

# This is the title [Article v1.3]

Firstname Middlename Surname<sup>1\*</sup>, Firstname Middlename  
 Familyname<sup>1,2†§</sup>, Firstname Initials Surname<sup>2+¶</sup>, Firstname  
 Surname<sup>2\*</sup>

<sup>1</sup>Institution 1; <sup>2</sup>Institution 2

*This LiveCoMS document is maintained online on GitHub at <https://github.com/myaccount/homegithubrepository>; to provide feedback, suggestions, or help improve it, please visit the GitHub repository and participate via the issue tracker.*

*This version dated October 14, 2021*

**Abstract** Please provide an abstract of no more than 250 words. Your abstract should explain the main contributions of your article, and should not contain any material that is not included in the main text. Please note that your abstract, plus the authorship material following it, must not extend beyond the title page or modifications to the LaTeX class will likely be needed.

**\*For correspondence:**

[email1@example.com](mailto:email1@example.com) (FMS); [email2@example.com](mailto:email2@example.com) (FS)

<sup>†</sup>These authors contributed equally to this work

<sup>‡</sup>These authors also contributed equally to this work

**Present address:** <sup>§</sup>Department, Institute, Country; <sup>¶</sup>Department, Institute, Country

## 1 Introduction (Level 1 heading)

Your introduction goes here! Some examples of commonly used commands and features are listed below, to help you get started.

Here's a second paragraph to test paragraph indents. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu

tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

## 2 Results (Level 1 heading)

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi.

## FIRST LIST

**You can easily make full width checklists that take a whole page**

- ☐ First thing let's do an item which breaks across lines to see how that looks
- ☐ Also remember
- ☐ And finally

## SECOND LIST

**This is some further description.**

- ☐ First thing
- ☐ Also remember
- ☐ And finally

## THIRD LIST

**This is some further description.**

- ☐ First thing
- ☐ Also remember
- ☐ And finally

## FOURTH LIST

**This is some further description.**

- ☐ First thing
- ☐ Also remember
- ☐ And finally

## FIFTH LIST

**Full-width checklists on less than a single page are also possible**

- ☐ First thing let's do an item which breaks across lines to see how that looks
- ☐ Also remember
- ☐ And finally

## SIXTH LIST

**This is some further description.**

- ☐ First thing
- ☐ Also remember
- ☐ And finally

## SEVENTH LIST

**Single-column checklists are also straightforward by removing the asterisk**

- ☐ First thing let's do an item which breaks across lines to see how that looks
- ☐ Also remember
- ☐ And finally

## EIGHTH LIST

**This is some further description.**

- ☐ First thing
- ☐ Also remember
- ☐ And finally

Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

## 2.1 Level 2 Heading

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna.

**Table 1.** Automobile Land Speed Records (GR 5-10).

Speed (mph)	Driver	Car	Engine	Date
407.447	Craig Breedlove	Spirit of America	GE J47	8/5/63
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: [https://www.sedl.org/afterschool/toolkits/science/pdf/ast\\_sci\\_data\\_tables\\_sample.pdf](https://www.sedl.org/afterschool/toolkits/science/pdf/ast_sci_data_tables_sample.pdf)

**Table 1-source data 1.** This is a description of a data source.

Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

### 2.1.1 Level 3 Heading

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

### Level 4 Heading

Sed commodo posuere pede. Mauris ut est. Ut quis purus. Sed ac odio. Sed vehicula hendrerit sem. Duis non odio. Morbi ut dui. Sed accumsan risus eget odio. In hac habitasse platea dictumst. Pellentesque non elit.

Fusce sed justo eu urna porta tincidunt. Mauris felis odio, sollicitudin sed, volutpat a, ornare ac, erat. Morbi quis dolor. Donec pellentesque, erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus.

## 3 Discussion

Morbi luctus, wisi viverra faucibus pretium, nibh est placerat odio, nec commodo wisi enim eget quam. Quisque libero justo, consectetur a, feugiat vitae, porttitor eu, libero. Suspendisse sed mauris vitae elit sollicitudin malesuada. Maecenas ultricies eros sit amet ante. Ut venenatis velit. Maecenas sed mi eget dui varius euismod. Phasellus aliquet volutpat odio. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Pellentesque sit amet pede ac sem eleifend consectetur. Nullam elementum, urna vel imperdiet sodales, elit ipsum pharetra ligula, ac pretium ante justo a nulla. Curabitur tristique arcu eu metus. Vestibulum lectus. Proin mauris. Proin eu nunc eu urna hendrerit faucibus. Aliquam auctor, pede consequat laoreet varius, eros tellus scelerisque quam, pellentesque hendrerit ipsum dolor sed augue.

Nulla nec lacus.

## 4 Methods and Materials

Guidelines can be included for standard research article sections, such as this one.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

## 5 Some $\text{\LaTeX}$ Examples

Use section and subsection commands to organize your document.  $\text{\LaTeX}$  handles all the formatting and numbering automatically. Use `ref` and `label` commands for cross-references.

### 5.1 Figures and Tables

Use the `table` and `tabular` commands for basic tables — see [Table 1](#), for example.

To include an image (JPEG, PNG or PDF) in your document, use the `\includegraphics` command as in the code for [Figure 2](#).

If you use the following prefixes for your `\label`:

**Figures** `fig:`, e.g. `\label{fig:view}`

**Tables** `tab:`, e.g. `\label{tab:example}`

**Equations** `eq:`, e.g. `\label{eq:CLT}`

**Boxes** `box:`, e.g. `\label{box:simple}`

you can then use the convenience commands `\FIG{view}`, `\TABLE{example}`, `\EQ{CLT}` and `\BOX{simple}` without the label prefixes, to generate cross-references [Figure 2](#), [Table 1](#), [Equation 1](#) and [Box 1](#). Alternatively, use `\autoref` with the full label, e.g. [Appendix A](#) (although this may not work correctly for figures and

tables in the appendices or boxes nor supplements at present).

Really wide figures or tables, that take up the entire text width: use `\begin{figure*}...\end{figure*}` as in [Figure 1](#). And sometimes you may want to use feature boxes like [Box 1](#).

### 5.2 Algorithms and Pseudocode

The `algpseudocode` and `algorithms` packages is loaded by the document class. [Algorithm 1](#) was taken directly from the package documentation. (Please do not load `algorithm2e`; it's not compatible with `algpseudocode` nor `algorithms`!)

**Algorithm 1.** Euclid's algorithm

---

```

procedure Euclid(a, b)           ▷ The g.c.d. of a and b
  r ← a mod b
  while r ≠ 0 do                 ▷ We have the answer if r is 0
    a ← b
    b ← r
    r ← a mod b
  end while
  return b                       ▷ The gcd is b
end procedure

```

---

### 5.3 Citations

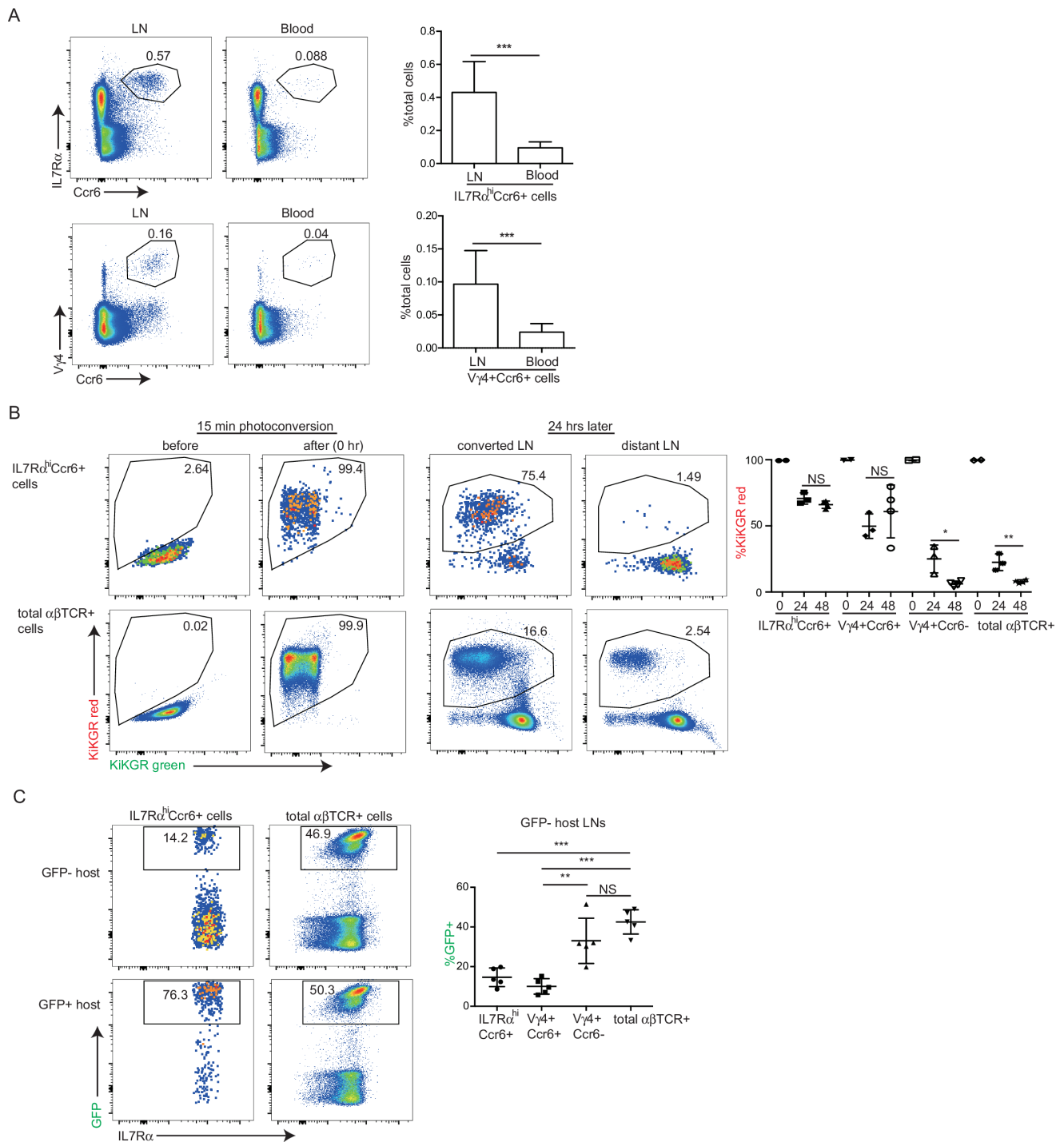
LaTeX formats citations and references automatically using the bibliography records in your `.bib` file, which you can edit via the project menu. Use the `\cite` command for an inline citation, like `[?]`, and the `\citet` command for a citation in parentheses `[?]`. The LaTeX template uses a slightly-modified Vancouver bibliography style.

### 5.4 Mathematics

LaTeX is great at typesetting mathematics. Let  $X_1, X_2, \dots, X_n$  be a sequence of independent and identically distributed random variables with  $E[X_i] = \mu$  and  $\text{Var}[X_i] = \sigma^2 < \infty$ , and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_i^n X_i \quad (1)$$

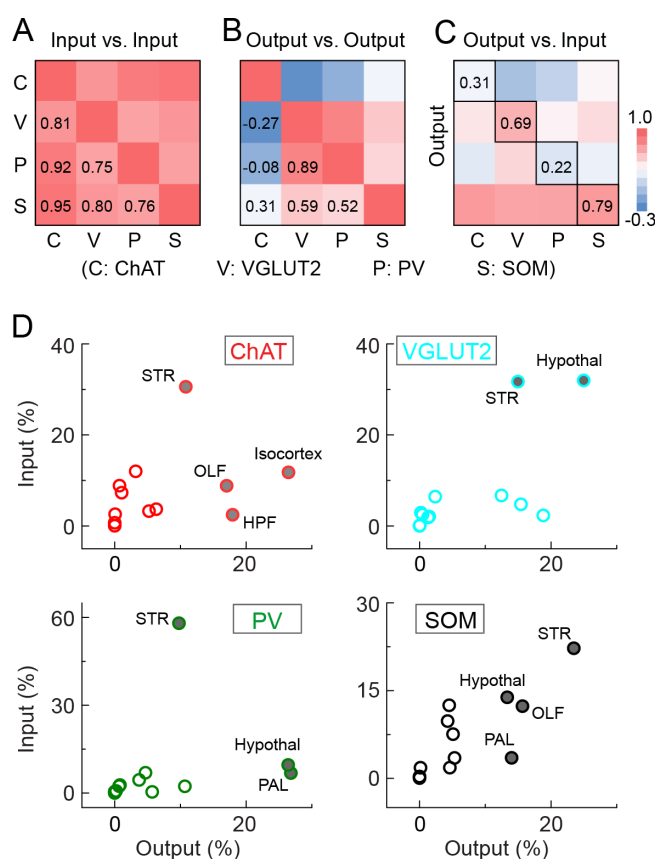
denote their mean. Then as  $n$  approaches infinity, the random variables  $\sqrt{n}(S_n - \mu)$  converge in distribution to a normal  $\mathcal{N}(0, \sigma^2)$ .



**Figure 1.** A very wide figure that takes up the entire page, including the gutter space.

**Figure 1-Figure supplement 1.** There is no limit on the number of Figure Supplements for any one primary figure. Each figure supplement should be clearly labeled, Figure 1-Figure Supplement 1, Figure 1-Figure Supplement 2, Figure 2-Figure Supplement 1 and so on, and have a short title (and optional legend). Figure Supplements should be referred to in the legend of the associated primary figure, and should also be listed at the end of the article text file.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.



**Figure 2.** A column-width example.

**Figure 2-Figure supplement 1.** Shorter caption for main text.

**Figure 2-Figure supplement 2.** This is another supplementary figure.

**Figure 2-source data 1.** This is a description of a data source.

**Figure 2-source data 2.** This is another description of a data source.

## 5.5 Other Chemistry Niceties

You can use commands from the `mhchem` and `siunitx` packages. For example:  $\text{C}_{32}\text{H}_{64}\text{NO}_7\text{S}$ ;  $5\text{ }\mu\text{m}$ ;  $30\text{ }^\circ\text{C}$ ;  $5 \times 10^{-17}\text{ M}$

## 5.6 Lists

You can make lists with automatic numbering ...

1. Like this,
2. and like this.

...or bullet points ...

- Like this,
- and like this.

...or with words and descriptions ...

**Word** Definition

**Concept** Explanation

**Idea** Text

Some filler text, because empty templates look really poor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

## Author Contributions

FMS wrote sections X and Z. RMS contributed to the writing of sections Y and W. TMP contributed to the writing of sections Y and W. ITP contributed to all sections. ADP wrote sections W and Y, performed and analyzed the experiments in Z, made



figures 4-6, and edited the whole manuscript as well as standardizing table formatting. For a more detailed description of contributions, see the GitHub issue tracking and changelog at <https://github.com/myaccount/homegithubrepository>.

## Other Contributions

EGP provided important insights on the challenges faced by nonequilibrium simulations. FTP provided several key citations on energy conservation. For a more detailed description of contributions, see the GitHub issue tracking and changelog at <https://github.com/myaccount/homegithubrepository>.

## Potentially Conflicting Interests

EGP has a 40% equity stake in the ReallyGoodSimulations company, which sells molecular dynamics code. DMD is a developer of the package EvenBetterMD, which is recommended in this article.

## Funding Information

FMS acknowledges the support of NSF grant CHE-1111111.

## Author Information

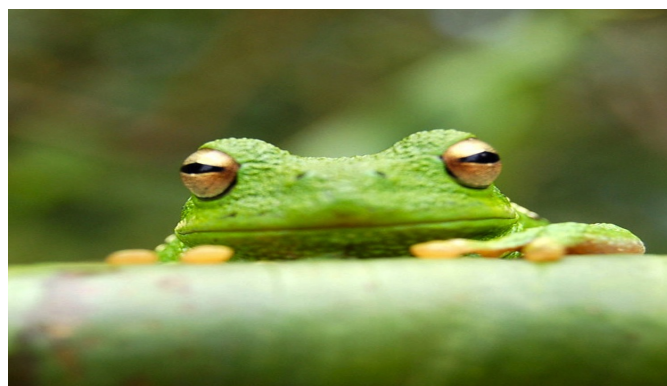
### ORCID:

Author 1 name: [AAAA-BBBB-CCCC-DDDD](#)

Author 2 name: [EEEE-FFFF-GGGG-HHHH](#)

## Appendix A Firstly

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu



**Appendix A Figure 1.** This is a figure in the appendix

tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

## Appendix B Secondly

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

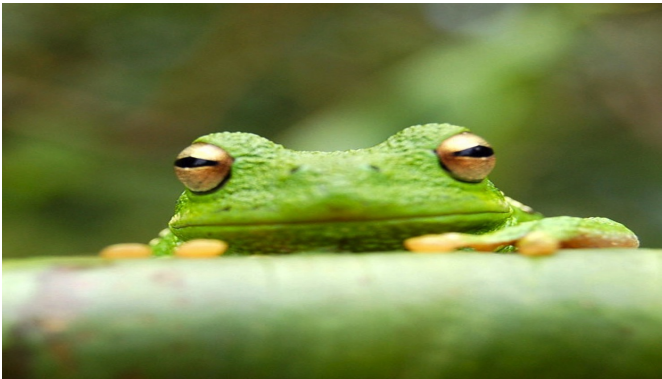
Suspendisse vel felis. Ut lorem lorem, interdum eu, tincidunt sit amet, laoreet vitae, arcu. Aenean faucibus pede eu ante. Praesent enim elit, rutrum at, molestie non, nonummy vel, nisl. Ut lectus eros, malesuada sit amet, fermentum eu, sodales cursus, magna. Donec eu purus. Quisque vehicula, urna sed ultricies auctor, pede lorem egestas dui, et convallis elit erat sed nulla. Donec luctus. Curabitur et nunc. Aliquam dolor odio, commodo pretium, ultricies non, pharetra in, velit.



Integer arcu est, nonummy in, fermentum faucibus, egestas vel, odio.

Sed commodo posuere pede. Mauris ut est. Ut quis purus. Sed ac odio. Sed vehicula hendrerit sem. Duis non odio. Morbi ut dui. Sed accumsan risus eget odio. In hac habitasse platea dictumst. Pellentesque non elit. Fusce sed justo eu urna porta tincidunt. Mauris felis odio, sollicitudin sed, volutpat a, ornare ac, erat. Morbi quis dolor. Donec pellentesque, erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus.

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Donec odio elit, dictum in, hendrerit sit amet, egestas sed, leo. Praesent feugiat sapien aliquet odio. Integer vitae justo. Aliquam vestibulum fringilla lorem. Sed neque lectus, consectetur at, consectetur sed, eleifend ac, lectus. Nulla facilisi. Pellentesque eget lectus. Proin eu metus. Sed porttitor. In hac habitasse platea dictumst. Suspendisse eu lectus. Ut mi mi, lacinia sit amet, placerat et, mollis vitae, dui. Sed ante tellus, tristique ut, iaculis eu, malesuada ac, dui. Mauris nibh leo, facilisis non, adipiscing quis, ultrices a, dui.



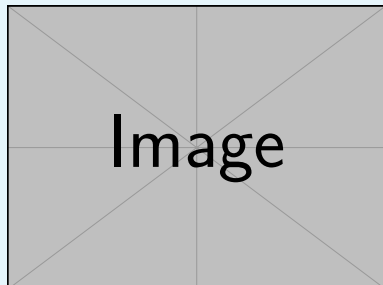
**Appendix B Figure 1.** This is a figure in the appendix



**Appendix B Figure 2.** This is a figure in the appendix

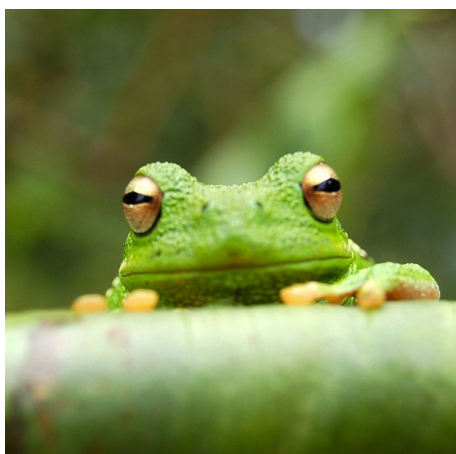
## Box 1. This is an example feature box

This is a feature box. It floats!

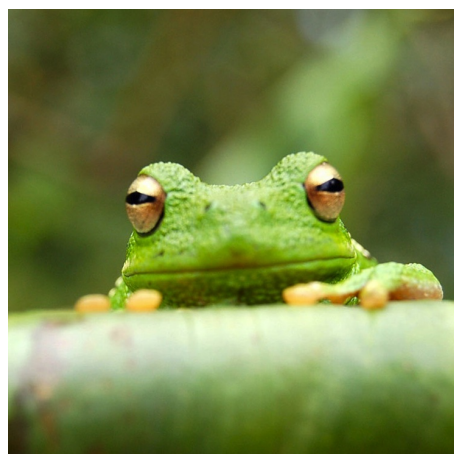


**Box 1 Figure 1.** ‘Figure’ and ‘table’ captions in feature boxes should be entered with `\featurefig` and `\featuretable`. They’re not really floats.

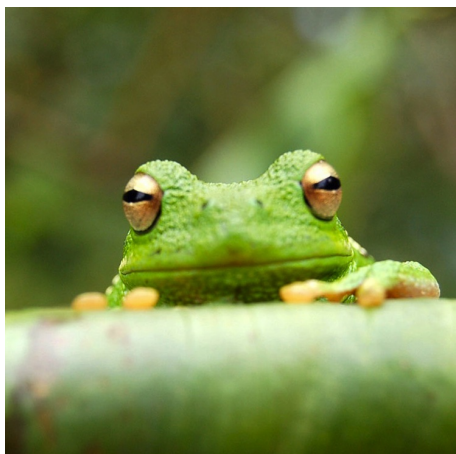
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.



**Figure 1–Figure supplement 1.** There is no limit on the number of Figure Supplements for any one primary figure. Each figure supplement should be clearly labeled, Figure 1–Figure Supplement 1, Figure 1–Figure Supplement 2, Figure 2–Figure Supplement 1 and so on, and have a short title (and optional legend). Figure Supplements should be referred to in the legend of the associated primary figure, and should also be listed at the end of the article text file.



**Figure 2–Figure supplement 2.** This is another supplementary figure.



**Figure 2–Figure supplement 1.** This is a supplementary figure's full caption, which will be used at the end of the manuscript.