

Emre HAVAZLI

e.havazli@rsmas.miami.edu

Phone: (+1) 305 336 2956

Research Interests InSAR, Remote Sensing, Active Tectonics, Space Geodesy, Time-Series Analysis

EDUCATION

- 2014 – Present **Ph.D.** Marine Geology and Geophysics, Rosenstiel School of Marine and Atmospheric Sciences University of Miami (Miami, FL, USA)
Advisor: Shimon Wdowinski, Falk Amelung
Expected graduation: December 2018
- 2010 – 2012 **MSc.** Geodesy Department of Kandilli Observatory and Earthquake Research Institute, Bogazici University (Istanbul, Turkey)
Advisor: Haluk OZENER
- 2003 – 2009 **BSc.** Geodesy and Photogrammetry Engineering, Yildiz Technical University (Istanbul, Turkey)

PROFESSIONAL EXPERIENCE

- 2014 - Present **Graduate Assistant**
Marine Geology and Geophysics Department of University of Miami, Rosenstiel School of Marine and Atmospheric Sciences
- 2011 – 2014 **Research Assistant**
Geodesy Department of Kandilli Observatory and Earthquake Research Institute at Bogazici University, Istanbul, Turkey
- 2010 – 2012 **Research Project Member**
Determination of Displacement Vectors and Strain Analysis using GPS and Precise Leveling techniques on Tuzla Fault-Izmir and its Vicinity, supported by TUBITAK (The Scientific and Technological Research Council of Turkey)
- 2009 – 2010 **Geodesy and Photogrammetry Engineer**
Omurlu Construction Co., Bridge, junction and linking roads Construction at Ataturk Airport, Istanbul, Turkey

TEACHING EXPERIENCE

- Fall 2016 **Teaching Assistant**
University of Miami, Rosenstiel School of Marine and Atmospheric Sciences, MSC – 108, Environmental Oceanography
- Fall 2015 **Teaching Assistant**
University of Miami, Rosenstiel School of Marine and Atmospheric Sciences, MSC – 111, Introduction to Marine Sciences Laboratory
- 2010 – 2014 **Teaching Assistant**
Bogazici University, Civil Engineering Department, Istanbul, Turkey, CE-200, Surveying

FIELD EXPERIENCE

- 2012 **Van – Eastern Turkey**
Global Positioning System (GPS) campaign as part of 2012 Van Earthquake response.
- 2010 – 2014 **Tuzla Fault - Izmir (Western Turkey)**
Annual Global Positioning System (GPS) campaigns and precise leveling measurements as part of S.MSc. research and TUBITAK funded project.
- 2010 – 2014 **North Anatolian Fault – Aseismic creep at Ismetpasa section**
Annual Global Positioning System (GPS) campaigns.

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2010 – 2014

Iznik – Sapanca – Akyazi (western) section of North Anatolian Fault

Annual Global Positioning System (GPS) campaigns.

SKILLS

COMPUTER

Software: DOS and UNIX systems, ISCE, ROI_PAC, GMTSAR, GAMMA, DORIS, GDAL, ADORE, GAMIT-GLOBK, AutoCAD

Programming: Python, MATLAB, Shell scripting, Generic Mapping Tools (GMT), LaTeX

LANGUAGE

Turkish (Native), English (Fluent)

PUBLICATIONS

In Prep

Havazli E., Wdowinski S., Amelung F.; “Uncertainty estimations of InSAR time series products due to stratified and turbulent atmospheric phase delays: A simulation approach”

Havazli E., Wdowinski S., Amelung F.; “Interseismic Strain Accumulation of the Gazikoy-Saros segment (Ganos fault) of the North Anatolian Fault Zone”

Journal Publications

Aktug B., Ozener H., Dogru A., Sabuncu A., Turgut B., Halicioğlu K., Yilmaz O., **Havazli E.**; “Slip rates and seismic potential on the East Anatolian Fault System using an improved GPS velocity field”, *Journal of Geodynamics*; doi: 10.1016/j.jpg.2016.01.001

Pacheco-Martinez J., Wdowinski S., Cabral-Cano E., Hernandez-Marin M., Ortiz-Lozano A., Oliver Cabrera T., Solano-Rojas D., **Havazli E.**; “Application of InSAR and gravimetric surveys for developing construction codes in zones of land subsidence induced by groundwater extraction: case study of Aguascalientes, Mexico”, *Proceedings of International Association of Hydrological Sciences* 372 (2015): 121.

Conference Presentations

Havazli E., Wdowinski S., Amelung F., “Interseismic Strain Accumulation of the Gazikoy-Saros segment (Ganos fault) of the North Anatolian Fault Zone”, AGU Fall Meeting 2017, December 11-15, 2017, New Orleans, Louisiana, USA

Havazli E., Wdowinski S., “The effect of temporal resolution due to atmospheric phase delay on minimum detectable signal in InSAR time series: Application to slow deformation over Socorro Magma Body”, FRINGE 2017, June 5-9, 2017, Helsinki, FINLAND

Havazli E., Wdowinski S., “The impact of temporal and geometrical phase decorrelations on the uncertainty level of InSAR time series estimations”, FRINGE 2017, June 5-9, 2017, Helsinki, FINLAND

Havazli E., Wdowinski S., Amelung F., “The effect of temporal resolution on detection threshold of InSAR time series: Application to Socorro Magma Body”, AGU Fall Meeting 2016, December 12-16, 2016, San Francisco, California, USA

Havazli E., Wdowinski S., Amelung F., “How well can InSAR detect slow deformation: Application to the slow uplift of Socorro Magma Body”, 2016 UNAVCO Science Workshop, March 28-31, 2016, Broomfield, Colorado, USA

Havazli E., Wdowinski S., Amelung F., “Possible Time Dependent Deformation over Socorro Magma Body from GPS and InSAR”, AGU Fall Meeting 2015, December 14-18, 2015, San Francisco, California, USA

Havazli E., Wdowinski S., Osmanoglu B., “3-D InSAR Phase Unwrapping with Extended Kalman Filter: Applications to interseismic deformation detection across the North Anatolian and San Andreas Fault zones”, AGU Fall Meeting 2014, December 15-19, 2014, San Francisco, California, USA

Havazli E., Wdowinski S., Osmanoglu B., “InSAR Phase Unwrapping with Extended Kalman Filtering: Application to Subsidence in Mexico City”, WEGENER 2014, 17th General Assembly of WEGENER on earth deformation and the study of earthquakes using geodesy and geodynamics, 1 – 5 September 2014, Leeds, UK

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Havazli E., Amelung F., Wdowinski S., Fattahi H., “Inter-seismic strain accumulation and creep distribution along the Ismetpasa Section of the North Anatolian Fault Zone”, 2014 UNAVCO Science Workshop, March 4-6, 2014, Broomfield, Colorado, USA

Havazli E., Fattahi H., Amelung F. “InSAR time-series constraints on inter-seismic strain accumulation and creep distribution along North Anatolian and Chaman Faults”, AGU Fall Meeting 2013, December 9-13, 2013, San Francisco, California, USA

Ozener H., Garagon Dogru A., Yilmaz O., Turgut B., Halicioglu K., Sabuncu A., **Havazli E.**, Gurkan O., “Contemporary Horizontal Velocity and Strain Rate Fields in Akyazi Region of the North Anatolian Fault”, AGU Fall Meeting 2012, December 3-7, 2012, San Francisco, California, USA

Havazli E., Ozener H., Aktug B., “Analysis of Strain Accumulation by Geodetic Techniques along Tuzla Fault – Western Anatolia”, AGU Fall Meeting 2012, December 3–7, 2012, San Francisco, California, USA

Havazli E., Ozener H., “Determination of Strain Accumulation along Tuzla Fault and its Vicinity, Western Turkey”, WEGENER 2012 16th General Assembly of WEGENER on earth deformation and the study of earthquakes using geodesy and geodynamics, September 17–20, 2012, Strasbourg, France

Havazli E., Ozener H., “Geodetically Derived Crustal Movements and Strain Field of Tuzla Fault and Surroundings, Western Turkey”, AGU Fall Meeting 2011, December 5–9, 2011, San Francisco, California, USA

Ozener H., Gurkan O., Turgut B., Yilmaz O., Unlutepe A., Dogru A., Halicioglu K., Sabuncu A., **Havazli E.**, Altin A., "Crustal Deformation from 15 Years Space-based Geodetic Data on the Inactive Fault Branch of Western North Anatolian Fault Zone", WEGENER 2010-15th General Assembly of WEGENER, September 14-17, 2010, Istanbul-Turkey

National Conference Proceedings (in Turkish)

Full Text

Haluk Özener, Aslı Doğru, Esen Arpat, Mustafa Acar, Bülent Turgut, Onur Yılmaz, Ahmet Ünlütepe, Kerem Halıcıoğlu, Aslı Sabuncu, **Emre Havazli**, Ahmet Altın, Tayfun Kaynarca, Ömer Farisoğulları, Arif Sabuncu, Haydar Akçay, "Investigation of Crustal Movements Around the Tuzla Fault and its Vicinity by Geodetic Techniques", 13. Harita Bilimsel Teknik Kurultayı, 18-22 April 2011, Ankara

Conference Presentations

Haluk Özener, Aslı Sabuncu, Kerem Halıcıoğlu, **Emre Havazli**, Aslı Dogru, Mustafa Acar, Esen Arpat, Bülent Turgut, Onur Yılmaz, "Investigation of Data Collected by Precise Leveling Technique and Analysis of Surveying Process – Seferihisar Case Study", TUJK 2012 TUYS'nin Modernizasyonu 28-30 March 2012, Zonguldak

GRANTS AND AWARDS

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|------|---|
| 2016 | UNAVCO Travel Grant
2016 UNAVCO Science Workshop, Broomfield CO (USA), March 28-31, 2016 |
| 2014 | International Association of Geodesy (IAG) Travel Award
17th General Assembly of WEGENER: Measuring and Modeling our Dynamic Planet Conference, Leeds, (UK) September 1-5, 2014 |
| 2014 | UNAVCO Travel Grant
InSAR Processing and Theory with GMTSAR Short Course – Boulder CO (USA), July 21-23, 2014 |
| 2014 | UNAVCO Travel Grant
2014 UNAVCO Science Workshop, Broomfield CO (USA), March 4-6, 2014 |
| 2013 | UNAVCO Travel Grant
InSAR: An introduction to Processing and Applications using ROI_PAC and GIANt Short Course – Boulder CO (USA), July 29-31, 2013 |

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2012 **International Association of Geodesy (IAG) Travel Award**
16th General Assembly of WEGENER: Monitoring and Modeling Earth Deformation From Giant to Small Scale Events, 2012, Strasbourg, France

SYNERGISTIC ACTIVITIES

2015 – Present **Program Student Travel Fund Representative and Student Travel Fund Committee Member**
Student Travel Fund representative for the Department of Marine Geosciences (formerly Marine Geology and Geophysics)
Board member of the Student Travel Fund organization of Rosenstiel School of Marine and Atmospheric Sciences at University of Miami

2014 – Present **Program Academic Representative**
Faculty liaison for the Department of Marine Geosciences (formerly Marine Geology and Geophysics)

2014 – 2015 **GEOTOPICS Seminar Series Organization**
Organization of GEOTOPICS seminar series in Rosenstiel School of Marine and Atmospheric Sciences at University of Miami

2010 **Organization Committee Member**
Organization committee member of WEGENER 2010 – 15th General Assembly of WEGENER