

# Giorgi Dalakishvili

## Personal information

## Contact Details

Email address:

Full name: Giorgi Dalakishvili

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Gender: Male

Country: საქართველო (Georgia)

Citizenship: საქართველო  
(Georgia)

City: Tbilisi

Address: Kakutsa Cholokashvili ave. 3/5

## Languages

Language	Writing	Reading	Speaking
Russian	C1	C1	C1
German	A1	A1	A1
English	C1	C1	C1
ქართული (Georgian)	C2	C2	C2

## Education

### Academic degree

Academic Degree: Doctoral/PhD, Ed.D or other equivalent

Year obtained: 27.11.2010

### Education

Academic Degree	Name of the Institution	Country	Major discipline	Start year	End year
Doctoral/PhD, Ed.D or other equivalent	Katholieke University Leuven, Ruhr University Bochum	Belgium		2007	2010
Master/MS, MA, MR, MBA, m.Ed or other equivalent	Ivane Javakhishvili Tbilisi State University	საქართველო (Georgia)	Physics	2003	2005
Bachelor/BS, BA, BE or other equivalent	Ivane Javakhishvili Tbilisi State University	საქართველო (Georgia)	Physics	1999	2003

## Projects

### Ongoing projects

Project title	Position	Project head	Start Date	Donor
Theory of formation and localization of sporadic E(Es) layer caused by neutral wind in case of presence of electric field	Principal investigator	Giorgi Dalakishvili	01.04.2022	SHOTA RUSTAVELI NATIONAL SCIENCE FOUNDATION OF GEORGIA

### Completed projects

Project title	Position	Project head	Start Date	End Date	Donor
Testing theoretical models of magnetohydrodynamic turbulence by means of the solar wind observations	Researcher	Grigol Gogoberidze	25.04.2015	25.04.2018	Shota Rustaveli National Scientific Foundation of Georgia
Three-dimensional model of formation and behavior of ionospheric sporadic E under the influence of atmospheric waves evolving in the horizontal shear flow	Principle investigator	Giorgi Dalakishvili	25.04.2013	25.04.2019	Shota Rustaveli National Scientific Foundation of Georgia
Electrodynamics of relativistic plasma flows emanating from rotating compact astrophysical objects: from pulsars to active galactic nuclei	Researcher	George Machabeli	25.04.2006	25.04.2009	Georgian National Scientific Foundation

## Scientific Fields (2018-2020)

### Main Field

Field: 1. Natural sciences

Sub-Field: 1.3 Physical sciences

Subject area: 1.3.5 Fluids and plasma physics (including surface physics)

### Additional Field (1)

Field: 1. Natural sciences

Sub-Field: 1.5 Earth and related environmental sciences

Subject area: 1.5.9 Meteorology and atmospheric sciences

### Additional Field (2)

Field: 1. Natural sciences

Sub-Field: 1.3 Physical sciences

Subject area: 1.3.8 Astronomy (including astrophysics, space science)

## Scientific Fields (2021-2024)

### Main Field

Field: 1. Physical Sciences and Engineering

Sub-Field: 1.10 Earth System Science

Subject area: 1.10.16 Ozone, upper atmosphere, ionosphere

### Additional Field (1)

Field: 1. Physical Sciences and Engineering

Sub-Field: 1.10 Earth System Science

Subject area: 1.10.2 Meteorology, atmospheric physics and dynamics

## Employment History

### Current place(s) of employment

Workplace	Name of the work department	Position	Main responsibilities	Start Date
Ilia State University	School of Natural Sciences and Medicine	Associated professor	Teaching and research	06.05.2019

## Scientific Productivity

### Article / Monograph / Manual

Type	Authors	Publication title	Source title	Year
Article	Didebulidze, G.G.; Dalakishvili, G.; Todua, M.; Toriashvili,	The Role of Neutral Wind Velocity and Its Vertical Component on Predictability of Formation and Localization of Sporadic E (Es)	Atmosphere	2023
Chapter in book	Goderdzi G. Didebulidze, Giorgi Dalakishvili, Maya Todua	Formation of Multilayered Sporadic E under an Influence of Atmospheric Gravity Waves (AGWs)	Chapter: "Formation of Multilayered Sporadic E under an Influence of Atmospheric Gravity Waves (AGWs)". Earth and Its Atmosphere, Editor: Liu Chenming, ISBN: 978-81-945175-8-0, VIDE LEAF, p.35	2020
Article	Giorgi Dalakishvili, Goderdzi G. Didebulidze, Maya Todua	Formation of sporadic E (Es) layer by homogeneous and inhomogeneous horizontal winds	Journal of Atmospheric and Solar-Terrestrial Physics, Volume 209, 2020,105403	2020
Article	Goderdzi G. Didebulidze, Giorgi Dalakishvili, Maya Todua	Formation of Multilayered Sporadic E under an Influence of Atmospheric Gravity Waves (AGWs)	Atmosphere 2020, 11, 653	2020
Article	Giorgi Dalakishvili, Goderdzi G. Didebulidze, Maya Todua	Formation of sporadic E (Es) layer by homogeneous horizontal wind,	Journal of the Georgian Geophysical Society, Issue (B), Physics of Atmosphere, Ocean, and Space Plasma, v. 23b, No 3.	2020
Article	Goderdzi G. Didebulidze, Giorgi Dalakishvili, Levan Lomidze, Giorgi Matiashvili,	Formation and behavior of Es layers under influence of AGWs evolving in the horizontal shear flow	JASTP, 136,163,	2015
Article	Goderdzi G. Didebulidze, Giorgi Dalakishvili, Levan Lomidze, Giorgi Matiashvili	Formation of ionospheric sporadic E layers by atmospheric gravity waves	Journal of Georgian Geophysical Society	2014
Article	Dalakishvili, G., Kleimann, J., Fichtner, H., Poedts, S.,	Magnetic clouds in the solar wind: a numerical assessment of analytical models	Astron. Astrophys. , 536, A100	2011
Article	Dalakishvili, G., Rogava, A., Lapenta, G., Poedts, S	Investigation of dynamics of self-similarly evolving magnetic clouds	Astron. Astrophys. , 526, A22	2011
Monograph	Giorgi Dalakishvili	Study of Dynamical Plasma Processes in Stellar Winds	PhD thesis, © Katholieke Universiteit Leuven – Faculty of Science Celestijnenlaan 200 B, B-3001 Leuven (Belgium), Wettelijk depot D/2010/10.705/64, ISBN 978-90-8649-372-2	2010
Article	Dalakishvili, G., Poedts, S., Fichtner, H., Romashets, E	Characteristics of magnetized plasma flow around stationary and expanding magnetic clouds	Astron. Astrophys., 507, 611	2009
Article	Osmanov Z., Dalakishvili G. and Machabeli G.,	On the reorganization of a magnetosphere pulsars nearby the light cylinder surface	Mon. Not. R. Astron. Soc. 383, 1007	2008
Article	Dalakishvili G.T., Rogava A.D., Berezhiani V.I.	Role of radiation reaction forces in the dynamics of centrifugally accelerated particles.	Phys.Rev. D 76, 45003	2007
Article	Rogava, A., Dalakishvili, G., Osmanov, Z.	Centrifugally driven relativistic dynamics on curved trajectories	Gen.Rel.Grav. 35, 1133	2003

### Participation in scientific events

Scientific event name	Title of the presentation	Event venue	Year
IES 2023	The importance of electric field in ions convergence and formation of sporadic E (Es) at the equatorial region	USA	2023
ICTP-SCOSTEP-ISWI School and Workshop on the Predictability of the Solar-Terrestrial Coupling - PRESTO	The importance of electric field in ions convergence and formation of sporadic E (Es) at the equatorial and mid-latitude regions	Italy	2023
44th COSPAR Scientific Assembly	INFLUENCE OF IONS HORIZONTAL TRANSPORT CAUSED BY AGWS ON FORMATION AND CHARACTERISTICS OF SPORADIC E	Greece	2022
43rd COSPAR Scientific Assembly	Formation of multilayered sporadic E under an influence of atmospheric gravity waves (AGWs)	Australia	2021
43rd COSPAR Scientific Assembly	The behavior of the oxygen red 630.0 nm line nightglow intensity under an influence of thermosphere wind and atmospheric gravity waves	Australia	2021
International Conference on Planetary and Atmospheric Physics	The Characteristics of Multilayered Sporadic E Formed under the Influence of Atmospheric Gravity Waves	Italy	2020
AGU Fall Meeting 2020	TIDs characteristic behavior of the oxygen red 630.0 nm line nightglow intensity caused by thermosphere wind and AGWs	USA	2020
International Conference on Atmospheric Sciences, Atmospheric Structure and Analysis	Analytical and Numerical Study of Formation of Sporadic E Layer with Taking into Account Horizontal and Vertical In-homogeneity of the Horizontal Wind	Israel	2020
EGU General Assembly	Horizontal wind velocity direction, value and lower thermosphere structural factors in formation of multilayered sporadic E under an influence of AGWs	Vienna, Austria	2019
14th LPMR Workshop	Formation of Es layers by background homogeneous wind and tidal wind	USA	2019
AGU 2019 Fall Meeting	Formation of Sporadic E (Es) Layer by Horizontal Wind Without Vertical Shear	USA	2019
42nd COSPAR Scientific Assembly	Horizontal wind's factor in formation of sporadic E under influence of atmospheric wave	USA	2018
14th Quadrennial Solar-Terrestrial Physics Symposium	Lower thermosphere factor in formation of sporadic E under influence of horizontal wind and AGWs	Canada	2018
41st COSPAR Scientific Assembly	Formation of Ionospheric Sporadic E by Atmospheric Gravity Waves	Turkey	2016
CEDAR-GEM Joint Workshop	Formation and Behavior of Sporadic E Under influence of Atmospheric Gravity Waves	USA	2016
EGU General Assembly 2016	Tidal wind as a possible link of coupling between atmospheric waves activity and sporadic E formation	Austria	2016
EGU General Assembly 2016	Formation of sporadic E under the influence of AGWs and horizontal background wind	Austria	2016
14th International Ionospheric Effects Symposium IES2015.	Formation and Behavior of Es Layers under Influence of AGWs Evolving in the Horizontal Shear Flow	USA	2015
AGU Fall Meeting	Sporadic Ionospheric Structures Caused by Atmospheric Waves Evolving in the Inhomogeneous Horizontal Wind and their Coupling with the 557.7 nm and 630.0 nm Line Nightglow Intensity Variations	USA	2014
6th Network Detection Mesospheric Changes	The variations of the mid-latitude oxygen green 557.7 nm and red 630.0 nm line nightglow intensities coupled with ionosphere sporadic structures	Germany	2014
CAWSESII	The formation and behavior sporadic E under influence of atmospheric vortical perturbation and AGW	Japan	2013
38th COSPAR Scientific Assembly	Characteristics of magnetised plasma flow around stationary and expanding magnetic clouds	Germany	2010
38th COSPAR Scientific Assembly	Characteristics of magnetised plasma flow around stationary and expanding magnetic clouds	Germany	2010

### Productivity index

#	Citation index	h-index
Google scholar	100.00	5.00