

Dr. Yeşim ÇUBUK-SABUNCU

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WORK EXPERIENCE

01/2023 – at present	Postdoctoral Researcher (Specialist in the field of seismology) ChEESE-2P (Centre of Excellence (CoE) for Exascale in Solid Earth) Project Icelandic Meteorological Office (IMO), Service and Research Division, Volcanic Activity, Earthquakes and Deformation Section, Reykjavík – Iceland
05/2019 – 01/2023	Postdoctoral Researcher (Specialist in the field of seismology) Rannis IS-NOISE and Grant-of-Excellence IS-TREMOR projects Icelandic Meteorological Office (IMO), Monitoring and Forecasting Department, Reykjavík – Iceland
20 April - 9 May 2024	Visiting Researcher Green Institute of Geophysics and Planetary Physics Scripps Institution of Oceanography, University of California, San Diego, USA
1-30/10/2022 06/2023	Visiting Researcher Royal Observatory of Belgium (ROB), Seismology and Gravimetry Dep., Belgium
12/2016 – 06/2017	Visiting Researcher Middle East Technical University (METU), Institute of Marine Sciences, Geophysics Section, Mersin – Turkey
12/2009 – 02/2016	Research and Teaching Assistant Istanbul Technical University (ITU), the Faculty of Mines, Department of Geophysical Engineering, Istanbul – Turkey
10/2015 – 11/2015 05/2014 – 06/2014 04/2013 – 10/2013	Visiting Researcher ETH Zurich, Institute of Geophysics, Computational Seismology Group, Zurich – Switzerland
11/2012 – 12/2012	Visiting Researcher Nevşehir University, Geophysical Engineering Department, Nevşehir – Turkey

EDUCATION

01/2010 – 10/2016	Ph.D., Geophysical Engineering (GPA: 3.69 / 4.0) Istanbul Technical University (ITU), Graduate School of Institute of Science and Technology, Istanbul, Turkey
2007 – 2010	M.Sc., Geophysical Engineering (GPA: 3.19 / 4.0) Istanbul Technical University (ITU), Graduate School of Institute of Science and Technology, Istanbul, Turkey
2003 – 2007	B.Sc., Geophysical Engineering (GPA: 3.45 / 4.0, 3rd Honors Deg.) Kocaeli University (KOU), Faculty of Engineering, Kocaeli, Turkey

LANGUAGE SKILLS

Mother Tongue: Turkish
Second Language: English (Fluent)
Third Language: Icelandic (A2)

COMPUTER SKILLS

Operating Systems:	Linux, Mac OS X, Windows, High Performance Computing (HPC)
Programming:	Python, MATLAB
Technical Software:	ObsPY, MSNoise, Tandem, SES3D, LASIF, GMT, COVSEISNET, PyCWT-dt-wavelet, SAC, TDMT_INVc, ArcGIS, Paraview, Grapher-Surfer, Geopsy
Other Software:	MS Office, Inkscape, Corel Draw, Gimp

PUBLICATIONS

- [14] Ardid, A., Dempsey, D., Caudron, C., Cronin, S., Kennedy, B., Girona, T., Potter, S., Lamb, O., Miller, C., Cabrera, L., Ruiz, S., Pacheco, J., Mora, M., Maranto, A., **Çubuk-Sabuncu, Y.**, De Angelis, S., Roman, D. (2023). Generalized Eruption Forecasting Models using Machine Learning Trained on Seismic Data from 24 Volcanoes. DOI: 10.21203/rs.3.rs-3483573/v1 (preprint).
- [13] Soubestre, J., Caudron, C., Melnik, O., Lecocq, T., Jaupart, C., Shapiro, N., Journeau, K., **Çubuk-Sabuncu, Y.**, Jonsdottir, K. (2024). Dynamics of the 2021 Fagradalsfjall eruption (Iceland) revealed by volcanic tremor patterns. *In review-submitted*.
- [12] Sun, Y.S., Melgar, D., Ruiz-Angulo, A., Ganas, A., Taymaz, T., Crowell, B., Xu, X., Tsironi, V., Karasante, I., Yolsal-Çevikbilen, S., Erman, C., Irmak, T.S., **Çubuk-Sabuncu, Y.**, Eken T. (2024). *Geophysical Journal International*, 2024(6), 237, 3, 1285-1300.
- [11] Cetin, K.Ö., Kalkan, E., Askan, A., Bohnhoff, M., Ergintav, S., Konca, A.Ö., Taymaz, T., **Çubuk Sabuncu, Y.**, Gulerce Z. (2024). Preface for the Focus Section on the 6 February 2023, Kahramanmaraş, Türkiye, Earthquakes. *Seismological Research Letters*, 95, 2A, 560-561.
- [10] Klaasen, S., Thrastarson, S., **Çubuk-Sabuncu, Y.**, Jonsdottir, K., Gebraad, L., Paitz, P., Fichtner, A. Subglacial volcano monitoring with fibre-optic sensing: Grímsvötn, Iceland. *Volcanica*, 6(2), 301-311.
- [9] **Çubuk-Sabuncu, Y.**, Jónsdóttir, K., Arnadóttir, Th., Mordret, A., Caudron, C., Lecocq, T., De Plaen, R. Temporal Seismic Velocity Changes Associated with the Mw 6.1, May 2008 Olfus Doublet, South Iceland: a Joint Interpretation from dv/v and GPS. *JGR Solid Earth*, 129 (4), e2023JB027064, <https://doi.org/10.1029/2023JB027064>.
- [8] Fichtner, A., Klaasen, S., Thrastarson, S., **Çubuk-Sabuncu, Y.**, Paitz, P. (2022). Fiber-optic observation of volcanic tremor through floating ice sheet resonance, *The Seismic Record* 2 (3), 148-155.
- [7] Thrastarson, S., Torfason, R., Klaasen, S., Paitz, P., **Çubuk-Sabuncu, Y.**, Jónsdóttir, K., Fichtner, A. (2022). Detecting Seismic Events with Computer Vision: Applications for Fiber-Optic Sensing, DOI:<https://doi.org/10.1002/essoar.10509693.1> (preprint).
- [6] S. Klaasen, S. Thrastarson, A. Fichtner, **Y. Çubuk-Sabuncu**, K. Jonsdottir (2022). Sensing Iceland's most active volcano with a "buried hair", *EOS* 103, <https://doi.org/10.1029/2022EO220007>
- [5] **Çubuk-Sabuncu, Y.**, Jónsdóttir, K., Caudron, C., Lecocq, T., Parks, M. M., Geirsson, H., Mordret, A. (2021). Temporal seismic velocity changes during the 2020 rapid inflation at Mt. Thorbjörn-Svartsengi, Iceland, using seismic ambient noise, *Geophysical Research Letters* (GRL), Vol. 48, e2020GL092265, <https://doi.org/10.1029/2020GL092265>.
- [4] Fichtner A., van Herwaarden, D. P., Afanasiev, M., Simuté, S., Krischer, L., **Çubuk-Sabuncu, Y.**, Taymaz, T., Colli, L., Saygin, E., Villaseñor, A., Trampert, J., Cupillard, P., Bunge, H. P., Igel, H. (2018). The Collaborative Seismic Earth Model: Generation 1, *Geophysical Research Letters* (GRL), doi:10.1029/2018GL077338.
- [3] **Çubuk-Sabuncu, Y.**, Taymaz, T., Fichtner, A. (2017). 3D Velocity Structure of Western Turkey: Constraints from Full Waveform Tomography, *Physics of the Earth and Planetary Interiors (PEPI)*, Vol. 270, pp. 90-112.
- [2] Confal, J., Eken, T., Tilmann, F., Yolsal-Çevikbilen, **Çubuk-Sabuncu, Y.**, Saygin, E., Taymaz T. (2016). Investigation of Mantle Kinematics beneath the Hellenic-Subduction Zone with Teleseismic Direct Shear Waves, *Physics of the Earth and Planetary Interiors (PEPI)*, 261, 141-151, 10.1016/j.pepi.2016.10.012.
- [1] **Çubuk, Y.**, Yolsal-Çevikbilen, S. and Taymaz, T. (2014). Source Parameters of Bala-Sırapınar (Central Turkey) Earthquakes of 2005-2008: Implications on Internal Deformations of the Anatolian Plate, *Tectonophysics*, Vol. 635, pp.125-153.

GRANTS / AWARDS

- **Full Time Graduate Student Assistantship**
Istanbul Technical University, the Faculty of Mines, Turkey, 2009-2016.
- **TUBITAK 2214 - International Research Fellowship Program for Ph.D. Students**
ETH Zurich, Swiss Federal Institute of Technology, Switzerland
6 Months during 01/04/2013 – 30/09/2013
- **European Union - COST Action – ES1401 – 1st TIDES (Time Dependent Seismology) Advanced Training School**
C.R.U. Bertinoro, (FC) Italy, June 2015
- **European Union - COST Action – ES1401 – STSMs (Short Term Scientific Missions)**
ETH Zurich, Swiss Federal Institute of Technology, Switzerland
1 Month during 01/10/2015 – 31/10/2015
- **TUBITAK 2224A - International Scientific Meetings Support Program for Graduate Students**
C.R.U. Bertinoro (FC) Italy, June 2015.
- **Istanbul Technical University, I-Type BAP Project Support for Graduate Students**
Project No: 36969, during 2009 – 2016

SUPERVISION

- **Co-supervisor** of student research project at Icelandic Met Office (3-months 2022). Hydroacoustics: Listening gas emissions from geothermal areas. Icelandic Student Innovation Fund, RANNIS Project No. 2210473-1101. Grant Awardees: Bethany Erin Vanderhoof Supervisors: Jonsdottir, K., Caudron, C., Çubuk-Sabuncu, Y., Pfeffer M.A.
- **Second supervisor** of student research project at Icelandic Met Office (3-months 2021). TremvALERT: Development of an automatic audio alert function to tremv-code for real time tremor monitoring with RSAM data. Icelandic Student Innovation Fund, RANNIS Project No: 219143-1101 Grant Awardees: Phordur Agust Karlsson, Bethany Erin Vanderhoof Supervisors: Jonsdottir, K., Çubuk-Sabuncu, Y. Other Advisors: Barsotti, S., Caudron, C., Lecocq, T., Bernharðsdottir, S.J.
- **Supervision (20%) to student research interns at Icelandic Met Office (May-October 2020).** Seismic analysis of recent hydrothermal explosions in Iceland and New Zealand, Towards improved monitoring of a volcanic hazard. Icelandic Student Innovation Fund, RANNIS Project No: 207380-0091. Grant Awardees: Jacqueline Grech Licari, Maud Johanneke Smit , Supervisors: Jonsdottir, K., Çubuk-Sabuncu, Y., Other Advisors: Brandsdottir, B., Barsotti, S., Einarsson, B.

PROFESSIONAL SERVICE

- **Ph.D. Thesis jury** of Nowé S. (September 2024). Characterization of cryo–, hydro– and volcano–seismic sources in the Vatnajökull icecap region (Iceland), from the analysis of ambient seismic noise correlograms. Faculté des Sciences, Université libre de Bruxelles.
- **Co-convener**, EGU General Assembly 2024, SM5.2. Ambient Seismic Noise & Seismic Interferometry Session. Vienna, Austria & Online | 14-19 April 2024.
- **Organizer**, Outstanding Student and PhD candidate Presentation (OSPP) Contest Organizer for SM5.2. Ambient Seismic Noise & Seismic Interferometry Session, EGU General Assembly 14-19 April 2024.
- **Co-Chair**, SEG (Society of Exploration Geophysicists), Committee on University and Student Programs (CUSP), since March 2023 - today .
- **Organizer**, Outstanding Student and PhD candidate Presentation (OSPP) Contest Organizer for SM3.1. Ambient Seismic Noise & Seismic Interferometry Session, EGU General Assembly 23-28 April 2023.
- **Co-convener**, EGU General Assembly 2023, SM3.1. Ambient Seismic Noise & Seismic Interferometry Session. Vienna, Austria & Online | 23-28 April 2023.
- **Organizer**, Outstanding Student and PhD candidate Presentation (OSPP) Contest Organizer for SM3.1. Ambient Seismic Noise & Seismic Interferometry Session, EGU General Assembly 2022, 23-27 May 2022.
- **Co-convener**, EGU General Assembly 2022, SM3.1. Ambient Seismic Noise & Seismic Interferometry Session. Vienna, Austria & Online | 23–27 May 2022.

- **Chairperson**, vEGU General Assembly 2021, SM3.1. Ambient seismic noise seismology: Topics, targets, tools & techniques, Online | 19-30 April 2021
- **Organizing and Executive Committee, Assistant Secretary**; Humboldt Kolleg 2016, Istanbul Technical University, 10-12 March 2016
- **Organizing and Executive Committee, Executive Assistant**; International Symposium On Historical Earthquakes and Conservation of Monuments and Sites in the Eastern Mediterranean Region: “500th Anniversary Year Of The 1509 September 10, Marmara Earthquake, Istanbul Technical University, 10-12 September 2009

INVITED SEMINAR

- Cubuk-Sabuncu, Y. (2023). Monitoring of Icelandic Volcanoes with Distributed Acoustic Sensing and Seismic Ambient Noise. Atmospheric, Earth and Energy Division/Geophysical Monitoring Program, Lawrence Livermore National Laboratory, USA, Guest Seminar Series, 9 March 2023 (Online talk).

INVITED TALKS

- Cubuk-Sabuncu, Y. Fichtner, A., Klaasen, S., Thrastarson, S., Caudron, C., Lecocq, T., Soubestre, J., Jonsdottir, K. (2022). Fiber-optic Monitoring of a Volcanic Eruption: Fagradalsfjall, Iceland, AGU Fall Meeting Abstracts, S15A-01, Chicago, USA (Onsite talk).
- Çubuk, Y., Taymaz, T. and Fichtner, A. 2016. 3D Multi-Scale Full Waveform Inversion in the Sea of Marmara Region (NW Turkey), FaultLab Workshop, 14-16 June 2016, Antalya, pp. 25 (Onsite talk).

Google Scholar: <https://scholar.google.com/citations?user=OWUswNQAAAAJ&hl=en&oi=ao>

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