# Tomoya Takano

## Personal Data


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| Place of Birth: | Japan |
| Current city: | Sendai, Japan |
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## Positions Held

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| *5/2019 – 3/2020* | Visiting Researcher at ISTerre, Universite Grenoble Alpes |
| 4/2019 – 3/2022 | Postdoctoral Fellowship of Japan Society for the Promotion of Science, Earthquake Research Institute, University of Tokyo |
| 4/2018 – 10/2018 | Visiting student at ISTerre in Grenoble university (Supervisor: Prof. Florent Brenguier) |
| 3/2017 – 3/2017 | Internship at Meteorological Research Institute |
| 4/2017 – 3/2019 | Research Fellow of the Japan Society for the Promotion of Science (DC2) |
| 10/2015 – 3/2016 | Technical Staff at Department of Geophysics, Tohoku University |
| 4/2014 – 9/2015 | Marin electronics engineer at Japan Radio Co., Ltd. |

## Educational Background

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| *4/2016 – 3/2019* | Ph.D. Geophysics, Tohoku University |
| *4/2012 – 3/2014* | M.S. Geophysics, Tohoku University |
| *4/2008 – 3/2012* | B.S. Geophysics, Tohoku University |

## Thesis Titles

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|---|---|
| *Ph.D.* | Temporal changes in seismic velocity of shallow structures at active volcanoes as inferred from analyses of ambient noise correlations |
| *M.S.* | Detection of seismic velocity changes caused by the Earth tides by seismic interferometry method |
| *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

## Others

The International Joint Graduate Program in Earth and Environmental Sciences (GP-EES)

Next Generation Volcano Researcher Development Program

## Grants

*4/2019 – 3/2022* | **Tomoya Takano (PI)**, Development of different size of array: Toward estimating stress sensitivity at lower crust, *Japan Society for the Promotion of Science* (*JSPS*), Postdoctoral Fellow, (15,960,000 JPY ≈ 144,000 USD)

*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*), Doctoral Course Students, 17J02025, (6,400,000 JPY ≈ 58,000 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. Nakahra, H. Ueda, E. Fujita, 2019, Sensitivity of seismic velocity changes to the tidal strain at different lapse-times: Data analyses of a small seismic array at Izu-Oshima volcano, *Journal of Geophysical Research: Solid Earth*, *accepted*

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. 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

## *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)

Last updated: March 15, 2019