europass

Deniz Ertuncay

Date of birth: 04/05/1990 | **Nationality:** Turkish | **Gender:** Male |

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https://www.units.it/persone/index.php/from/abook/persona/26709 |

https://scholar.google.com/citations?user=OrB7o4IAAAAJ&hl=en |

https://github.com/dertuncay |

https://www.researchgate.net/profile/Deniz_Ertuncay |

https://twitter.com/dertuncay | Skype: dertuncay |

Via Udine, 32, 34135, Trieste, Italy

WORK EXPERIENCE

30/03/2020 – CURRENT – Trieste, Italy

POST-DOC – UNIVERSITY OF TRIESTE

I am working with Prof. Giovanni Costa on the project of “Accelerometric monitoring of the territory and data processing for civil protection purposes” (In Italian: "Monitoraggio accelerometrico del territorio ed elaborazione dati a scopo di protezione civile”). My current focus is to develop an algorithm to separate tectonic earthquakes and mining blasts by using machine learning algorithms. I am also working on ground motion seismology by analyzing near fault earthquakes records in large magnitude earthquakes. Furthermore, I am part of an Interreg project called ARMONIA (http://www.armoniaproject.eu/). My duty on the project is to benchmark various seismometers in terms of their data quality.

02/2019 – 06/2021 – Trieste, Italy

SCIENTIST – ARMONIA PROJECT

I was part of Work Package 4 of ARMONIA project. The main goal was the improvement and the integration of existing network to enhance the effectiveness in a trasnational prospective, in order to obtain the required quality of the data together with the maximum distribution of the instruments in the territory. The deployment of new instrumentation in near field and in sentinel buildings provides to high level of efficiency adding important information in case of emergency.

https://www.armoniaproject.eu/it | Italy

02/2016 – 02/2018 – Istanbul, Turkey

BOARD MEMBER – CHAMBER OF GEOPHYSICAL ENGINEERS OF TURKEY

Istanbul, Turkey

02/2014 – 02/2016 – Istanbul, Turkey

RESERVE BOARD MEMBER – CHAMBER OF GEOPHYSICAL ENGINEERS OF TURKEY

Istanbul, Turkey

09/2012 – 06/2013 – Istanbul, Turkey

GEOPHYSICIST – ILKON ENGINEERING

Non destructive tests on buildings.

Istanbul, Turkey

07/2011 – 07/2011 – Istanbul, Turkey

INTERN – BOGAZICI UNIVERSITY KANDILLI OBSERVATORY AND EARTHQUAKE RESEARCH INSTITUTE

I worked on earthquake monitoring service for a month. I located earthquakes on my shifts. Other than that I helped preparing seismic bulletins. I took practical courses on linux systems and GIS.

Istanbul, Turkey

EDUCATION AND TRAINING

01/11/2016 – 20/03/2020 – Trieste, Italy

PHILOSOPHY OF DOCTORATE – University of Trieste, SeisRaM Working Group

Thesis: Temporal and spatial analysis of near fault stations in terms of impulsive behavior
Supervisor: Prof. Dr. Giovanni Costa
Co-supervisor: Dr. Andrea De Lorenzo
Description: I focused on impulsive signals and their spatial and temporal distributions. I used wavelet analysis and machine learning algorithms to identify. Moreover, I have found the probability of occurrence of impulsive signals by using Multivariate Naive Bayes Method. In order to do that, I have correlated various parameters that are carrying information from the earthquake physics or spatial features of the seismic station.

- I was also part of an European Union project called ARMONIA. In WP4 of ARMONIA project, I tested different seismic instrumentation installed in Foligno, Italy.

EQF level 8

01/2014 – 16/06/2016 – Istanbul, Turkey

MASTER OF SCIENCE – Bogazici University

Thesis: Variation of Source Parameters in Anisotropic Focal Region
Supervisor: Asst. Prof. Dr. Cagri Diner
Description: Investigation of effect of anisotropic focal regions on moment tensor decomposition.

- I was a part of a scientific project sponsored by Scientific and Technological Research Council of Turkey (TÜBİTAK) with a name 'Determination of Finite Fault Parameters with its Residual Stress Tensors'
- I attended Inverse Theory course from PhD. program.

GPA: 3.28/4.00

EQF level 7

03/09/2008 – 21/01/2013 – Istanbul, Turkey

BACHELOR OF ENGINEERING – University of Istanbul

Thesis: Analysis of Earthquake Hazard and Perceptibility Study in Saros Bay, NW Turkey
Supervisor: Prof. Dr. Oguz Ozel

- I was the head of Geophysics Student Club for 1 year.

GPA: 2.86/4.00

EQF level 6

LANGUAGE SKILLS

Mother tongue(s): **TURKISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	B2	B2	B2	B2
ITALIAN	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

MATLABSimulink | LaTeX | Seismic Analysis Code(SAC) | Linux | Python (obspy, keras)

PUBLICATIONS

Near-real time strong motion acquisition at national scale and automatic analysis: a useful tool

2022
Near-real time strong motion acquisition at national scale and automatic analysis: a useful tool (in preparation)

Characterization of earthquake sources in North-East Italy using Deep Neural Networks

2022
Ertuncay, Deniz, Andrea De Lorenzo, and Giovanni Costa. "Characterization of earthquake sources in North-East Italy using Deep Neural Networks ." Frontiers in Earth Science (under review).

Identification of Near-Fault Impulsive Signals and Their Initiation and Termination Positions with Convolutional Neural Networks

https://doi.org/10.3390/geosciences11090388 – 2021
Ertuncay, Deniz, Andrea De Lorenzo, and Giovanni Costa. "Identification of Near-Fault Impulsive Signals and Their Initiation and Termination Positions with Convolutional Neural Networks." Geosciences 11.9 (2021): 388.

Impulsive Signals Produced by Earthquakes in Italy and Their Potential Relation with Site Effects and Structural Damage

https://doi.org/10.3390/geosciences11060261 – 2021
Ertuncay, Deniz, et al. "Impulsive Signals Produced by Earthquakes in Italy and Their Potential Relation with Site Effects and Structural Damage." Geosciences 11.6 (2021): 261.

Determination of near-fault impulsive signals with multivariate naïve Bayes method

https://doi.org/10.1007/s11069-021-04755-0 – 2021
Ertuncay, Deniz, and Giovanni Costa. "Determination of near-fault impulsive signals with multivariate naïve Bayes method." Natural Hazards 108.2 (2021): 1763-1780.

Web-based macroseismic intensity study in Turkey – entries on Ekşi Sözlük

https://doi.org/10.5194/gc-4-69-2021 – 2021
Ertuncay, Deniz, Laura Cataldi, and Giovanni Costa. "Web-based macroseismic intensity study in Turkey–entries on Ekşi Sözlük." Geoscience Communication 4.1 (2021): 69-81.

An alternative pulse classification algorithm based on multiple wavelet analysis

https://doi.org/10.1007/s10950-019-09845-y – 2019
Ertuncay, D., Costa, G. An alternative pulse classification algorithm based on multiple wavelet analysis. J Seismol 23, 929–942 (2019). https://doi.org/10.1007/s10950-019-09845-y

Variations of Source Parameters Due to Anisotropic Focal Region

http://www.jeofizik.org.tr/resimler/ekler/7181b9b08aaa68f_ek.pdf?dergi=41 – 2016
Ertuncay, Deniz and Cagri Diner. "Variations of Source Parameters Due to Anisotropic Focal Region" *Bulletin of Geophysics (*Jeofizik*)* (2016) (Turkish): 18, 36-47. ISSN:0259-1472.

CONFERENCES AND SEMINARS

2016 – 2021 – Vienna, Austria
EGU General Assembly 2016-2021

21/10/2020 – 23/10/2020 – Online
ChEESE Advanced Training on HPC for Computational Seismology

12/09/2019 – 13/09/2019 – Istanbul, Turkey
SERA European Seismic Risk Model Workshop and OpenQuake-engine Training Workshop

08/07/2019 – 18/07/2019 – Montreal, Canada
27th General Assembly of The International Union of Geodesy and Geophysics

17/06/2019 – 21/06/2019 – Genova, Italy
Machine Learning Crash Course 2019

28/05/2019 – 30/05/2019 – Taormina, Italy
Antelope User Group Meeting 2019

08/05/2019 – 09/05/2019 – Trieste, Italy
Seismotectonics of the Eastern and Southern Alps and their transition to the Dinarides

19/11/2018 – 21/11/2018 – Bologna, Italy
37th Gruppo Nazionale di Geofisica della Terra Solida

02/07/2018 – 05/07/2018 – Istanbul, Turkey
Machine Learning in Bosporus - Ismail Ari Summer School 2018: Speech, Language Processing and Bioinformatics

14/11/2017 – 15/11/2017 – Ljubljana, Slovenia
Technical Workshop on Internet Macro-seismology

13/11/2017 – 13/11/2017
Seismology: facts, fantasy and the just plain weird In memory of Marco Mucciarelli

21/10/2017 – 21/10/2017 – Ljubljana, Slovenia
A road-map for geology based seismic hazard models: Current practices, advantages, limitations, and what still lies ahead

11/09/2017 – 11/09/2017 – Trieste, Italy
Social Media and Science Communication

05/09/2017 – 07/09/2017 – Lenzburg, Switzerland
PSHA Workshop Future directions for probabilistic seismic hazard assessment at a local, national and transnational scale

29/05/2017 – 31/05/2017 – Vienna, Austria
European Antelope User Group Meeting 2017