

Section I. Personal details

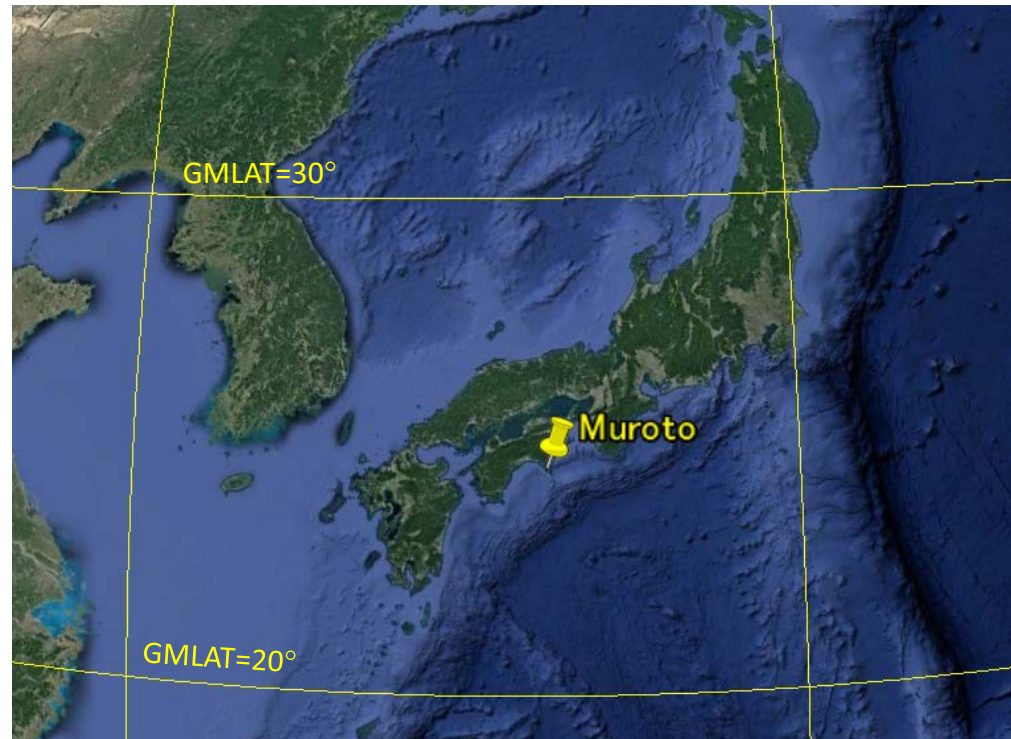
1. Full name: **Masahito Nosé**
2. Academic role: **Researcher**
3. Research group or research active area: **Space Physics, Solar-Terrestrial Physics**

Section II. Details of your research and research data

4. Project details: **Study of ionospheric Alfvén resonators and geomagnetic Pc1 pulsations observed at low-latitude ground stations**
5. Description of the data: **Geomagnetic field variations with induction magnetometers**
6. Ownership: who owns the data?: **Myself**
7. Characteristics of the data (select all that apply): **a. Observational**
8. Data types (select all that apply): **b. Data collected from sensors or instruments (including questionnaires)**
9. Size of the data: **470 MB/day, 245 GB (total)**
10. Importance of the data: **a. Vital**
11. Retention period: **d. More than 10 years**
12. How frequently do you update your data over the project period?: **Observatory at Muroto is closed. Thus no update will be made. However, the project is still running with a future plan to install magnetometers at different observatories.**
13. Is your data backed up regularly?: **b. No**
14. Do you currently have a formal Research Data Management Plan in place in your school/centre?: **b. No**
15. Who is currently responsible for managing the data? (select all that apply): **a. Research project manager, b. Designated person on project, f. Yourself**

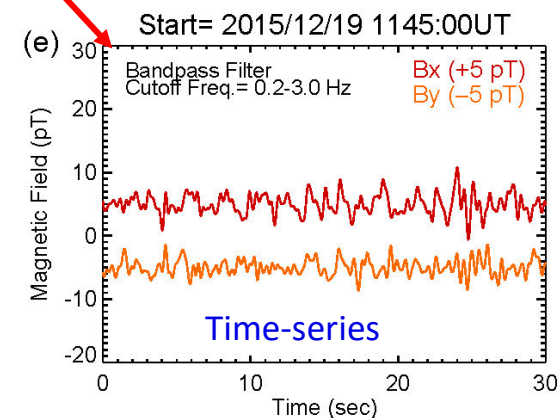
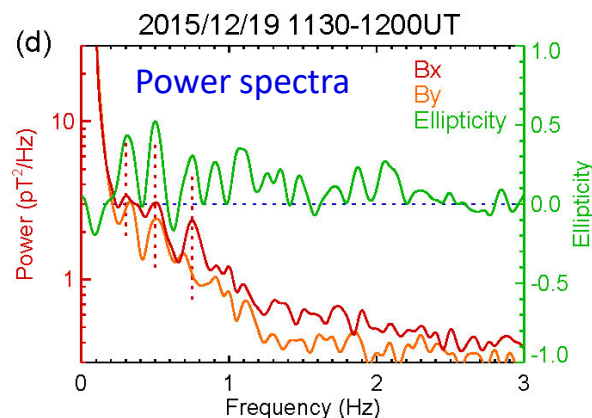
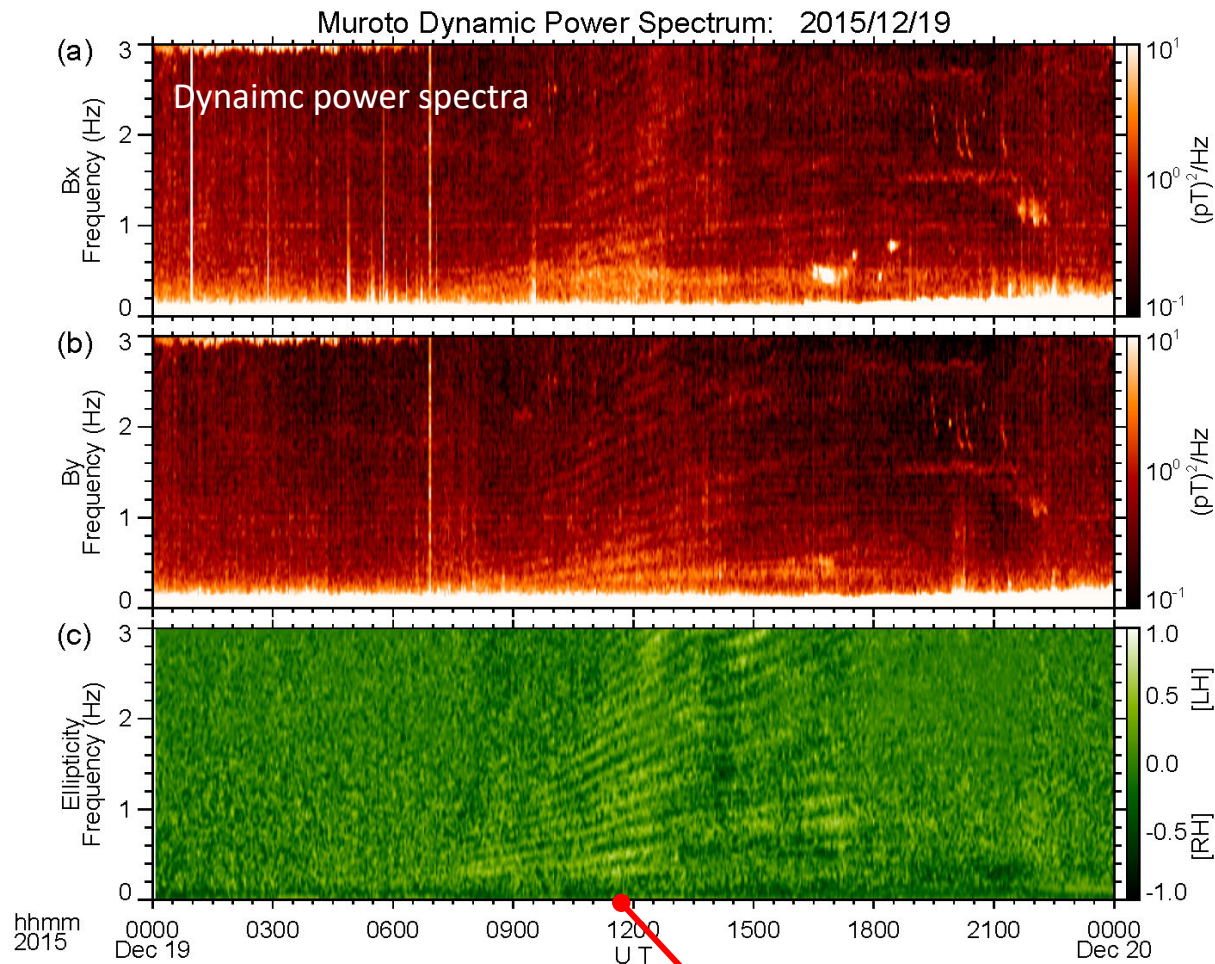
Induction magnetometer at Muroto, Japan

- Muroto
 - $L=1.206$ (GMLAT= 24.40°)
 - LT=UT+9 hr
- Induction coils (Bx, By, Bz)
 - manufactured by Metronix Geophysics, Germany
- Observation
 - Start: December 28, 2013
 - End: August 13, 2016
 - Cadence: 64 Hz



Ionospheric Alfvén Resonator observed at Muroto

- December 12, 2015
09-18 UT(18-03 LT)
- $\Delta f \sim 0.2$ Hz
- $\varepsilon > 0$ (left-handed polarization)



	Ad Hoc	One-Time	Active and Informative	Optimized for Re-Use
Planning your project	When it comes to my data, I have a "way of doing things" but no standard or documented plans.	I create some formal plans about how I will manage my data at the start of a project, but I generally don't refer back to them.	I develop detailed plans about how I will manage my data that I actively revisit and revise over the course of a project.	I have created plans for managing my data that are designed to streamline its future use by myself or others.
Organizing your data	I don't follow a consistent approach for keeping my data organized, so it often takes time to find things.	I have an approach for organizing my data, but I only put it into action after my project is complete.	I have an approach for organizing my data that I implement prospectively, but it not necessarily standardized.	I organize my data so that others can navigate, understand, and use it without me being present.
Saving and backing up your data	I decide what data is important while I am working on it and typically save it in a single location.	I know what data needs to be saved and I back it up after I'm done working on it to reduce the risk of loss.	I have a system for regularly saving important data while I am working on it. I have multiple backups.	I save my data in a manner and location designed maximize opportunities for re-use by myself and others.
Getting your data ready for analysis	I don't have a standardized or well documented process for preparing my data for analysis.	I have thought about how I will need to prepare my data, but I handle each case in a different manner.	My process for preparing data is standardized and well documented.	I prepare my data in such a way as to facilitate use by both myself and others in the future.
Analyzing your data and handling the outputs	I often have to redo my analyses or examine their products to determine what procedures or parameters were applied.	After I finish my analysis, I document the specific parameters, procedures, and protocols applied.	I regularly document the specifics of both my analysis workflow and decision making process while I am analyzing my data.	I have ensured that the specifics of my analysis workflow and decision making process can be understood and put into action by others.
Sharing and publishing your data	I share the results of my research, but generally I do not share the underlying data.	I share my data only when I'm required to do so or in response to direct requests from other researchers.	I regularly share the data that underlies my results and conclusions in a form that enables use by others.	Because of my excellent data management practices, I am able to efficiently share my data whenever I need to with whomever I need to.

Data Publication

- Whole data set are available from web server maintained by myself.
- Data DOI
 - 1 DOI is mint to the whole data set.
 - doi:10.17593/13882-05900

Magnetotelluric Data at Muroto, Japan

This dataset includes data measured with induction magnetometer and electrodes that are installed at Muroto, Japan.

Data Citation
Citation: Nose, M. (2017), Magnetotelluric Data at Muroto, Japan, doi:10.17593/13882-05900

General Characteristics
Parameters: Magnetic Field, Electric Field
Processing level: Final
Temporal resolution: PT1/60S
Start date: 2013-12-28T04:45:00
Stop date: 2016-08-13T23:47:52

Observatory Location
Observatory: Muroto
Latitude: 33.32°
Longitude: 134.12°
(Note: Latitudes and longitudes are expressed in decimal degrees. Eastern longitudes and Northern latitudes are positive.)

Citation & Contact Information
Acknowledgements: Please cite with doi when and where appropriate. Please contact PI before presentation and publication.
Contact Persons: Masahito Nose

Links
Magnetotelluric Data at <http://swdc244.kugi.kyoto-u.ac.jp/muroto/>
Muroto, Japan: Data files can be downloaded from this link.
DOI: 10.17593/13882-05900
Digital Object Identifier

How to Cite Datasets: <http://www.dcc.ac.uk/resources/how-guides/cite-datasets>
Bail, A. and M. Duke [2011], How to cite datasets and link to publications, DCC How-to Guides, Edinburgh: Digital Curation Centre.

Provider Version
1.0

Update History
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Landing page of the “Data DOI” above →

Data Citation

- In the recently published article [Nosé et al., 2017], the magnetotelluric data (doi:10.17593/13882-05900) were cited.
- Data citation is possible in Journal of Geophysical Research, which is published from Wiley and widely recognized in the field of STP.



Text

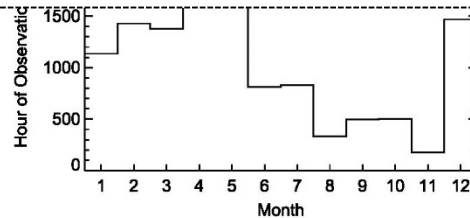


Figure 1. Hours of observations as a function of LT and month at Muroto for the period from 28 December 2013 to 13 August 2016.

We analyze data from the induction magnetometer for the period from 28 December 2013 to 13 August 2016 [Nosé, 2017]. However, because of power outage and instrument failure, there are some data gaps during this period. Figure 1 shows distributions of observation hours as a function of LT and season. The LT distribution is rather uniform (Figure 1a), but the seasonal distribution is uneven (Figure 1b). We have less data from August to November than other months. As shown later, we do not calculate the occurrence probability of IAR in November, because the smaller amount of data (<200 h of observations) would give a larger statistical uncertainty.

References

- P., G. Saton, B. Zieger, L. M. Rabinowicz, and T. G. Kudimseva, (1998), Parameters of global thunderstorm activity deduced from the long-term Schumann resonance records. *J. Atmos. Sol. Terr. Phys.*, 60(3), 387–399, doi:10.1016/S1364-6826(97)00121-1.
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- Nosé, M. (2017), Magnetotelluric data at Muroto, Japan, doi:10.17593/13882-05900.
- Noto, H. (1931), Statistical investigations on thunderstorms in Japan (1), *Jpn. J. Astron. Geophys.*, 9, 207–243.
- Parent, A., I. R. Mann, and I. J. Rae (2010), Effects of substorm dynamics on magnetic signatures of the ionospheric Alfvén resonator, *J. Geophys. Res.*, 115, A02312, doi:10.1029/2009JA014673.