

# Template for preparing your research report submission to PNAS using RMarkdown

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**Please provide an abstract of no more than 250 words in a single paragraph. Abstracts should explain to the general reader the major contributions of the article. References in the abstract must be cited in full within the abstract itself and cited in the text.**

## Problème (1)

- pas/mauvaise révision par les pairs
- journalists non compétent ou politicien qui allait puissé des résultats dans les prépublication
- trop vite
- normalement: super long
- serveur de prépublication:
- partager l'info vite et efficacement et augmenter la collaboration international
- bcp de révision: erreur corriger plus rapidement

## Problème (2)

## problème (3)

This PNAS journal template is provided to help you write your work in the correct journal format. Instructions for use are provided below.

Note: please start your introduction without including the word “Introduction” as a section heading (except for math articles in the Physical Sciences section); this heading is implied in the first paragraphs.

## Guide to using this template

Please note that whilst this template provides a preview of the typeset manuscript for submission, to help in this preparation, it will not necessarily be the final publication layout. For more detailed information please see the [PNAS Information for Authors](#).

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**Format.** Many authors find it useful to organize their manuscripts with the following order of sections; Title, Author Affiliation, Keywords, Abstract, Significance Statement, Results, Discussion, Materials and methods, Acknowledgments, and References. Other orders and headings are permitted.

**Manuscript Length.** PNAS generally uses a two-column format averaging 67 characters, including spaces, per line. The maximum length of a Direct Submission research article is six pages and a PNAS PLUS research article is ten pages including all text, spaces, and the number of characters displaced by figures, tables, and equations. When submitting tables, figures, and/or equations in addition to text, keep the text for your manuscript under 39,000 characters (including spaces) for Direct Submissions and 72,000 characters (including spaces) for PNAS PLUS.

**References.** References should be cited in numerical order as they appear in text; this will be done automatically via bibtext, e.g. (belkin2002using?) and (berard1994embedding?, coifman2005geometric?). All references, including for the SI, should be included in the main manuscript file. References appearing in both sections should not be duplicated. SI references included in tables should be included with the main reference section.

**Data Archival.** PNAS must be able to archive the data essential to a published article. Where such archiving is not possible, deposition of data in public databases, such as GenBank, ArrayExpress, Protein Data Bank, Unidata, and others outlined in the Information for Authors, is acceptable.

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**Digital Figures.** Only TIFF, EPS, and high-resolution PDF for Mac or PC are allowed for figures that will appear in the main text, and images must be final size. Authors may submit U3D or PRC files for 3D images; these must be accompanied by 2D representations in TIFF, EPS, or high-resolution PDF format. Color images must be in RGB (red, green, blue) mode. Include the font files for any text.

Figures and Tables should be labelled and referenced in the standard way using the `\label{}` and `\ref{}` commands.

Figure

*fig : frog*

## Significance Statement



**Fig. 1.** Placeholder image of a frog with a long example caption to show justification setting.

shows an example of how to insert a column-wide figure. To insert a figure wider than one column, please use the `\begin{figure*}...\end{figure*}` environment. Figures wider than one column should be sized to 11.4 cm or 17.8 cm wide.

**Single column equations.** Authors may use 1- or 2-column equations in their article, according to their preference.

To allow an equation to span both columns, options are to use the `\begin{figure*}...\end{figure*}` environment mentioned above for figures, or to use the `\begin{widetext}...\end{widetext}` environment as shown in equation

*eqn : example*

below.

Please note that this option may run into problems with floats and footnotes, as mentioned in the [cuted package documentation](#). In the case of problems with footnotes, it may be possible to correct the situation using commands `\footnotemark` and `\footnotetext`.

$$\begin{aligned}(x+y)^3 &= (x+y)(x+y)^2 \\ &= (x+y)(x^2+2xy+y^2) \\ &= x^3+3x^2y+3xy^2+x^3.\end{aligned}$$

**Supporting Information (SI).** The main text of the paper must stand on its own without the SI. Refer to SI in the manuscript at an appropriate point in the text. Number supporting figures and tables starting with S1, S2, etc. Authors are limited to no more than 10 SI files, not including movie files. Authors who place detailed materials and methods in SI must provide sufficient detail in the main text methods to enable a reader to follow the logic of the procedures and results and also must reference the online methods. If a paper is fundamentally a study of a new method or technique, then the methods must be described completely in the main text. Because PNAS edits SI and composes it into a single PDF, authors must provide the following file formats only.

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## ACKNOWLEDGMENTS.

1. Agence Science-Press (2021) Des études trop rapide en temps de COVID.
2. Baker M (2016) 1,500 scientists lift the lid on reproducibility. *Nature* 533(7604):452–454.
3. Mesirov JP (2010) Accessible reproducible research. *Science* 327(5964):415–416.