varamashvili, V. Chikhladze "Triggering and Synchronization of mechanical instabilities during Stick-Slip with superimposed electromagnetic forcing" – (2006) IAGA WG 1.2, 18th International Workshop on Electromagnetic Induction in the Earth, El Vendrell – 2006, Barselona, Spain (oral presentation)
- T Chelidze, T Matcharashvili, O Lursmanashvili, M Devidze, T Khutsishvili "Phase synchronization and recurrence quantitative analysis of stick slip acoustic data sets" – (2006) Geophysical Research Abstracts, V.8, 03919, European Geosciences Union 2006
- M. Devidze, T. Chelidze, O. Lursmanashvili, T. Matcharashvili "Transitions in Stick-Slip synchronization by periodic Electromagnetic impac". – (2005) IAGA Scientific Assembly, Toulouse, France, (oral presentation)
- G Bendukidze, G Buntebarth, J Carneiro, T Chelidze, A Correia, M Devidze, G Melikadze

 "Determination of properties of the hydrothermal reservoir at Tbilisi/Georgia" (2003)
 EGS-AGU-EUG Joint Assembly
- A Aliev, G Bendukidze, PF Biagi, T Chelidze, M Devidze, B Garalov, G Melikadze, G Vartanian – "Hydrogeodeformation field in the Caucasus related to the preparation of Tbilisi earthquakes (M> 4.5) "– (2003) EGS-AGU-EUG Joint Assembly
- M. Devidze, T. Chelidze, V. De Rubeis. "Induced Seismicity and Earthquake Hazard Mitigation by Electromagnetic Impact of MHD Generator" – (2003) AGU Fall Meeting, San Francisco, California, USA (poster)