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How I rose from the dead in my spare time and so can you

ANZJS Quarto Template

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Summary

This document serves to illustrate some of the main features of the Quarto based on LaTeX document class `anzsauth` which authors are strongly encouraged to use when preparing papers for submission to the *Australian and New Zealand Journal of Statistics*. The importance of clarity of exposition as well as a number of issues that frequently arise in respect of the Journal's standards and conventions are emphasised. The Journal has precise requirements for the format of bibliographic references and citations. It is much easier for authors to conform to these requirements if they use the resources provided by BibTeX and the `anzsj` bibliography style (used as default in this template). Authors are very strongly encouraged to avail themselves of these resources. The use of BibTeX syntax is illustrated. This document emphasises a few of the notational conventions that form an important part of the Journal's stylistic requirements. A great deal more material about these requirements may be found in the document "*ANZJS Style Guide for Authors*" in the file `styleGuide.pdf`.

Key words: anzsauth; bibliographic references; bibtex; citations; document class; notational conventions; style guide

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Prepared using anzsauth.cls *[Version: 2018/01/30 Version 9]*

1. Introduction

This document show how to use the `anzjs` Quarto document so as to be able to produce an article conforming to the Journal's requirements with a minimum of effort. The correponding template can be found at

https://github.com/emitanaka/quarto-anzjs

You are advised to *look carefully* at the source file `template.qmd`, and to spend a little while studying the examples. In particular, read the *comments*.

Papers submitted to the Journal should be *double spaced* and should have their lines *numbered*. This is important in as much as it makes it easier for referees and technical editors to indicate where corrections are required. Double spacing and line numbers are included by default, but you can disable these by setting `double-space` and `line-numbers` to `false` in the `format` field of the front matter.

A primary requirement that the Journal imposes is that papers must be written lucidly and in clear and grammatically correct English. Consequently Section 2 is devoted to issues that arise in respect of good exposition. Other requirements include proper formatting of the title page. This is done *far* more easily if you make use of the resources provided by the `anzsauth` document class than if you attempt to do the formatting "by hand". (See Section 3).

The Journal insists that citations should be formed correctly and in accordance with its conventions. Likewise the list of references must have the correct structure. Again these requirements are *greatly* facilitated if you make use of the resources provided (by means of BibTeX and the `anzsj` bibliography style). These matters are discussed in Section 3.1.

Although this is *not* handled in an automatic manner, it is important to adhere to the Journal's notation conventions. Most of the discussion of notational conventions has been placed in "*ANZJS* Style Guide for Authors" to be found in the file `styleGuide.pdf`.

Some of the more salient points about notation are dealt with in Section 4.3 in the current document (thus overlapping a bit with the style guide). Displayed equations and their numbering are dealt with in Section 4.4. In this section some cogent advice is given about handling arrays of equations. Issues that arise in respect of the inclusion of figures and tables in a paper are discussed in Section 4.5. In Section 5 some remarks are made, and avuncular advice given, about cross referencing. Section 6 presents

the Journal's policy about how appendices should be headed. It also describes the `Appendix` and `uniqueAppendix` environments that are now provided by the `anzsauth` document class and that make it easy for you to make sure that your appendices are headed in the correct manner. Section 7 provides a little bit of advice about preparing and processing the "source files" that underlie the use of LaTeX.

It has been pointed out to me that some authors need some guidance as to what to do with the files `anzsauth.cls` and `anzsj.bst` which come as part of this template.

Various exhortations are reiterated, and some advice about how to make use of `template.qmd` is given in Section 8. In this last Section you are additionally exhorted to create a *tidy* Quarto source file.

2. Clarity of exposition

Obviously the fundamental consideration in respect of assessing a paper's quality is its actual content: its correctness and its value in terms of the advancement of statistical science. Second only to content is the quality of the exposition of the ideas developed in the paper. There is little merit in having high quality content if the paper is written in such a manner that its audience finds it burdensome or even impossible to read.

The Journal has very exacting standards for the quality of English expression in the papers it publishes. Authors are expected to think carefully about the way in which they present material. Ideas should flow in a logical manner. The connections between successive segments of the material should be obvious and easy to follow. Succinct and well-organised examples, kept as uncomplicated as possible, should be provided to clarify intricate concepts. It is *not* acceptable to throw down a jumble of ideas in random order and expect the reader to sort them out. Sufficient explanation should be provided so that any reasonably well-educated statistician who is willing to expend a reasonable amount of effort will be able to understand the paper. It is *not* acceptable for the paper to be comprehensible only to experts in the relevant field of study (or, worse, only to the authors!).

Diligent attention must be paid to grammar. For instance *articles*, definite ("the") and indefinite ("a" or "an") must be used appropriately. It is not acceptable to omit articles where they are required, to insert an article where none is required, or to use a definite article where an indefinite one is required or vice versa. In a similar vein, agreement in "number" between subject and verb must be carefully maintained.

Authors must guard vigilantly against the use of dangling or misplaced modifiers (an unfortunately common type of error).

A typical example of a dangling modifier is "The SE of the correlation increased in size when changing from 4 to 5 quadrature points. This sounds as if the SE changed from 4 to 5 quadrature points! A grammatically correct phrasing might be something like"The SE of the correlation increased in size when the number of quadrature points was changed from 4 to 5." A typical example of a misplaced modifier is "A plot of the residuals from Specktowsky's model shown in Figure 42 indicates the lack of an adequate fit." (The *model* is not shown in Figure 42!) Better would be "A plot, shown in Figure 42, of the residuals from Specktowsky's model indicates the lack of an adequate fit."

Some might argue that grammatical issues like these "don't really matter" and that "the meaning is clear". The meaning is *sometimes* clear, and sometimes becomes possible to discern only after readers have expended considerable effort that has been unnecessarily imposed upon them. Grammatical errors are distracting and confusing. Reading a paper containing grammatical errors is an unpleasant experience, and readers will be discouraged from giving a paper containing such errors the attention that it may otherwise well deserve. Such errors are an unnecessary encumbrance to a paper and can be avoided with a modicum of care and diligence. The Journal insists that such diligence be exercised.

In addition to being written with logical clarity and being free of grammatical errors, manuscripts should be concise and expressed in a direct style. Sentences should be kept short; long sentences are hard to follow and should always be judiciously broken into a number of shorter sentences. Distracting use of unnecessary technical terms should be avoided. Do not abbreviate terms unless they are used repeatedly and the abbreviation is helpful to the reader. Initially use the word in full, and follow it by the abbreviation in parentheses. Thereafter use the abbreviation only. Do not abbreviate author names; for example "Hall and Heyde (HH)" must *not* be used.

Care must be taken with the tense of verbs. Use the past tense when describing something that was done in the past! In particular simulations should be described in the past tense. For example say "We generated 1000 data sets from our parametric model . . . " and not "We generate 1000 data sets . . . ". Use the past tense when referring to results from existing literature. For example, use "Smith & Jones (2007) showed that two plus two equals four", not "Smith & Jones (2007) show that two plus two equals four". Use the present tense in referring to the content of the paper that you

are writing: "In this paper we show that the convergence rate is $o_P(n^{-2/3})$." (Not "we showed that".)

It is the responsibility of the authors to ensure that the use of English language in the manuscript is of a quality suitable for the Journal. If you are not absolutely confident that this requirement is fully satisfied, then have your manuscript checked and *thoroughly* edited by a suitably qualified person. Such a person (whose first language should preferably be English) must have superior English language skills and also be qualified in statistics so as to be able to assess and correct the expression of statistical ideas.

Failure to ensure an adequate standard of English expression may result in the paper's being rejected at the Technical Editing stage *even though* it has previously been assessed by referees and and an associate editor as being acceptable for the Journal. Referees are experts in the particular field addressed by a given paper and they assess that paper for correctness and value of statistical and scientific content. They rarely read the paper carefully in respect of style and exposition, assuming that this is not their responsibility. This is why the Journal explicitly leaves final acceptance to the Technical Editor. The Journal also reserves the right to modify an accepted paper so as to reduce inadequacies of exposition. Any such modifications will be discussed with authors, where feasible.

The Journal's publisher, Wiley, provides a service that can assist authors with English-language editing. To find out about this service you may visit:

http://authorservices.wiley.com/bauthor/english_language.asp

Authors must be aware that there is a *cost* associated with this service, and this cost must be borne by the author(s) of the paper in question.

3. Formatting the title page

Do not try to create the list of authors, their affiliations and their addresses by hand. This is difficult, kludgy and usually leads to results that are not in keeping with the Journal's requirements (which eventually makes more work for the typesetters). Look into the *source* file (`template.qmd`) that was used to produce this document. By looking at the structure of this source file, you should be able to quickly discern the way in which the frontmatter should be used.

Note also that when specifying the abstract, the template produces the correct heading "**Summary**" as required by the Journal.

By learning to use these resources you will in the long run save a *great* deal of time and dramatically reduce the effort that you expend.

3.1. Bibliographic references

3.2. The Journal's citation rules

The Journal (for the sake of consistency; see Section 4.3) imposes a number of strict rules or conventions on the way that citations are formed. Authors *must* follow these conventions. Just as you are advised not to format the title page "by hand", you are strongly encouraged not to produce your citations and your list of references in an ad hoc one-by-one manner. Instead use the (very well designed) tools that are available for the purpose. That is, make use of BibTeX and the `anzsj` bibliography style (see Section 4). If you do so, then (most of) the Journal's required conventions will be followed automatically, thereby saving you a great deal of work and a great many headaches.

If you insist on "doing things your own way", then you must *read carefully* the relevant section of "*ANZJS Style Guide for Authors*" and carefully follow the specifications given.

A rule that BibTeX and the `anzsj` bibliography style will *not* automatically handle for you is that the names of journals appearing in the reference list must *not be* abbreviated. This is a

CHANGE or REVERSAL

of Journal policy from what it has been in the past. (One might be inclined to say that it is an "about face" or retreat, or climb-down.) If you have struggled to dutifully make your references accord with the previous policy that demanded that journal names be abbreviated in accordance with "standard abbreviations" and have arduously combed the web to find out just what these standard abbreviations are ... well, I can only apologise. You are however owed some explanation:

The Editorial Board were unanimously of the opinion that the policy of demanding abbreviated Journal names was probably adopted in the dim distant past to save time for typesetters, and has little function in today's circumstance. The only actual

benefit of this policy is that there is a tiny space saving, and this tiny benefit comes at the cost of unnecessarily adding tedious work to authors' responsibilities. It also has the disadvantage of making our papers less accessible to readers, especially non-statisticians/mathematicians. Some readers may know that *Stat. Neerl.* is *Statistica Neerlandica*, but many will not. The change in policy is one small step toward making statistics research more user-friendly.

Consequently *please* do not abbreviate journal names. At all. Ever. Please *consistently* give journals their full title. Again I apologise (on behalf of the Editorial Board) if this causes you inconvenience and results in your having wasted (substantial) time and effort.

Another rule that cannot be automatically handled is that reference may not be made to a paper "submitted for publication" or to a "personal communication". The essential criterion for inclusion in the reference list is that any such reference must be obtainable by a reader: thus a Technical Report is OK and a paper accepted for publication is OK. You may, if you wish, put into the text a kind of acknowledgement of the form "It was pointed out to me by Fred Nurk (*pers. comm.*) that Bayesian statistics is a load of dingoes' kidneys." However such references must *not* be listed in your bibliography.

Likewise references to unpublished data may be cited in the text (e.g. "I. Poobah, unpublished data, 2000)" but must not appear in the list of references. Otherwise all citations mentioned in the text, tables or figures must be listed in the reference list. A work must *not* appear in the reference list *unless* it is cited in the text.

4. Using BibTeX

Authors are ***STRONGLY*** encouraged to make use of the resources provided by BibTeX in preparing their lists of references and in citing these references in their documents. This is easy to do and helps to make sure that the reference list and citation conventions conform to the Journal's requirements. The Journal has its own "bibliographic style" ("`anzsj`") which is based upon the `natbib` package.

To use BibTeX you need to do the following:

1. Prepare a "bibliographic information" (`*.bib`) file containing appropriately structured information about all of the references that you will cite in your document. Note that this file can contain information about references that you *do not cite* in your document. Only those references cited will appear in the

list of references. This allows you to prepare a single bibliographic information file that can be used for multiple papers with overlapping but not identical reference lists. Of course when submitting a paper you may wish to upload only a cut-down `*.bib` file that contains only the relevant references (rather than a very large bibliographic information file with a plethora of irrelevant entries). The way that the information in your bibliographic information file should be structured is illustrated by the example file `bibliography.bib` that accompanies the document that you are currently reading. Imitating the entries in this example file should allow you to create just about any references you need to use. Note that some rather off-beat entries in `bibliography.bib` are not cited in this paper and hence do not appear in the bibliography. This is in accordance with the rule that *only* literature which is actually cited may appear in the list of references. Four of these entries are referred to in commented-out `nocite` in the front matter at the start of the source file `template.qmd`. If you want to see what bibliography entries these items would produce, just un-comment the `nocite` lines and then compile `template.qmd`. More information about the structure of `*.bib` files may be found in Mittelbach & Goossens (2004). There are also many resources to be found on the web by doing a Google™ search on "`bibtex`".

At the start of your Quarto document, add `bibliography: xxx.bib` where "`xxx.bib`" refers to the name of your bibliographic information file.

4.1. Citing references

Cite references by using `@ref-id` and variants thereof. Some discussion of the possible variants is to be found in Section 4.2. The `ref-id`` represents the identifier for the item being cited. If you (sensibly) use \BibTeX, the identifier is provided in the first line of the bibliographic information about the item being cited. For example _The_ \LaTeX\ _Companion_ referred to above was cited in this document via`Mittelbach & Goossens (2004). The relevant item in`bibliography.bib‘ begins

```
@book{MittelbachGoossens2004,
```

If you do not use BibTeX, then the identifier is given as the "`cite_key`" for the appropriate item in the list of references following `\begin{thebibliography}{...}` line in your LaTeX document.

The way that the identifier is formed is fairly arbitrary; construct identifiers in your bibliographic information file in whatever way suits your fancy. My personal paradigm is to construct identifiers from the author's name (or authors' names) followed by the year as in the example given above. If there are more than two authors I just use the first author's name followed by "EtAl" and the year. E.g. for an article by Fred Nurk, Melvin Mingdinkler and Hoo Hee, published in 1984, I use the identifier `NurkEtAl1984`. I emphasise that this is just my personal convention that I have found useful; you are under no obligation to follow it.

4.2. Variants of the basic citation command

In addition to the "usual" citation command "`@ref-id`" there are a number of alternative citation commands that can be used to create special punctuation structures in particular circumstances. See more on the Quarto documentation site here.

Yet another variant of `@ref-id` is `[@ref-id]` which encloses the whole citation, rather than just the year, in parentheses. E.g. "Some authors prefer the hack (Cook 1966), others the hew (Moore 1967), and still others opt for a combination (Cook & Moore 1968)."

4.3. Notational conventions

It may seem dogmatic, but the Journal has some strict rules about notational conventions that must be followed. The reason for these rules is simply *consistency*. One and only one convention must be followed, otherwise the result is a visually unpleasant hodge-podge. Which convention is chosen does not usually matter very much, but a single one must be chosen and used consistently. The choice is made by the Journal; authors must follow it.

A few of the more important examples of these conventions are listed below. Many others are given in the document "*ANZJS* Style Guide for Authors" as mentioned in Section 1.

1. The transpose operator: This must be represented as a sans-serif $\top$, which is most easily rendered in LaTeX by `\top`.
2. The symbols "$\forall$" and $\exists$: Do *not* use them! Use *words* — "for each" or "for all" and "there exist(s)".

3. Random and non-random quantities: (Scalar) random variables should generally be denoted by upper case letters such as X or Y. Non-random quantities should be denoted by lower case letters. An observed value of Y would be denoted by y.
4. Vectors and matrices: Vectors quantities should be indicated by bold face font, e.g. $\boldsymbol{y}$. Vectors of observations should be presented as (boldface) lower case letters (such as the $\boldsymbol{y}$ example just given) whereas vectors of random variables should be presented as bold face upper case letters: $\boldsymbol{Y}$. Matrices should also be presented as bold face upper case letters: $\boldsymbol{M}$. To help you to adhere to these conventions there are now commands `\bx`, `\by`, `\bX`, `\bY` and `\bM` defined in the `anzsauth` document class that produce $\boldsymbol{x}$, $\boldsymbol{y}$, $\boldsymbol{X}$, $\boldsymbol{Y}$ and $\boldsymbol{M}$ respectively. To get other bold face letters, have a look at the file `anzsauth.cls` and imitate the construction of the foregoing commands.
5. Expectation: Use "E" (upright Roman font) for the expectation operator, and enclose the argument of this operator in *parentheses* as in $\mathrm{E}(X)$.
6. Variance, covariance and correlation: Likewise use "var", "cov" and "cor" (ordinary Roman font, all lower case) for the variance, covariance and correlation operators, as in $\mathrm{var}(X)$, $\mathrm{cov}(X, Y)$ and $\mathrm{cor}(X, Y)$.
7. Probability: Use "Pr" for the probability function, and enclose the argument of this function in *parentheses* as in $\Pr(A)$. The probability function is best rendered in LaTeX by using `\Pr`.
8. Do not begin sentences with symbols (mathematical or otherwise). A sentence *must* begin with a *word* that can be capitalised. For example, instead of "$\Phi(x)$ is a cumulative distribution function ...", use "The function $\Phi(x)$ is a cumulative distribution function ...".

To help you adhere (effortlessly!) to the conventions specified in items 5 and 6 there are now commands `\E`, `\var`, `\cov` and `\cor` defined in the `anzsauth` document class. This is effected by means of the `\newcommand{}` facility provided by LaTeX. These commands produce the required form of the expectation operator and the variance, covariance and correlation operators.

Other notational structures can be created in a similar manner. Look into the `anzsauth.cls` document class file; it's a plain text file; it won't bite! By imitating `\E`, `\var`, `\cov`, `\cor` and other examples, you will be able to construct a convenient "shorthand" that will allow you to produce notation conforming to the Journal's requirements using a minimal number of keystrokes.

4.4. Equation numbering

An equation should be given a number ***ONLY IF*** if it is referred to elsewhere in the paper. Use `$$ ... $$` to display an equation *without* a number. You can use `\begin{align*} ... \end{align*}` for equations that span mulitple lines. You will need to have the package `amsmath` loaded in order to have access to the `align*` (and the `align` and `split` — see below) environments. Examples:

$$\Pr(K = k) = \binom{n}{k} p^k (1-p)^{n-k}$$

and

$$\begin{aligned} P_0(x) &= 1 \\ P_1(x) &= x \\ P_2(x) &= (3x^2 - 1)/2 \\ P_3(x) &= (5x^3 - 3x)/2 \\ &\cdots \\ P_{n+1}(x) &= ((2n+1)xP_n(x) - nP_{n-1}(x))/(n+1) \end{aligned}$$

Use `$$ ... $$` followed by an equation id, e.g. `{#eq-example}` to display an equation *with* a number. You can use `\begin{eqnarray} ... \end{eqnarray}` to display an array of equations with numbers, but as for un-numbered arrays of equations it is better to use `\begin{align} ... \end{align}`. Very often you will wish to have only one number associated with an array of equations. To suppress equation numbers you can use the `\nonumber` command with `align`, but you get a sexier result if you use `split` inside an equation environment. Examples:

$$\mathrm{E}\left(\sum_i h(x_i, \boldsymbol{X} \setminus \{x_i\})\right) = \mathrm{E}\left(\int_W h(u, \boldsymbol{X}) \lambda(u, \boldsymbol{X})\, du\right) \tag{1}$$

and

$$\begin{aligned} \alpha\beta &= \bar{x} \\ \alpha\beta^2 &= s^2 \quad . \end{aligned} \tag{2}$$

Note how the label (i.e. "(2)") is vertically centred with respect to the array of equations. See the LaTeX

source for the foregoing example in the file `template.qmd` for guidance as to how all this is done.

Displayed equations which *are* numbered should be numbered consecutively (1), (2), ..., throughout the paper, including in the appendices if any. (I.e. they should *not* be numbered "within sections".) The required behaviour is the default in LaTeX. As long as you do not take any overt action to mess it up, you will get the appropriate style in your document.

4.5. Figures and tables

Figures and tables often cause problems with the processing of papers. Here are a few comments on the preparation and presentation of such displays, with an example of each type. Of course the "content" of these examples is just flippant, frivolous nonsense, as my examples usually are. (These examples are meant to be humorous; as I indicated previously, whether you find them funny depends on your sense of humour.)

It can be a major annoyance if authors supply each panel of a multi-panel figure as a separate figure file. When this is done, authors usually proceed by arranging the panels, within an array that constitutes a single figure, by juxtaposing the commands used to input the figures in an appropriate manner and interleaving appropriate line breaks. Although this is all do-able, and may lead eventually to a visually acceptable figure, it makes extra work both for the author and for the typesetters. It may also add a substantial amount of tedious work to the procedure of uploading the final version of the paper to ScholarOne if you upload the figures individually (rather than in a zip archive, this last now being acceptable to ScholarOne).

It is much better to create a multi-panel figure in a single figure file, using appropriate graphics techniques.

Another important issue is making sure that line types and plotting symbols are *distinguishable* in black and white. Figures appear in the print version of the Journal in black and white *only*, unless authors specifically request that some or all of the figures appear in colour and are *willing to pay a charge* to cover the extra costs that are incurred in printing colour figures. So unless you wish to pay this charge — roughly speaking $350 USD per figure — you should prepare your figures in black and white, and do this from the very start. (Figures that are prepared in colour and then converted to black and white in the printing process usually look awful! Consequently the Journal does not countenance this practice.) In particular, lines in different categories should

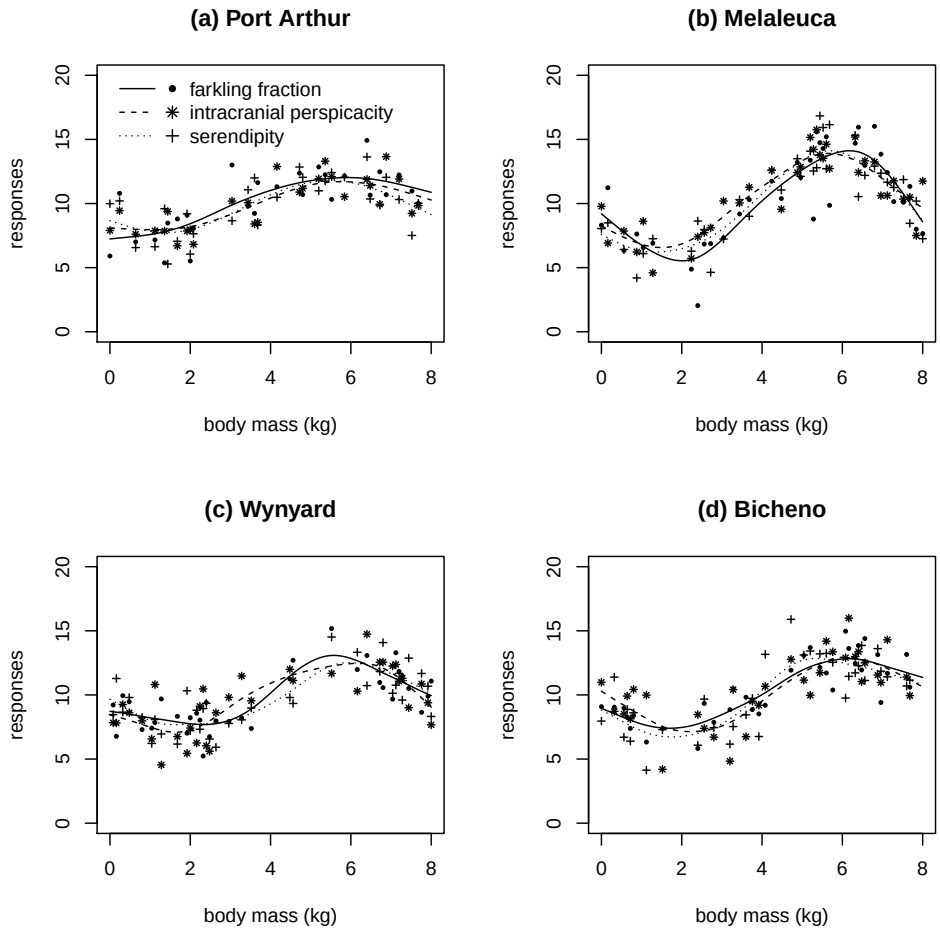

Figure 1. Characteristics of the Lesser Tasmanian Drop Bear (farkling fraction, intracranial perspicacity and serendipity all in furlongs per fortnight) plotted against body mass (kilograms). The observations were made on samples obtained at four locations in Tasmania. Plotted points represent the raw observed values; plotted lines represent non-parametric fits to the raw data.

be distinguished by *line type* — solid, dashed, dotted . . . , and not by colour. A modest example is given in Figure 1. Sometimes it is useful, or perhaps even necessary, to distinguish categories by means of line *thickness* but proceeding in this way requires a great deal of care.

Note that colour figures can appear in the online version of the paper for *free*! However care must be taken, since *only one* version of the text of the paper is produced. Consequently the online colour figures, and captions and references to figures in the

text, must be structured in such a way as to make sense both to readers of the black-and-white (print) version and the colour (online) version. See `styleGuide.pdf`, Section 5.1, for a bit more detail.

A common error in respect of tables is making them overly elaborate. Remember that the purpose of a table is to convey information! If a table is excessively complex, the reader's eyes will glaze over and he or she will skip the table, resulting in no information at all being conveyed. In particular, if a table is too wide to fit on a page and has to be rotated 90° in order to be displayed, then you are trying to put an excessive amount of information into a single table. The Journal will henceforth *insist* that tables fit vertically onto a single page. If your paper contains tables that do not satisfy this condition then you will be required to re-design your table accordingly. Possibilities for effecting the re-design include eliminating some of the "information", splitting the table into two or more smaller tables and putting all or part of the table into the online supplementary material. An example of a reasonably perspicuous table is given in Table 1.

Table 1. A load of dingoes' kidneys in respect of characteristics of the Lesser Tasmanian Drop Bear. Standard deviations are given in parentheses after the mean values.

Location	Body mass (kg.)	Farkling fraction	Intracranial perspicacity	Serendipity
Port Arthur	3.95 (2.40)	10.14 (2.43)	9.91 (1.99)	9.81 (2.24)
Melaleuca	4.55 (2.41)	10.48 (3.51)	10.83 (2.94)	10.54 (3.30)
Wynyard	3.87 (2.70)	9.51 (2.20)	9.40 (2.44)	9.50 (2.23)
Bicheno	4.16 (2.41)	10.46 (2.44)	10.44 (2.64)	10.20 (2.86)

As stated in the "*ANZJS* Style Guide for Authors" captions for tables and figures should be left-justified and not centred unless the text of the caption fits on a single line. However one-line captions should be centred. For instance if the caption of Table 1 were simply "Dingoes' kidneys", then centring would be preferable. When the `anzsauth` document class is used, captions are automatically centred if the caption fits on a single line. (Note that the document class file `anzsauth.cls` has recently — as of 6th November 2016 — been adjusted to make table captions more similar in appearance to figure captions. Because of this adjustment, the centring of one-line table captions is now automatic whereas, previously, overt measures were required.)

A table or figure that appears in the paper *must* be referred to in the text, even if only very briefly. That is, there must at the very least be something like "see Figure~17". If there is no such reference, then the corresponding table or figure must not be included in the paper.

5. Cross referencing

A facility provided by LaTeX that tends to be underused in submissions to the Journal is automated cross-referencing as provided by the `@...` and `#` commands. See Quarto documentation for more on this! It is highly recommended that you learn to make use of these. They make it much easier to keep cross-references correct when you revise a paper. It seems to me to be a good idea to give a label to each section and subsection, as you are composing it, even if you are not sure you will be referring to it in other sections. (There is no *harm* in inserting a label.) If you assign labels to sections then you can easily invite the reader to "see Section 4.5" (as I am about to do below!). Likewise it is a good idea to give each figure and table (see Section 4.5) a label so as to be able to refer to it via the `\ref{...}` command.

Only displayed equations that are *actually referred to* should be numbered (see Section 4.4). If the equation *is* referred to, then of course you should give it a label so that you *can* refer to it easily.

My personal practice is to label sections and subsections with labels of the form `sec-string`, e.g. "`#sec-intro`". Similarly I form such labels for figures and tables as `fig-string` or `tbl-string` (e.g. `@fig-ltdb` or `@tbl-ltdb`) and labels for equations as `@eq-string` (e.g. `#eq-GNZ`). I find this practice convenient, but you are of course under no obligation to follow it.

A practice that I have often seen and that I think should *not* be indulged in, is to use labels such as "`Figure1`". There is *not necessarily* any harm in this, but to a large extent such a practice defeats the purpose of using dynamic labels. If you decide to change the order in which figures appear in your paper, then the label "`Figure1`" will probably no longer be appropriate. At best you will confuse yourself, and you run a serious risk of getting labels wrong. Use labels that refer to *content* (in a terse manner, of course) and let LaTeX handle the assignment of numbers! If you insist on using labels like unto "`Figure1`", then take great care to make sure that the result is correct.

6. Appendices

Journal policy is that if there is a single appendix to your document it should be headed simply '**Appendix**' (i.e. there should be no other text in the header and no number). If the document has more than one appendix these should be headed **Appendix** I, **Appendix II**, ... (i.e. there should be no other text in the headers, and numbering should be in upper case Roman numerals).

Do *not* use the 'native' LaTeX command `\appendix`!.

To make it easy to supply appendix headers in the appropriate style, the `anzsauth` document class provides two new environments: `uniqueAppendix` and `Appendix`. Use the former if your document has a single appendix, and the latter if it has more than one. The use of the `Appendix` environment is illustrated by means of the dummy appendices Appendix~I, Appendix~II and Appendix~III. These mostly consist of "Lorem ipsum" nonsense Latin and are to be found at the end of this document that you are currently reading.

The `\label{}` and `\ref{}` commands work with appendices (when there are multiple appendices). Just put a label within the relevant `Appendix` environment and then refer to that appendix with constructions like "`See Appendix~\ref{lll}`", where "`lll`" is the label that you have assigned to the Appendix in question. Obviously if you have a unique appendix you can just say (e.g.) "See the Appendix ..." and there is no need for labelling.

In order to illustrate the use of `uniqueAppendix` I had to invoke it even though there are actually multiple appendices (four in all) in this document. Don't *you* do that! Do as I say, not as I do!

The text constituting the illustration of `uniqueAppendix` consists of a recapitulation of the foregoing note.

7. Preparing LaTeX and BibTeX documents

7.1. Editing LaTeX source files

There are a number of approaches to preparing your `*.tex` and `*.bib` files. A primary consideration is that you should use either a general **text editor**, or a specialised LaTeX editor for this task. Do *not* use a word-processing program as an editor. Using

a word-processor introduces a plethora of spurious non-printing characters which will completely mess things up and in all likelihood cause the universe to come to an end.

Good text editors include `vi` or `vim`, `emacs`, `gedit`, `pico`, `Crimson`, `Notepad++`,~... . Good editors will have support for editing of LaTeX such as syntax highlighting and code completion. The Windows™ editors `Notepad` and `Wordpad` are distinctly inferior in this respect.

Among a number of possible specialised LaTeX editors, one that has been highly recommended to me by several reliable sources is `TeXstudio`. This is an open-source, multi-platform, fully-featured editor for LaTeX. It allows for easy processing of documents, has support for inclusion of a vast range of characters, provides auto-completion of LaTeX commands, has a built-in pdf viewer and a number of other helpful facilities. Other similar programs are `Texmaker` and (Windows™ only) `WinEdt`.

Users of Windows™ will almost surely make use of LaTeX via MiKTeX. This is free open source software, and is readily available and easy to install.

The integrated development environment (IDE) `proTeXt` is described as being "an easy-to-install TeX distribution for Windows™, based on `MiKTeX`", "which adds the `TeXstudio` front end to MiKTeX". Some authors may find it helpful.

8. Concluding comments

This document contains guidance on how to prepare a paper for submission to *ANZJS* by making use of the 'anzsauth} document class for LaTeX. You will find that by making use of this document class and following the advice that is provided in the foregoing material, you will be able to produce a paper that meets the Journal's requirements and that requires much less revision and adjustment than it otherwise might, thus speeding up the publication process considerably.

This document also emphasises the importance of good exposition and correct use of the English language. The Journal has very high, and strictly enforced, standards in this regard. Please pay close attention to this requirement and give careful thought to the way in which you express yourself. Doing so will, again, speed up the publication process for you.

The accompanying file `template.qmd` forms a template for LaTeX source files for papers that are to be submitted to the Journal. When preparing your own LaTeX source file, you should imitate the structure of the template closely. You may find that an

effective way to proceed is to edit the template, *mutatis mutandis*, replacing authors' names, the title of the paper, the abstract (summary) and the actual content as is appropriate. *Please* remove extraneous bits and pieces from the prototype file when converting it into your own paper. Don't leave material that is relevant only to the prototype (e.g. comments advising you how to format your paper) lying around. Tidy up! This makes processing your paper for publication much easier (and quicker!). In respect of tidyness I draw your attention to the last paragraph of this section (keep the typescript in your source file tidy!).

With regard to removing extraneous material, it turns out to be expedient for me to mention that the disclaimer at the end of the footnotes on the title page of this document should *not* be included when you adapt the prototype source file to your own uses. That disclaimer applies to *this paper*, i.e. "**How I rose from the dead in my spare time and so can you**". The Journal does *not* require you to include such a disclaimer in *your* paper, nor should you do so.

Although it is not necessary to prepare the initial submission using the `anzsauth` document class, it is very important that the final version that you submit (after provisional acceptance of your paper) should conform to the Journal's requirements. This is much more likely to be the case if you use the `anzsauth` document class. It is likely to be less work for you if you make use of this document class and of the template from the outset, if this is at all possible. Note that it *is* necessary for the initial submission to be double spaced and to be line-numbered. These requirements are greatly facilitated by using the required document class.

It is often the case that the Technical Editor will wish to make some minor (or sometimes major!) adjustments to the LaTeX source file that you provide, before putting the paper into production. This saves having to send the paper back to authors, yet one more time, to get these adjustments made. The process of making these adjustments is a *whole lot* easier if the source file is constructed in a tidy and comprehensible manner. Use appropriate line breaks (keeping lines to a length of, e.g., at most 80 characters) and ensure that there is appropriate *spacing* between mathematical constructions. Do not embed LaTeX commands to produce displayed equations in on-running lines of text. All of this will have of course absolutely no impact on the *output* file produced by compiling the LaTeX source, but it simplifies the process of modifying and adjusting this source by orders of magnitude.

Appendix I

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Appendix II

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Appendix III

Zephod Beeblebrox

This appendix was written by Zephod Beeblebrox, but he didn't actually have anything to say. 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

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Appendix

This is what you should get if you had only *one* appendix. Since this document has several appendices (four, actually) the use of the `uniqueAppendix` environment is completely inappropriate here. It is included for illustrative purposes only. I needed to illustrate syntax to be used both for multiple and unique appendices, but obviously one cannot have a single document in which there is a unique appendix and in which there are multiple appendices! (That would violate the, uh, law of small numbers. `:-)`) Consequently I was forced to include an inappropriate example of the use of `uniqueAppendix`.

I reiterate: Use the `uniqueAppendix` environment if there is only one appendix to your document. Use the `Appendix` environment if there are two or more appendices to your document.

References

Cook, P. (1966). I found a bit of coal. *Journal of Rubbish* **1**, 67–76.

Cook, P. & Moore, D. (1968). An even heavier bit of coal. *The Minnow* **3**, 69–78.

Mittelbach, F. & Goossens, M. (2004). *The LaTeX Companion*. Reading, MA: Addison-Wesley, 2nd edn.

Moore, D. (1967). I found another bit of coal. *Journal of Riffraff* **2**, 68–77.