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Abstract The text for the first abstract goes here. This should be in English, no longer than 200 words, and should not include references.

Non-technical summary The text goes here. Again, no longer than 200 words.

1 Section name

All articles must include an abstract, author ORCIDs and author contributions (in the preamble of this tex file), a data and code availability statement, and a list of references.

Section names are at the discretion of the authors. A simple structure for an article would include an Introduction, Methods and Data, Results, Discussion, and Conclusions, but authors are encouraged to choose a structure that best presents their work.

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In the text of an article, citations may either be in-line, as in the case of citing Metropolis and Ulam (1949), or in parentheses (e.g., Metropolis and Ulam, 1949), as appropriate. All citations in the text must be listed in the references section, and all listed references must be cited at least once in the text. Examples of preprint (van den Ende et al., 2021), software (Eulenfeld et al., 2025), and report (Mueller et al., 2003) citations can be found in the .bib file accompanying this template, and can be adapted for other code, datasets, seismic networks, unpublished works, reports, and more.

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1.2 Headings

1.2.1 Subsubsection

Three levels of section headings is the maximum[1] - no subsubsubsections, please! Note that footnotes are permitted, as in the previous sentence, though we encourage authors to really think about whether a footnote is necessary or if the information it contains could be included in the main text.

1.3 Figures and Tables

Figures should be labeled, captioned, and referenced within the text (e.g., Fig. 1 and Figs 1a, b, 2c). When an article is accepted, separate full-resolution files must be uploaded for each figure. While Figure 1 is a page-width figure, Figure 2 is a column-width figure. You can see the difference with the `preprint` mode. Use the `\ref` command to link to your labeled figures, tables, and equations. Labeling and linking to section headings is not recommended.

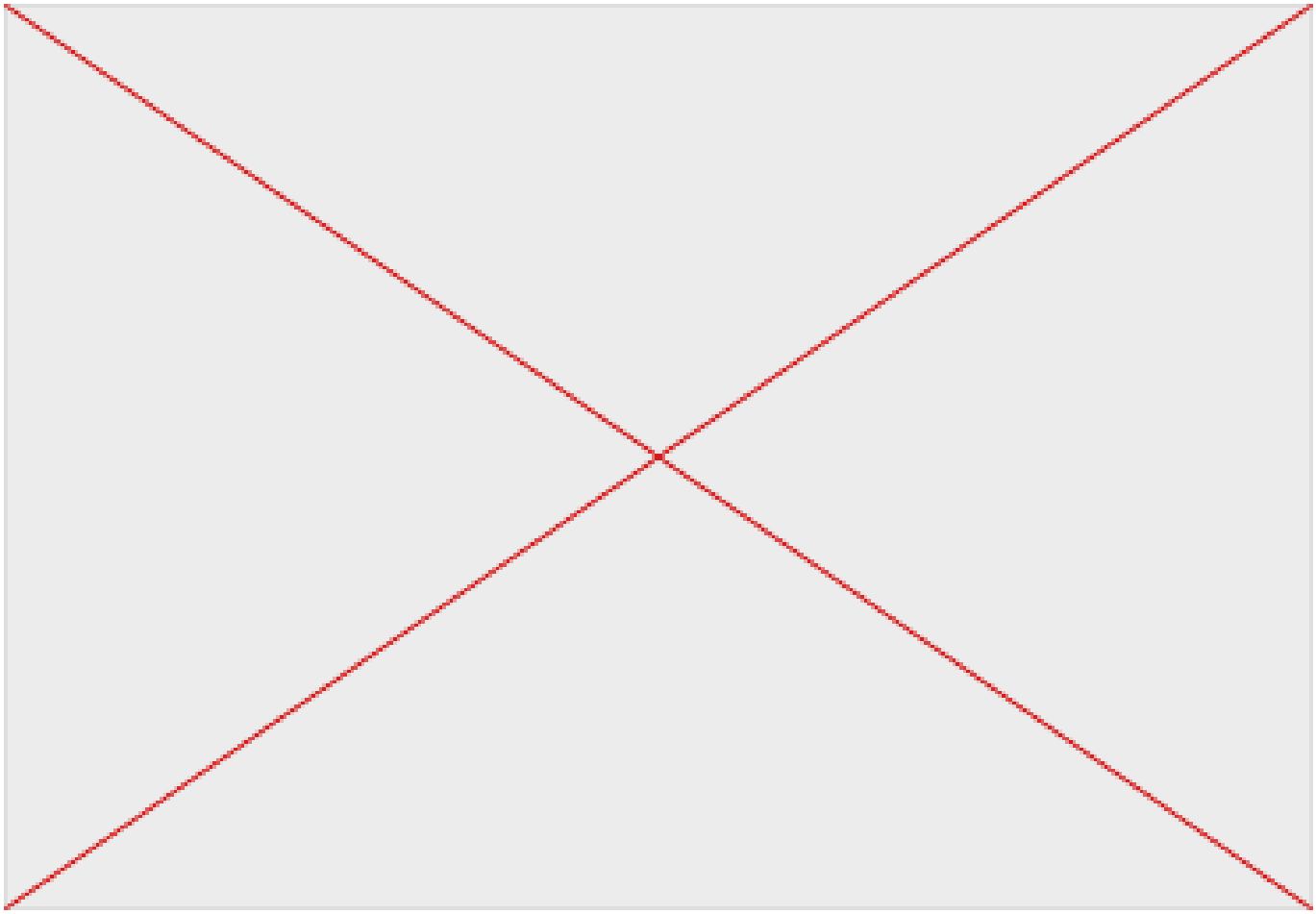

Figure 1 This is a caption.

Tables can also be included, with captions. Complex tables should be in Supplementary Materials.

Event ID	Location	Magnitude	A random number
1	Here	2.5	17
2	There	4.1	1350

Table 1 Simple tables are accepted. Complex tables should be in Supplementary Materials.

[1] Seriously, the maximum

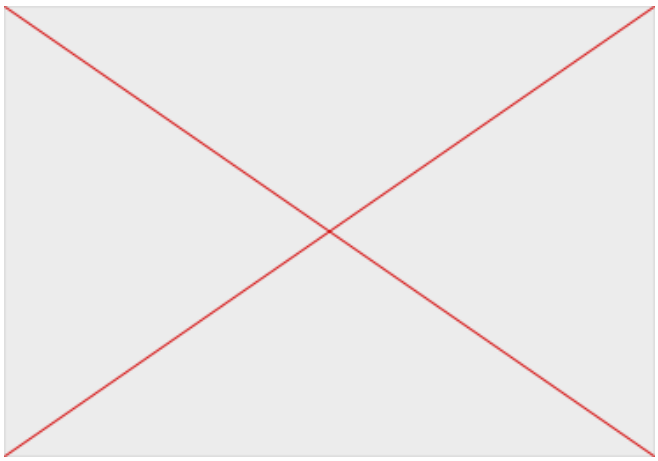

Figure 2 This is another caption.

Tab. 1 (use Tabs if several tables) is an example of a relatively simple table. We strongly encourage authors to put tables in Supplementary Materials, and/or into a csv or similar format, upload them to a data repository such as zenodo, and reference them in the section on data availability instead of including them in the article itself.

1.4 Equations and maths

Equations can be included in the text, and should be labeled so they can be referenced. One example is Equation 1:

$$\mathrm{G} = \frac{1}{2}(2\cos z) + (1/2)(2\cos z + j\sin z - j\sin z) + (1/2)(\cos z + j\sin z + \cos z - j\sin z) - (1/2)(e^{jz} + e^{-jz}) \quad (1)$$

Please type vectors and matrices in bold: $\mathbf{X} = [x_1, x_2, \ldots, x_n]^T$.

1.5 Code

Code examples should be concise and descriptive. They should introduce core functionality or specific syntax and should be included using the `lstlisting` environment. Note that lines longer than 45 characters will be broken when using the prepress option. Extended examples or use cases should be uploaded separately. Individual words of code can be written inline, for example:

To improve stability of the inversion, the `Model` object accepts the `strict` keyword, which disables piecewise linear approximation of the target function (Listing 1).

Listing 1 Example use of `Model`

```
#2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4|
import mymodule as mm

model = mm.Model(strict=True)
mdls = model.perturb()

for mdl in mdls:
var = mdl.get_variance()
```

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What's the best way to track changes for revisions? There are lots of TeX packages for this and you're welcome to use whatever you like *as long as you remove all signs of that package before sending in production files for an accepted article*. Alternatively, you can use a tool like `latexdiff` to find and format tracked changes between an initial tex file and a revised tex file – this way, you will end up with a clean (revised) tex file for production with no excess packages.

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Acknowledgements

Thank all relevant parties and acknowledge funding sources, if any.

Data and code availability

Authors should direct readers to an open access repositories where data and code used in the study are made available. Zenodo, figshare, and Dryad are examples of repositories where authors can archive their data and code. Citations for datasets and codes should be included in the references, including citations for any seismic networks from which data was used. Github is not considered a persistent repository, and we encourage authors to archive a snapshot of any github-hosted code on zenodo.

Competing interests

Declare any competing interests, financial or otherwise, pertaining to any of the authors. If there are none, state that the authors have no competing interests.

References

Eulenfeld, T., Mark, H., Katz, D. S., Uieda, L., Lecocq, T., and Megies, T. trichter/rf: v1.1.1 [software], 2025. doi: 10.5281/zenodo.4455036.

Metropolis, N. and Ulam, S. The Monte Carlo Method. *Journal of the American Statistical Association*, 44(247):335–341, Sept. 1949. doi: 10.1080/01621459.1949.10483310.

Mueller, C., Frankel, A., Petersen, M., and Leyendecker, E. Documentation for 2003 USGS Seismic Hazard Maps for Puerto Rico and the U.S. Virgin Islands. Open-File Report 03-379, USGS, 2003. https://pubsdata.usgs.gov/pubs/of/2003/ofr-03-379/ofr-03-379.html.

van den Ende, M., Bruhat, L., Funning, G., Gabriel, A.-A., Hicks, S., Jolivet, R., Lecocq, T., and Rowe, C. Creating a Diamond Open Access community journal for Seismology and Earthquake Science. Eartharxiv preprint, July 2021. doi: 10.31223/X5304V.