

# Your article title goes here

**Name Surname** \*, **Name Secondauthor** , **Name Thirdauthor**  <sup>1,3</sup>

<sup>1</sup>Department of Earth Sciences, A University, City, Country, <sup>2</sup>School of Earth Sciences, Another University, City, Country, <sup>3</sup>Center for Studying Cool Things, University of X, City, Country

Author contributions: *Conceptualization*: Name Firstauthor, Name Thirdauthor. *Formal Analysis*: Name Firstauthor, Name Secondauthor. *Writing - Original draft*: Name Firstauthor.

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

## 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.

### 1.1 Bibliographic citations

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.

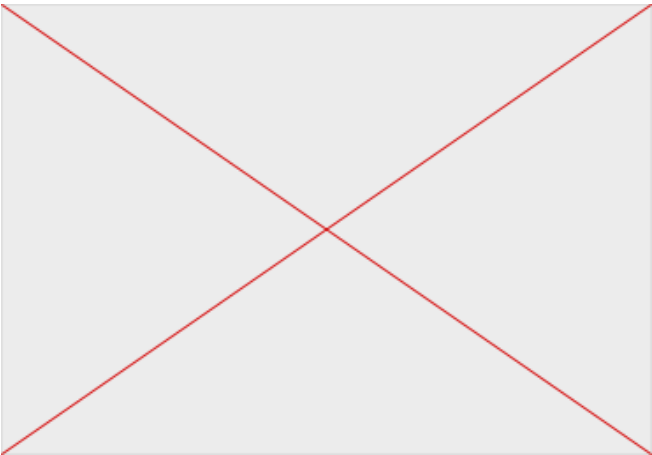
### 1.2 Headings

#### 1.2.1 Subsubsection

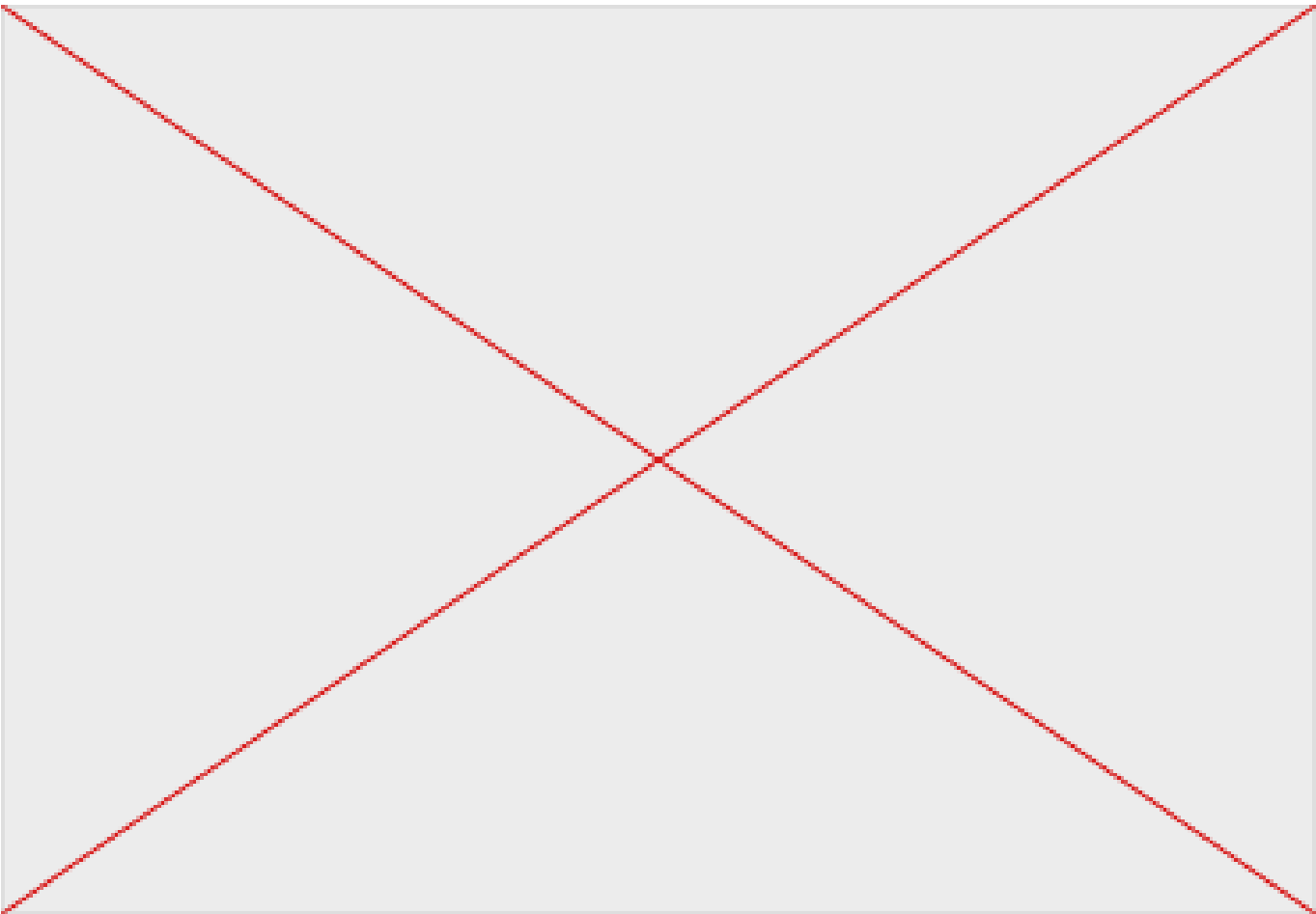
Three levels of section headings is the maximum<sup>1</sup> - no subsubsubsections, please! Note that footnotes are permitted, as in the previous sentence, though we encourage authors to really think about whether a footnote is necessary or if the information it contains could be included in the main 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 one-column figure, Figure 2 is a full-width figure.



**Figure 1** This is an example of a figure caption.



**Figure 2** This is a caption on wider figure.

Tables can also be included, with captions.

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

**Table 1** Caption

Tab. 1 (use Tabs if several tables) is an example of a relatively simple table. We strongly encourage authors to

\*Corresponding author: firstauthor@university.edu  
<sup>1</sup>Seriously, the maximum

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:

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

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

## 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()
```

## 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

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.