UPDATE

Template for GigaByte Journal Update Submissions

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Abstract

The abstract of the manuscript should cover a presentation of the interest or relevance of these data for the broader community; a very brief preview of the data type(s) produced, the methods used, and information relevant to data validation. As well as the potential uses of these data and implications for the field. Please minimize the use of abbreviations and do not cite references in the abstract. As this article type is focussed on describing a dataset, conclusions or interpretive insights are not required.

Classifications: Classification 1; Classifications 2; Classifications 3 (Minimum three key words from the GigaScience/GigaDB Classifications List)

Introduction to this Template

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—Epigraph source name

This is the LaTeX template for GigaByte journal manuscript submissions. **Please note that whilst this template provides a preview of the typeset manuscript for submission, it will not necessarily be the final publication layout.**

There are important commands in the preamble that you will need to modify for your own manuscript. If you are using this template on Overleaf, please switch the editor to Source code mode to view them; or if you prefer to stay in the Rich Text view, click on the title in the Rich Text view to display the preamble code.

Use the `\journal{...}` command in the preamble so that the correct journal name, logo and colours are loaded automatically. **Only certain journals and options are supported at this time;** check with your journal's editorial office if your journal is supported.

Alternatively you can re-define `\jname`, `\jlogo` and the `jcolour` explicitly, though check with your journal's editorial office to confirm that this is appropriate.

Specify your manuscript's category with the `\papercat{...}` command in the preamble.

See the sample code in the preamble for a sample of how author and affiliation information can be specified.

Use later sections starting with 'Data Description' on page 3 to write your manuscript. The remainder of this current section will provide some sample LaTeX code for various elements you may want to include in your manuscript.

Table 1. An example table.

Item	Quantity	Notes
Widgets	42	Over-supplied[*]
Gadgets	13	Under-supplied

This is a table note.
[*]Another note.

Sectional Headings

You can use \section{...}, \subsection{...} commands to add more sections and subsections to your manuscript. Further sectional levels are provided by \subsubsection, \paragraph and \subparagraph.

Citations and References

Use the num-refs document class option for numerical citations, and alph-refs option for author-year citations. Use the \citep command for parenthetical citations, and \citet command for text citations (when using alpha-refs). This is a citation: [1] and here are two more: [2, 3].

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Figures and Tables

Figures and tables can be added with the usual figure and table environments, e.g. Figure 1 and Table 1. Use figure* and table* if you need a two-column wide figure or table, as in Figure 2 and Table 2.

If you have a very wide table or figure, you can use sidewaystable or sidewaysfigure, as in Table 3: this will be rotated sideways and occupy a *single column* on its own.

If your table or figure is both wide and tall (so it wouldn't fit well in a single column with sidewaystable or figure), you can use table or figure inside a landscape environment for a full-page landscaped alternative. A page break will be inserted *immediately before and after* the landscape environment (Table 4), so you'll need to carefully position it in a suitable location in your manuscript.

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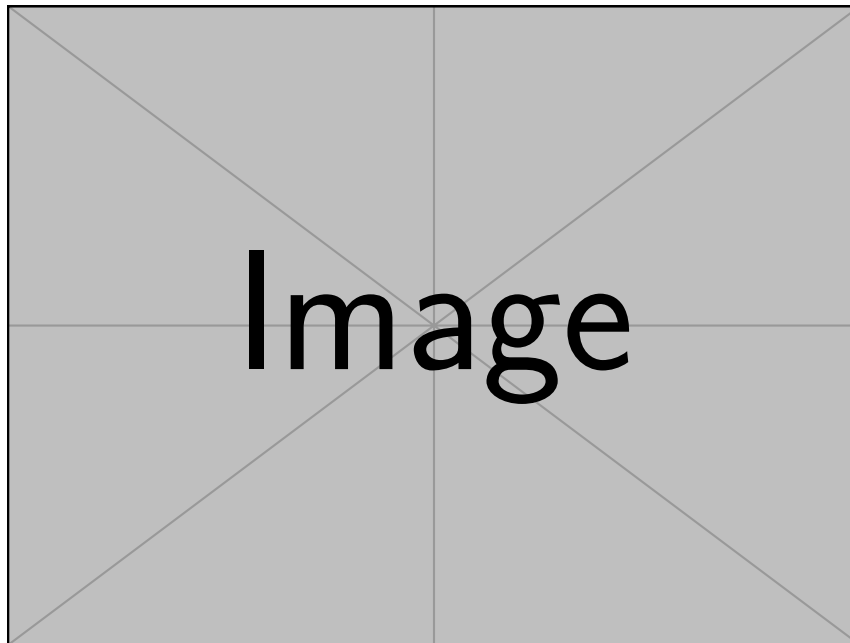
Figure 1. An example figure

Some Mathematics Sample

Let $X_1, X_2, \ldots, X_n$ be a sequence of independent and identically distributed random variables with $E[X_i] = \mu$ and $Var[X_i] = \sigma^2 < \infty$, and let

$$S_n = \frac{X_1 + X_2 + \cdots + X_n}{n} = \frac{1}{n} \sum_i^n X_i \tag{1}$$

denote their mean. Then as n approaches infinity, the random variables $\sqrt{n}(S_n - \mu)$ converge in distribution to a normal $\mathcal{N}(0, \sigma^2)$.

Data Description

A statement providing background and purpose for collection of these data should be presented for readers without specialist knowledge in that area. A brief description of the protocol for data collection, data curation and quality control, as well as potential uses should be included, as well as outlining how the data can be accessed if it is not deposited in our repository.

Context

Please state what motivated you to collect this data, explaining why these data are of value to the scientific community, and giving some background on the potential interest of this data. Relating this work to previous studies and any related public datasets can help in understanding its utility and potential for reuse.

Methods

This section should outline experimental design and can potentially be further broken up into subheadings a) Sampling strategy and b) Steps. Please include details on any specimen sampled, including any other species, strain or cell line identifiers, and any voucher or biobank numbers for where the specimen is stored. And a brief description of which conditions and parameters were used for data production and processing (normalization, feature extraction, etc.). Related methods can also be grouped under corresponding subheadings. This section should provide enough detail to allow other researchers to interpret and repeat the study. In addition to including the design of the study, it needs to provide detail on the type of reagents, instrumentation and kits used (including any identifiers such as RRIDs), and follow best practice for reporting guidelines and data standards (including those listed in our FAIRsharing page).

Please include and cite the URLs (or DOIs if snapshots have been archived in a repository such as Zenodo or GigaDB) to any publically available bioinformatics tools that are used in the production of the data, including the exact version used. If you are using new bioinformatics tools that you have developed for production or processing of the data described here, this may be suitable for submission as a Technical Report. We strongly encourage the use of workflow management systems such as Galaxy and my Experiment, and container systems such as Docker, to save the details of the methods to encourage reproducibility as well as conciseness. Our GigaDB repository and GigaGalaxy server can also be used to archive data, workflows and snapshots of the code with an accompanying DOI. We also offer integration with Code Ocean, a cloud-based computational reproducibility platform.
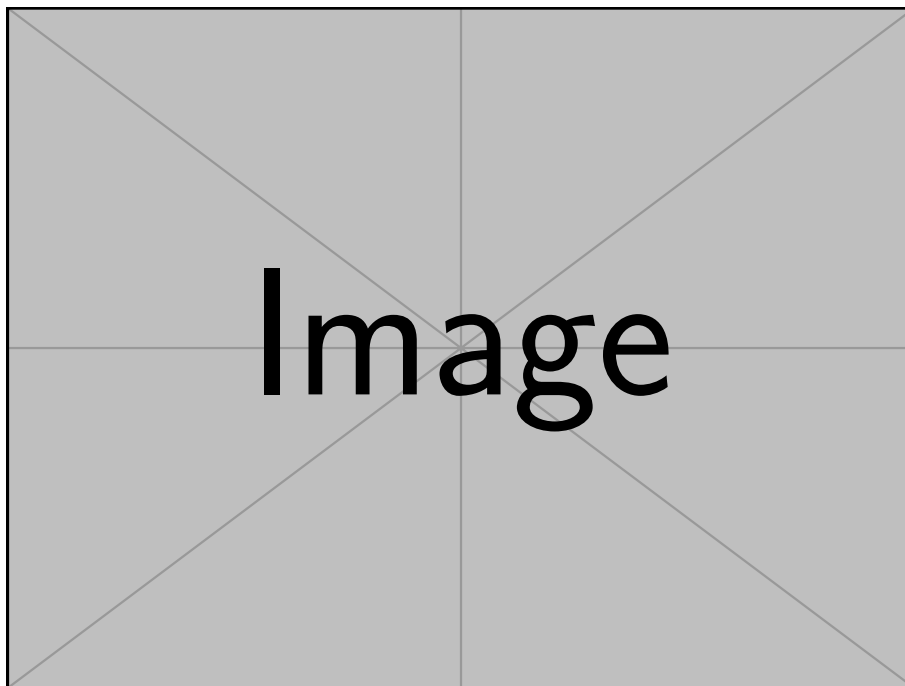
Figure 2. An example wide figure. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Table 2. Automobile land speed records (GR 5-10)

Speed (mph)	Driver	Car	Engine	Date	Extra comments
407.447	Craig Breedlove	Spirit of America	GE J47	8/5/63	(Just to demo a full-width table with auto-wrapping long lines)
413.199	Tom Green	Wingfoot Express	WE J46	10/2/64	
434.22	Art Arfons	Green Monster	GE J79	10/5/64	
468.719	Craig Breedlove	Spirit of America	GE J79	10/13/64	
526.277	Craig Breedlove	Spirit of America	GE J79	10/15/65	
536.712	Art Arfons	Green Monster	GE J79	10/27/65	
555.127	Craig Breedlove	Spirit of America, Sonic 1	GE J79	11/2/65	
576.553	Art Arfons	Green Monster	GE J79	11/7/65	
600.601	Craig Breedlove	Spirit of America, Sonic 1	GE J79	11/15/65	
622.407	Gary Gabelich	Blue Flame	Rocket	10/23/70	
633.468	Richard Noble	Thrust 2	RR RG 146	10/4/83	
763.035	Andy Green	Thrust SSC	RR Spey	10/15/97	

Source is from this website: https://www.sedl.org/afterschool/toolkits/science/pdf/ast_sci_data_tables_sample.pdf

Data Validation and Quality Control

Experiments supporting and demonstrating the technical quality of the dataset should be included in the manuscript, alongside any quality metrics. Data Releases can be published alongside traditional Research Articles, and any previous or in-press research using the data should be highlighted, as it will aid validation and demonstrate use.

Reuse Potential

Instructions and suggestions of downstream applications that may help other researchers with reuse of the data are required. This section can also promote discussion on possible ways the data presented might be used in or have a relationship with other areas of research that may not be directly apparent in the work.

Availability of source code and requirements (optional, if code is present)

Lists the following:

- Project name: e.g. My bioinformatics project
- Project home page: e.g. http://sourceforge.net/projects/mged
- Operating system(s): e.g. Platform independent

Table 3. Automobile land speed records (GR 5–10). This is the same table as before, but rotated sideways.

Speed (mph)	Driver	Car	Engine	Date	Extra comments
407.447	Craig Breedlove	Spirit of America	GE J47	8/5/63	(Just to demo a full-width table with auto-wrapping long lines)
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Source is from this website: https://www.sedl.org/afterschool/toolkits/science/pdf/ast_sci_data_tables_sample.pdf

- Programming language: e.g. Java
- Other requirements: e.g. Java 1.3.1 or higher, Tomcat 4.0 or higher
- License: e.g. GNU GPL, FreeBSD etc. Any restrictions to use by non-academics: e.g. licence needed

This needs to be under an Open Source Initiative approved license where practicable compiled running software is made available. If the code is not hosted in a repository the *GigaScience* GitHub repository is also available for this purpose.

Availability of supporting data and materials

GigaByte requires authors to deposit the data set(s) supporting the results reported in submitted manuscripts in a publicly-accessible data repository such as *Giga*DB (see *Giga*DB database terms of use for complete details). This section should be included when supporting data are available and must include the name of the repository and the permanent identifier or accession number and persistent hyperlinks for the data sets (if appropriate). The following format is recommended:

"The data set(s) supporting the results of this article is(are) available in the [repository name] repository, [cite unique persistent identifier]."

Following the Joint Declaration of Data Citation Principles, where appropriate we ask that the data sets be cited where it is first mentioned in the manuscript, and included in the reference list. If a DOI has been issued to a dataset please always cite it using the DOI rather than the less stable URL the DOI resolves to (e.g. `http://dx.doi.org/10.5524/100044` rather than `http://gigadb.org/dataset/100044`). For more see:

Data Citation Synthesis Group: Joint Declaration of Data Citation Principles. Martone M. (ed.) San Diego CA: FORCE11; 2014 [`https://www.force11.org/datacitation`]

A list of available scientific research data repositories can be found in res3data and BioSharing.

Declarations

List of abbreviations

If abbreviations are used in the text they should be defined in the text at first use, and a list of abbreviations should be provided in alphabetical order.

Ethical Approval (optional)

Manuscripts reporting studies involving human participants, human data or human tissue must:

- include a statement on ethics approval and consent (even where the need for approval was waived)
- include the name of the ethics committee that approved the study and the committee's reference number if appropriate

Studies involving animals must include a statement on ethics approval and have been treated in a humane manner in line with the ARRIVE guidelines.

If your manuscript does not report on or involve the use of any animal or human data or tissue, this section is not applicable to your submission. Please state "Not applicable" in this section.

Consent for publication

If your manuscript contains any individual person's data in any form, consent to publish must be obtained from that person, or in the case of children, their parent or legal guardian. All presentations of case reports must have consent to publish. You can use your institutional consent form. You should not send the form to us on submission, but we may request to see a copy at any stage (including after publication). Please also confirm you have followed national guidelines on data collection and release in the place the research was carried out, for example confirming you have Ministry of Science and Technology (MOST) approval in China.

If your manuscript does not contain any individual person's data, please state "Not applicable" in this section.

Competing Interests

All financial and non-financial competing interests must be declared in this section. Where an author gives no competing interests, the listing will read 'The author(s) declare that they have no competing interests'. If you are unsure whether you or any of your co-authors have a competing interest please contact the editorial office.

Funding

All sources of funding for the research reported should be declared. The role of the funding body in the design of the study and collection, analysis, and interpretation of data and in writing the manuscript should be declared. Please use FundRef to report funding sources and include the award/grant number, and the name of the Principal Investigator of the grant.

Author's Contributions

The individual contributions of authors to the manuscript should be specified in this section. Guidance and criteria for authorship can be found in our editorial. We would recommend you follow some kind of standardised taxonomy like the CASRAI CRediT (Contributor Roles Taxonomy).

Acknowledgements

Please acknowledge anyone who contributed towards the article who does not meet the criteria for authorship including anyone who provided professional writing services or materials.

Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgements section. If you do not have anyone to acknowledge, please write "Not applicable" in this section.

See our editorial for a more explanation of acknowledgements and authorship criteria.

References

1. Fan J, Peng H. Nonconcave penalized likelihood with a diverging number of parameters. Ann Statist 2004;32:928–61.
2. Cox DR. Regression models and life tables (with Discussion). J R Statist Soc B 1972;34:187–220.
3. Heard NA, Holmes CC, Stephens DA. A Quantitative Study of Gene Regulation Involved in the Immune Response of Anopheline Mosquitoes: An Application of Bayesian Hierarchical Clustering of Curves. J Am Statist Assoc 2006;101:18–29.

Table 4. Automobile land speed records (GR 5–10). This is again the same table as before, but on a landscaped page. **Note that a hard page break is inserted immediately before and after** `landscape`, so you'll need to carefully position such an environment at a suitable location in your manuscript!

Speed (mph)	Driver	Car	Engine	Date	Extra comments
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