Tomoya Takano

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Educational Background

B.S. Geophysics, Tohoku University, 2008 – 2012

M.S. Geophysics, Tohoku University, 2012 – 2014

Ph.D. Geophysics, Tohoku University, 2016 – March/2019 (expected)

Thesis Titles

Ph.D. : Characteristics of stress sensitivity of seismic velocity changes by using seismic interferometry (tentative title)

M.S. : Detection of seismic velocity changes caused by the Earth tides with seismic interferometry

B.S. : Estimation of seismic velocity changes by using auto correlation functions of ambient noise recorded at Hi-net stations

Employment

4/2014 – 9/2015, Japan Radio Co., Ltd. (as a marine electronics engineer)

10/2015 – 3/2016, Technical Staff at Tohoku University

Awards

Outstanding student paper award, 2018, Japan Volcanological Society, 2018

Outstanding presentation award, 2017, Japan Seismological Society, 2017

Journal Highlights by *J. Geophys. Res.*, about the papar, Takano *et al*., 2017, *J. Geophys. Res.*, 2017

Grants

4/2017 – 3/2019 **Tomoya Takano (PI)**, Characteristics of stress sensitivity of seismic velocity changes by using seismic interferometry, *Japan Society for the Promotion of Science (JSPS)*, 17J02025, (6,500,000 JPY $\approx$ 59,000 USD)

Teaching

2016 Fall, Teaching assistant, Exercises in Mechanics, Tohoku University

2012 Spring, Teaching assistant, Experiments in Geophysics, Tohoku University

Publications

Journal Articles

1. **Takano, T.**, T. Nishimura, H. Nakahara, Y. Ohta, and S. Tanaka, 2014, Seismic velocity changes caused by the earth tide: Ambient noise correlation analyses of small-array data, *Geophysical Research Letters*, *41* (17), 6131-6136, doi:10.1002/2014GL060690

2. **Takano, T.**, T. Nishimura, H. Nakahara, 2017, Seismic velocity changes concentrated at the shallow structure as inferred from correlation analyses of ambient noise during volcano deformation at izu-oshima, japan, *Journal of Geophysical Research: Solid Earth*, *122* (8), 6721-6736, doi:10.1002/2017JB014340

3. **Takano, T.**, T. Nishimura, H. Nakahra, H. Ueda, E. Fujita, 2018, Sensitivity of seismic velocity changes to the tidal strain at different lapse-times: Data analyses of a small seismic array at Izu-Oshima volcano, *Submitted to Journal of Geophysical Research: Solid Earth*

Proceedings

1. **Takano, T.**, T. Nishimura, H. Nakahara, 2018, Seismic velocity changes in response to different direction of tidal strain, *EGU General Assembly*, Vienna, Austria, April 2018.

2. **Takano, T.**, T. Nishimura, H. Nakahara, 2017, Estimation of strain sensitivity of seismic velocity changes using the Earth tide: Analyses of seismic small array data at Izu-Oshima volcano, Japan, *AGU Fall meeting*, New Orleans, Louisiana, USA, December 2017.

3. **Takano, T.**, T. Nishimura, H. Nakahara, H. Ueda, E. Fujita, 2017, Estimation of strain sensitivity of seismic velocity changes using the Earth tide: Noise correlation analyses of small seismic array data at Izu-Oshima volcano, *Seismological Society of Japan Fall meeting*, S01-08, Kagoshima, Japan, October, 2017 (in Japanese)

4. **Takano, T.**, T. Nishimura, H. Nakahara, H. Ueda, E. Fujita, 2017, Strain sensitivity of seismic velocity changes at the shallow part of Izu-Oshima volcano: Ambient noise correlation analyses of small seismic array data, *Volcanological Society of Japan Fall Meeting*, SSS11-P12, Kumamoto, Japan, September, 2017 (in Japanese)

5. **Takano, T.**, T. Nishimura, H. Nakahara, H. Ueda, E. Fujita, 2017, Estimation of strain sensitivity of seismic velocity changes by using the tidal strain at Izu-Oshima volcano, *Scattered wave workshop*,S17-21, Tokyo, Japan, September, 2017 (in Japanese)

6. **Takano, T.**, T. Nishimura, H. Nakahara, 2017, Stress sensitivity of seismic velocity changes in depth as inferred from noise correlation analyses at Izu-Oshima volcano, Japan, *IASPEI*, Kobe, Japan, July 2017.

7. **Takano, T.**, T. Nishimura, H. Nakahara, 2017, Seismic velocity changes at the shallow structure during volcanic deformation at Izu-Oshima, Japan, *Ambient Noise Imaging and Monitoring 2017*, Cargese, France, June, 2017

8. **Takano, T.**, T. Nishimura, H. Nakahara, 2017, Seismic velocity changes localized at the shallow structure: Noise correlation analyses during volcanic deformation at Izu-Oshima, Japan, *GP-EES*, Sendai, Japan, June 2017.

9. **Takano, T.**, T. Nishimura, H. Nakahara, 2017, Estimation of seismic velocity changes in response to the earth tide: Noise correlation analysis at 13 active volcanoes in Japan, *Japan Geoscience Union Meeting*, SSS11-P12, Chiba, Japan, May, 2017 (in Japanese)

10. **Takano, T.**, T. Nishimura, H. Nakahara, Y. Ohta, and S. Tanaka, 2013, Detecting temporal changes of seismic velocity in response to tidal strain: analysis of a small array data at Iwate volcano, *AGU Fall meeting*, San Francisco, California, USA, December 2013.

11. **Takano, T.**, T. Nishimura, H. Nakahara, 2016, Estimation of stress sensitivity of seismic velocity changes at Izu-Oshima volcano: Analyses of JMA seismic data with seismic interferometry , *Scattered wave workshop*, Tokyo, Japan, September, 2016 (in Japanese)

12. **Takano, T.**, T. Nishimura, H. Nakahara, 2016, Characteristics of seismic velocity changes on volcanoes using noise correlation method: Analyses of JMA seismic data, *Japan Geoscience Union Meeting*, SVC47-23, Chiba, Japan, May, 2016 (in Japanese)

13. **Takano, T.**, T. Nishimura, H. Nakahara, Y. Ohta, S. Tanaka, 2013, Detecting temporal changes of seismic velocity in response to tidal strain : analysis of a small array data at Iwate volcano, *AGU Fall meeting*, San Francisco, California, USA, December 2013.

14. **Takano, T.**, T. Nishimura, H. Nakahara, Y. Ohta, S. Tanaka, 2013, Estimation of strain sensitivity of seismic velocity changes using the Earth tide: Noise correlation analyses of small seismic array data at Izu-Oshima volcano, *Seismological Society of Japan Fall meeting*, S01-08, Yokohama, Japan, October, 2013 (in Japanese)

15. **Takano, T.**, T. Nishimura, H. Nakahara, Y. Ohta, S. Tanaka, 2013, Detection of seismic velocity changes caused by the Earth tide with seismic interferometry: Analyses of small seismic array data at the foot of Mt. Iwate, *Scattered wave workshop*, Tokyo, Japan, September, 2013 (in Japanese)

16. **Takano, T.**, T. Nishimura, H. Nakahara, S. Tanaka, 2013, An attempt of detecting seismic velocity changes caused by the Earth tide with auto correlation functions of ambient noise, *Japan Geoscience Union Meeting*, SVC47-23, Chiba, Japan, May, 2013 (in Japanese)