

**How to Write a (Term) Paper -  
Structure, Style and Form**

**Degree Dissertation  
for the  
Bachelor Examination in Economics and Business  
Administration  
at the  
Faculty of Economics and Social Sciences  
of the  
Eberhard Karls Universität  
Tübingen**

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## **Abstract**

The Abstract is not mandatory. If added, it should specify the main result of the paper using not more than 100 words. The content must be concrete. For example: This document is a template for a term paper or thesis in terms of both content and form. Stylistically, the document follows the current Journal of Finance guidelines except for the title page design and the implementation of acknowledgments, table of contents, list of figures, list of tables, and a quote, which are usually not part of papers intended for submission to a journal.

## **Acknowledgments**

Acknowledgments are not mandatory. If there are people who contribute to the success of the paper by providing data, literature, or similar, this is the place to thank them. Of course, a thank you to the supervisor is seldom wrong.

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*A quote, short story or the like is not mandatory. Some people like to add a philosophical note before the scientific writing starts. Others find it rather cheesy. It really depends on personal taste. If used, however, the quote (or whatever) should match the text.*

- Unknown Author

Since this template follows the current Journal of Finance style guidelines (to the best of knowledge), the introduction is a section without a title and not indented at the beginning. (Deviations from the journal's guidelines are the design of the title page and adding acknowledgments, table of contents, list of figures, list of tables, and a quote). All other paragraphs are indented. When not submitting the paper to the Journal of Finance, you can add the title "Introduction" to this section and unindent the first paragraph by deleting `\noindent` if you want.

Start with the main result and write what you do (3 pages at maximum). It should not be a historical essay or a deep reaching explanation of the topic, but it should explain concisely what the main questions of the topic are and which methods or data will be used. A further goal of the introduction is to define the structure for the paper. This can be achieved by describing the goals, the methods and the main results of the paper. Methods and results do not have to be discussed in detail - this is left to the main part of the paper - but they should be summed up in a short way.

The introduction of a paper is often finished by a short "roadmap". This is not necessary, if the aspects mentioned above have been laid out in a satisfactory way before.

## I. Some Title for a Main Section

### *A. Literature Overview and Citation*

The literature overview may be kept short and can be part of the introduction. Term papers whose main purpose is to present and discuss the contents of published articles are exceptions. In general, write what is different in your approach and define your paper with regard to the 2-3 closest papers. When referring to articles or other literature, it is essential to mark these as references. It is best to reference in the text itself. When referring to papers, the author and the year of publication should be given: "Biewen (2020) serves as base paper for this document in terms of content" or "Iterated GMM provides asymptotically efficient estimators (Hansen, 1982)". You might want to use a bibliography management software like JabRef<sup>1</sup> (used here).

If the paper was written by more than two authors, this fact is usually abbreviated as, for example, Guo et al. (2017). In case there was more than one publication in the same year, a small letter is added to the year such as Fama and French (2015b). When referring to a whole chapter, the chapter should be mentioned: Cochrane (2000, chap. 2).

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<sup>1</sup><http://jabref.sourceforge.net/>

(A tilde in `TEX` code prevents line breaks between characters). Citing from books should at least contain the page number. For example, Cochrane (2000, pg. 14) (section and chapter can be added as well like in the paragraph below).

Direct citations must be enclosed in quotation marks. In this case, the year of publication should be added with the author’s name. For example, “In complete markets, no-arbitrage implies that there exists a unique  $m > 0$  such that  $p = E(mx)$ .” (Cochrane, 2000, sec. 4.2, pg. 71). The use of direct citations should be kept to a minimum.

If you use packages for coding and the authors provide citation information, appreciate their work by adding the respective entry to the references. For example, you can write “I implement the Logistic Regression using Pedregosa et al. (2011)”.

Further citation examples are “... (compare Fama and French, 2015a)” and “... (see Hastie et al., 2017, sec. 9.2, pg. 309)”. Forcing the first letter of the author to be a capital letter can be achieved by using `\Citet` instead of `\citet`. For example, think of starting a sentence citing a paper by economist Björn van Roye. `\Citet` changes “van” to “Van”.

## *B. Theory and Methods*

When writing an empirical paper, the theoretical part should be limited to an amount necessary to understand the empirical part. It is better to limit the theory to special cases rather than striving for a maximum of generality. Of course, when writing a theoretical paper, or a paper on pure methods, the theoretical part will receive more weight. However, the presentation should always be structured so that it clearly works out the main points, concentrating on the aspects that are really central to the topic. To present the main result, use a minimum of potential criticism and robustness checks (Cochrane, 2005). Detailed proofs should be moved to the appendix<sup>2</sup>.

### *B.1. Math Environment*

In the math environment you can use the following shortcut to change the font style of  $\beta$  to bold  $\beta$ . Important equations should be numbered like

$$b = (x'x)x'y . \tag{1}$$

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<sup>2</sup>Small derivations, bits of algebra, long references and documentation can appear as footnotes (Cochrane, 2005). For example,  $\hat{p}_i^{real} = \frac{1}{4}(\bar{w}_i + \bar{v}_i)$ . Do not use footnotes for statements that would otherwise be in parentheses (Cochrane, 2005). Generally, use the necessary minimum number of footnotes and parentheses.

Less important equations that occur only once and are not referred to throughout the text are written as

$$a = 1 .$$

Here are some further examples for more complicated formulas in L<sup>A</sup>T<sub>E</sub>X:

$$\mathcal{L} := 5$$

$$x + \frac{\mathfrak{A}}{\mathfrak{A}} = 1 \tag{2}$$

$$\lim_{x \rightarrow \infty} \exp(-x) = 0$$

$$\frac{n!}{k!(n-k)!} = \binom{n}{k} \tag{3}$$

$$\sqrt[n]{1 + x + x^2 + x^3 + \dots + x^n} = n^{\text{th}} \text{ root}$$

$$\left( \left( \left( \left( \sum_{i=1}^{10} t_i \neq \int_0^\infty e^{-x} dx \right) \right) \right) \right) \tag{4}$$

$$\Rightarrow A_{m,n} = \begin{pmatrix} a_{1,1} & a_{1,2} & \dots & a_{1,n} \\ a_{2,1} & a_{2,2} & \dots & a_{2,n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m,1} & a_{m,2} & \dots & a_{m,n} \end{pmatrix} \tag{5}$$

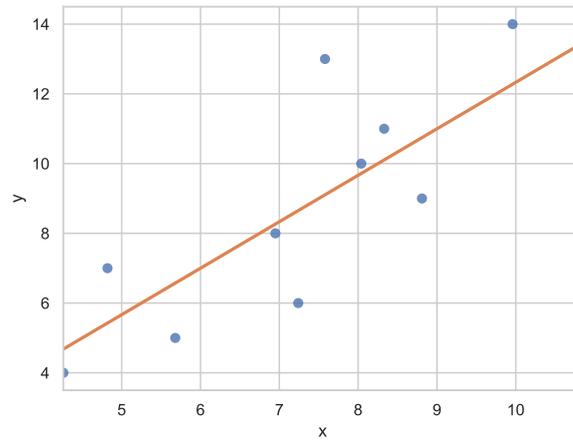
$$\mathbf{g}_T(\tilde{\beta}, \tilde{\gamma}) = \begin{bmatrix} \frac{1}{T} \sum_{t=1}^T \tilde{\beta} \left( \frac{c_t}{c_{t+1}} \right)^{-\tilde{\gamma}} \hat{R}_{t+1}^1 - 1 \\ \frac{1}{T} \sum_{t=1}^T \tilde{\beta} \left( \frac{c_t}{c_{t+1}} \right)^{-\tilde{\gamma}} \hat{R}_{t+1}^2 - 1 \\ \vdots \\ \frac{1}{T} \sum_{t=1}^T \tilde{\beta} \left( \frac{c_t}{c_{t+1}} \right)^{-\tilde{\gamma}} \hat{R}_{t+1}^{10} - 1 \end{bmatrix} \tag{6}$$

A very useful tool to generate formulas is Mathpix Snip<sup>3</sup>, which can create L<sup>A</sup>T<sub>E</sub>X code from screenshots. Without an upgrade to the Pro version, the software costs 0 € and provides several free snips every month.

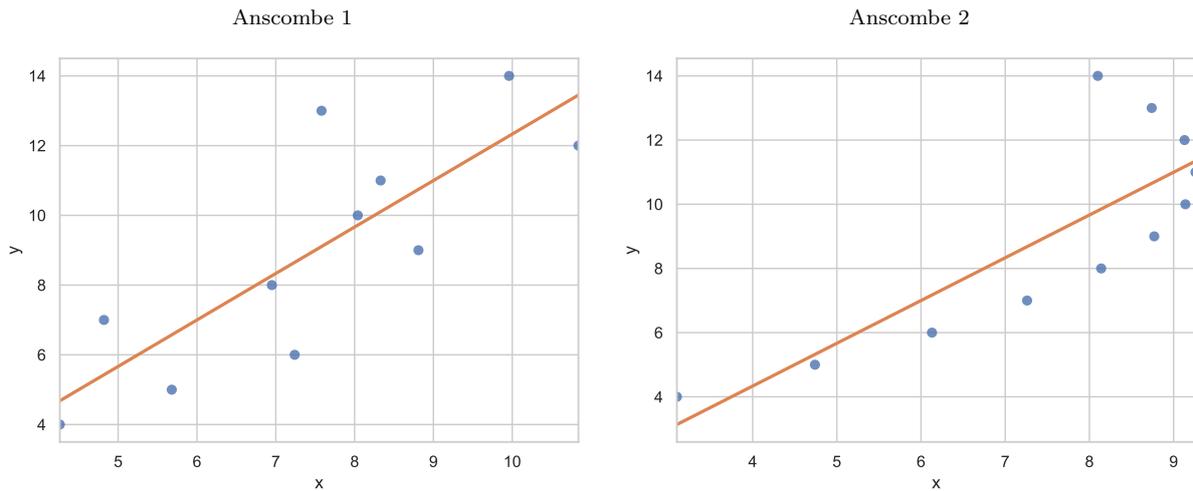
The first equation can be referred to using the respective Equation (1) label. Equation (3) within the align environment can also be referenced. Accordingly, we can reference Figure 1, Figures 1 and 2 or Figures 1 to 3.

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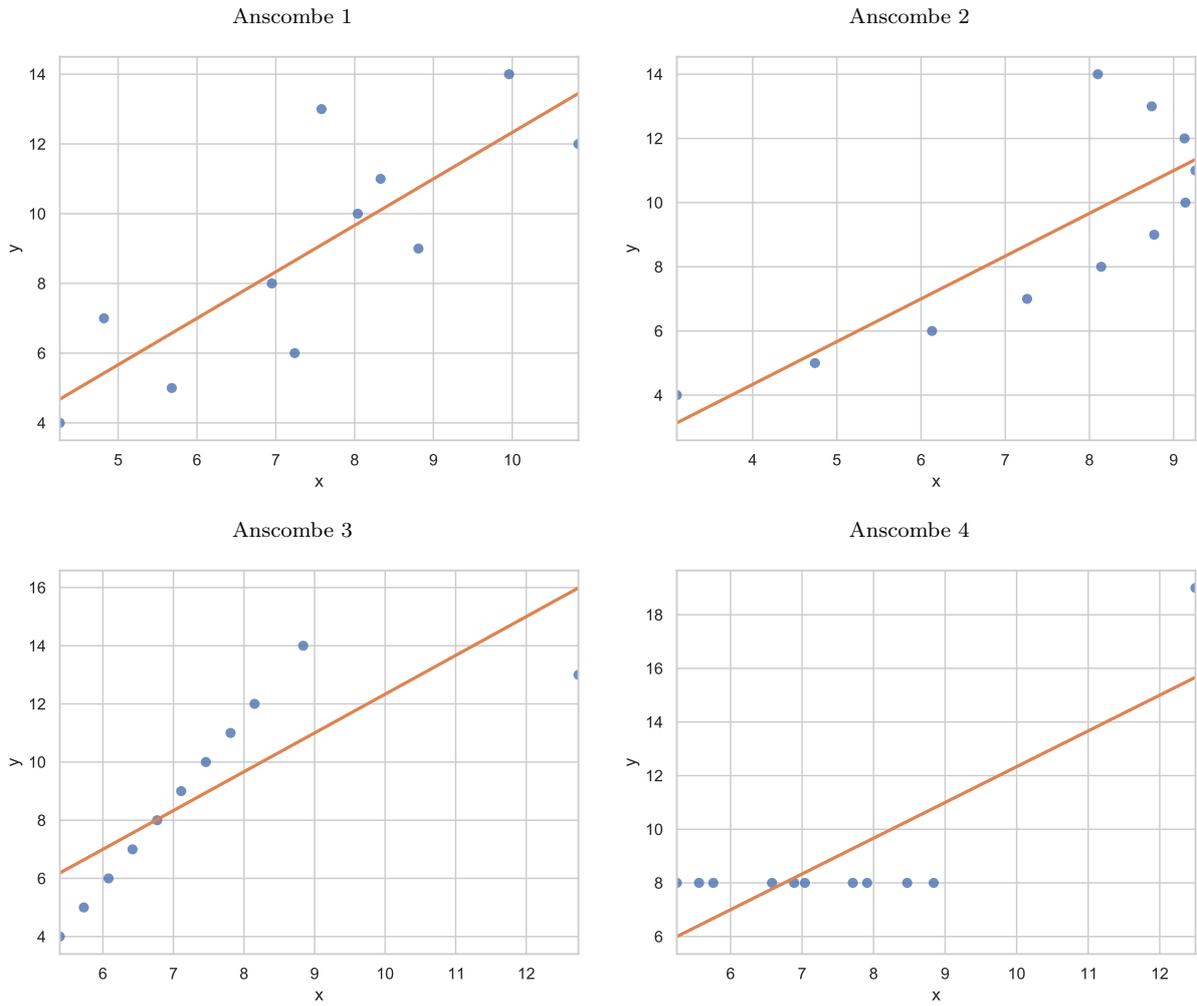
<sup>3</sup><https://mathpix.com/>



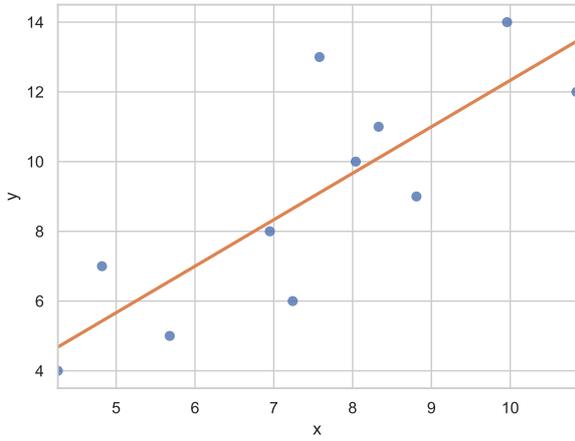
**Figure 1. Regression Plot of Anscombe 1 - Single Plot.** This figure shows a scatter plot (blue) with regression line (orange) of the first dataset in Anscombe's quartet. The slope coefficient is estimated by OLS. There is no constant added to the model. Mean and standard deviation of  $y$  are given by 9 and 3.3, respectively.



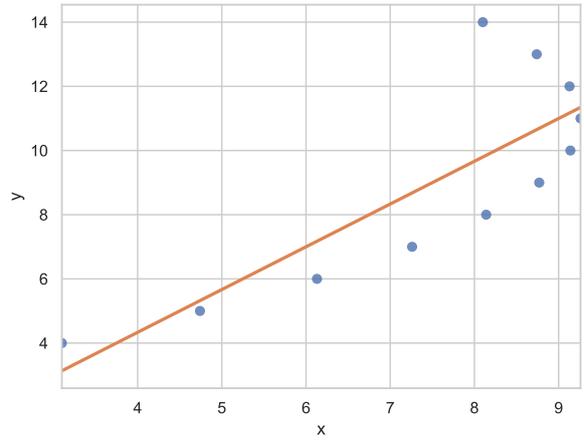
**Figure 2. Regression Plot of Anscombe 1 and 2 - Double Plot with 1 Caption.** This figure shows a scatter plot (blue) with regression line (orange) of the first (left) and second (right) dataset in Anscombe's quartet. The slope coefficient is estimated by OLS. There is no constant added to the model. Mean and standard deviation of  $y$  for both sets are given by 9 and 3.3, respectively.



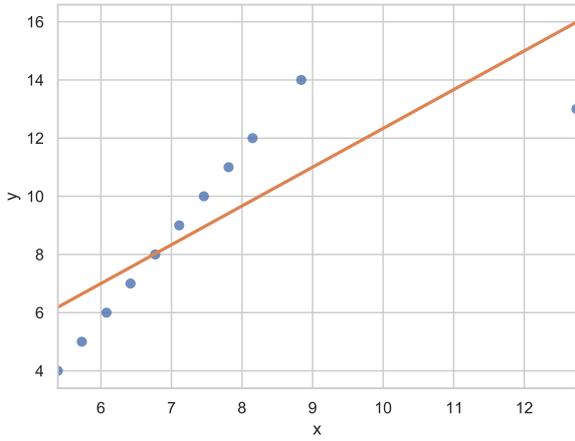
**Figure 3. Regression Plot of Anscombe's Quartet - Quadruple Plot with 1 Caption.** This figure shows a scatter plot (blue) with regression line (orange) of the first (top left), second (top right), third (bottom left), and fourth (bottom right) dataset in Anscombe's quartet. The slope coefficient is estimated by OLS. There is no constant added to the model. Mean and standard deviation of  $y$  for all sets are given by 9 and 3.3, respectively.



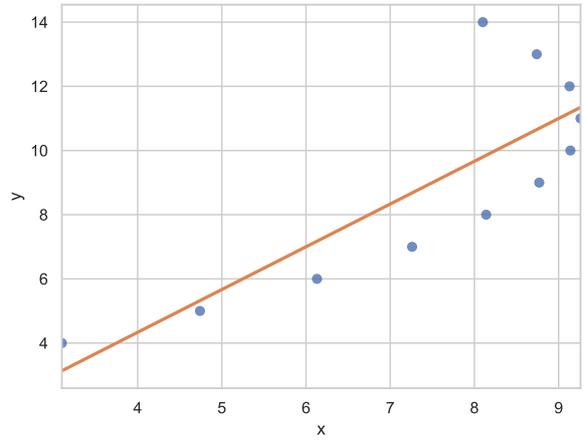
**Figure 4. Regression Plot of Anscombe 1 - Double Plot with 2 Captions.** (Equivalent description as Figure 1).



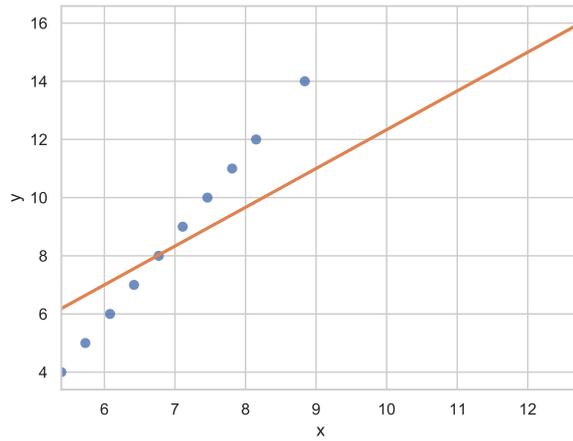
**Figure 5. Regression Plot of Anscombe 2 - Double Plot with 2 Captions.** (Equivalent description as Figure 1 using the second dataset in Anscombe's quartet).



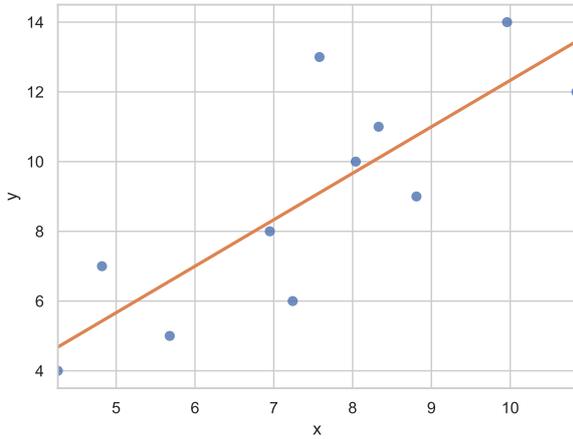
**Figure 6. Regression Plot of Anscombe 1 - Triple Plot with 3 Captions.** (Equivalent description as Figure 1).



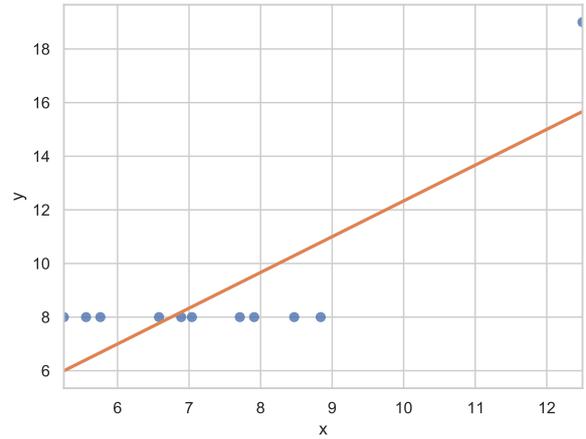
**Figure 7. Regression Plot of Anscombe 2 - Triple Plot with 3 Captions.** (Equivalent description as Figure 1 using the second dataset in Anscombe's quartet).



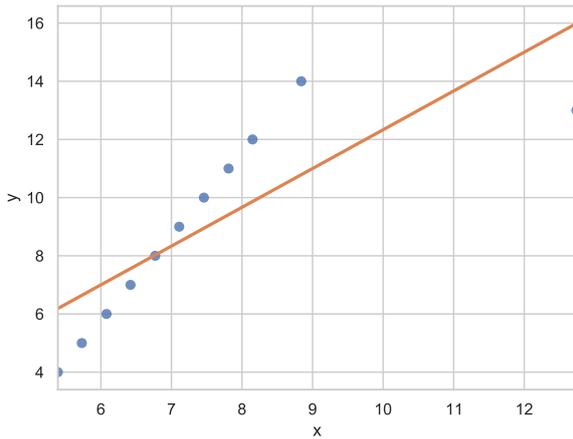
**Figure 8. Regression Plot of Anscombe 3 - Triple Plot with 3 Captions.** (Equivalent description as Figure 1 using the third dataset in Anscombe's quartet).



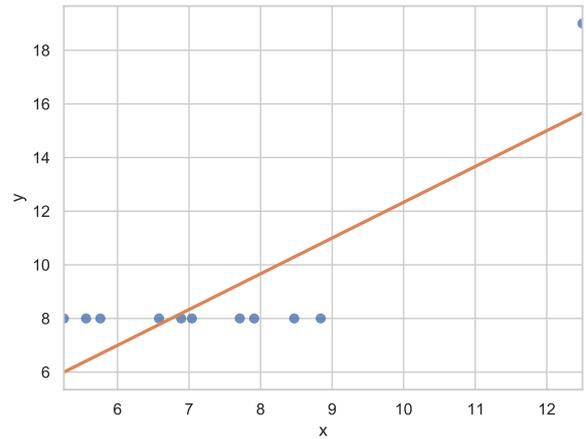
**Figure 9. Regression Plot of Anscombe 1 - Quadruple Plot with 4 Captions.** (Equivalent description as Figure 1).



**Figure 10. Regression Plot of Anscombe 2 - Quadruple Plot with 4 Captions.** (Equivalent description as Figure 1 using the second dataset in Anscombe's quartet).



**Figure 11. Regression Plot of Anscombe 3 - Quadruple Plot with 4 Captions.** (Equivalent description as Figure 1 using the third dataset in Anscombe's quartet).



**Figure 12. Regression Plot of Anscombe 4 - Quadruple Plot with 4 Captions.** (Equivalent description as Figure 1 using the fourth dataset in Anscombe's quartet).

## II. For Example: Empirical Analysis

In the empirical section, the main results should be explained first. If this is not possible, because intermediate steps are required to understand the results, then only intermediate results should be explained that are really essential for this purpose. Figures and tables should be used to present the main results.

It is often useful to investigate the robustness of the results with respect to differ-

ent aspects. If the results were calculated under the homoskedasticity assumption for example, one should discuss what happens if the assumption is violated. More detailed empirical results should be put into the appendix unless there are important reasons not to do so.

### III. Data

When writing an empirical paper, it is necessary to give a concise description of the dataset being used. This description should include information about the dataset provider and the variables used. A descriptive analysis of the data is useful, but it may also be moved to the appendix. It often makes sense to include suitable descriptive numbers at the respective places in the text already.

Generally, for the representation of numbers in tables it is important to use an adequate number of decimal places and to keep the style consistent across all parts of the table. For example, in Table I (referring to tables is the same procedure as for equations and figures) there are no trailing zeros in column 1 as the number of observations is an integer. The remaining columns contain float numbers. Note that integers like 9.00 in column 2 are reported with 2 trailing zeros to keep the number format homogeneous within a column.

**Table I**  
**Descriptive Statistics of Anscombe’s Quartet**

This table presents descriptive statistics of the Anscombe Quartet. The metrics in the columns from left to right are number of observations, arithmetic mean, standard deviation (unbiased), minimum, 25% quantile, median, 75% quantile, and maximum. Vectors  $x_1$  and  $y_1$  denote  $x$  and  $y$  from the first Anscombe set. Hence, the numbers refer to the corresponding dataset from the Anscombe Quartet.

	count	mean	std	min	25%	50%	75%	max
x1	11	7.50	2.03	4.26	6.31	7.58	8.57	10.84
y1	11	9.00	3.32	4.00	6.50	9.00	11.50	14.00
x2	11	7.50	2.03	3.10	6.70	8.14	8.95	9.26
y2	11	9.00	3.32	4.00	6.50	9.00	11.50	14.00
x3	11	7.50	2.03	5.39	6.25	7.11	7.98	12.74
y3	11	9.00	3.32	4.00	6.50	9.00	11.50	14.00
x4	11	7.50	2.03	5.25	6.17	7.04	8.19	12.50
y4	11	9.00	3.32	8.00	8.00	8.00	8.00	19.00

**Table II**  
**Part 1 and 2 Descriptive Statistics of Anscombe's Quartet**

This table presents descriptive statistics of the Anscombe Quartet. The left table depicts number of observations, arithmetic mean, standard deviation (unbiased), and minimum (columns from left to right). The right table displays the 25% quantile, median, 75% quantile, and the maximum. Vectors  $x_1$  and  $y_1$  in both tables denote  $x$  and  $y$  from the first Anscombe set. Hence, the numbers refer to the corresponding dataset from the Anscombe Quartet.

<b>Part 1</b>					<b>Part 2</b>				
	count	mean	std	min		25%	50%	75%	max
x1	11	7.50	2.03	4.26	x1	6.31	7.58	8.57	10.84
y1	11	9.00	3.32	4.00	y1	6.50	9.00	11.50	14.00
x2	11	7.50	2.03	3.10	x2	6.70	8.14	8.95	9.26
y2	11	9.00	3.32	4.00	y2	6.50	9.00	11.50	14.00
x3	11	7.50	2.03	5.39	x3	6.25	7.11	7.98	12.74
y3	11	9.00	3.32	4.00	y3	6.50	9.00	11.50	14.00
x4	11	7.50	2.03	5.25	x4	6.17	7.04	8.19	12.50
y4	11	9.00	3.32	8.00	y4	8.00	8.00	8.00	19.00

**Table III**  
**Part 1 Descriptive Statistics of**  
**Anscombe’s Quartet**

This table presents descriptive statistics of the Anscombe Quartet. The metrics in the columns from left to right are number of observations, arithmetic mean, standard deviation (unbiased), and minimum. Vectors x1 and y1 denote  $x$  and  $y$  from the first Anscombe set. Hence, the numbers refer to the corresponding dataset from the Anscombe Quartet. Since this description is a little bit longer, the two descriptions are aligned at the top.

	count	mean	std	min
x1	11	7.50	2.03	4.26
y1	11	9.00	3.32	4.00
x2	11	7.50	2.03	3.10
y2	11	9.00	3.32	4.00
x3	11	7.50	2.03	5.39
y3	11	9.00	3.32	4.00
x4	11	7.50	2.03	5.25
y4	11	9.00	3.32	8.00

**Table IV**  
**Part 2 Descriptive Statistics of**  
**Anscombe’s Quartet**

This table presents descriptive statistics of the Anscombe Quartet. The metrics in the columns from left to right are 25% quantile, median, 75% quantile, and maximum. Vectors x1 and y1 denote  $x$  and  $y$  from the first Anscombe set. Hence, the numbers refer to the corresponding dataset from the Anscombe Quartet.

	25%	50%	75%	max
x1	6.31	7.58	8.57	10.84
y1	6.50	9.00	11.50	14.00
x2	6.70	8.14	8.95	9.26
y2	6.50	9.00	11.50	14.00
x3	6.25	7.11	7.98	12.74
y3	6.50	9.00	11.50	14.00
x4	6.17	7.04	8.19	12.50
y4	8.00	8.00	8.00	19.00

In most cases, a representation like Tables III and IV will not be the first choice. Instead, the two tables are displayed with full text width (one below the other).

Equation (C1), Figure A1, and Table BI refer to an equation, figure, and table in the appendix. Sections and subsections can be addressed via Section I and Section I.A, respectively.

Formatted text like a regression output, model setup, or a code snippet can be embedded as shown in Table BIII.

## IV. Discussion

The discussion section is not mandatory. However, it can be useful to address issues the analysis might have. Also, this section is a good place to obey the “do not beg for questions” rule. A good text anticipates questions and gives answers. A phenomenal text

answers questions the reader does not even have yet.

## **V. Conclusion**

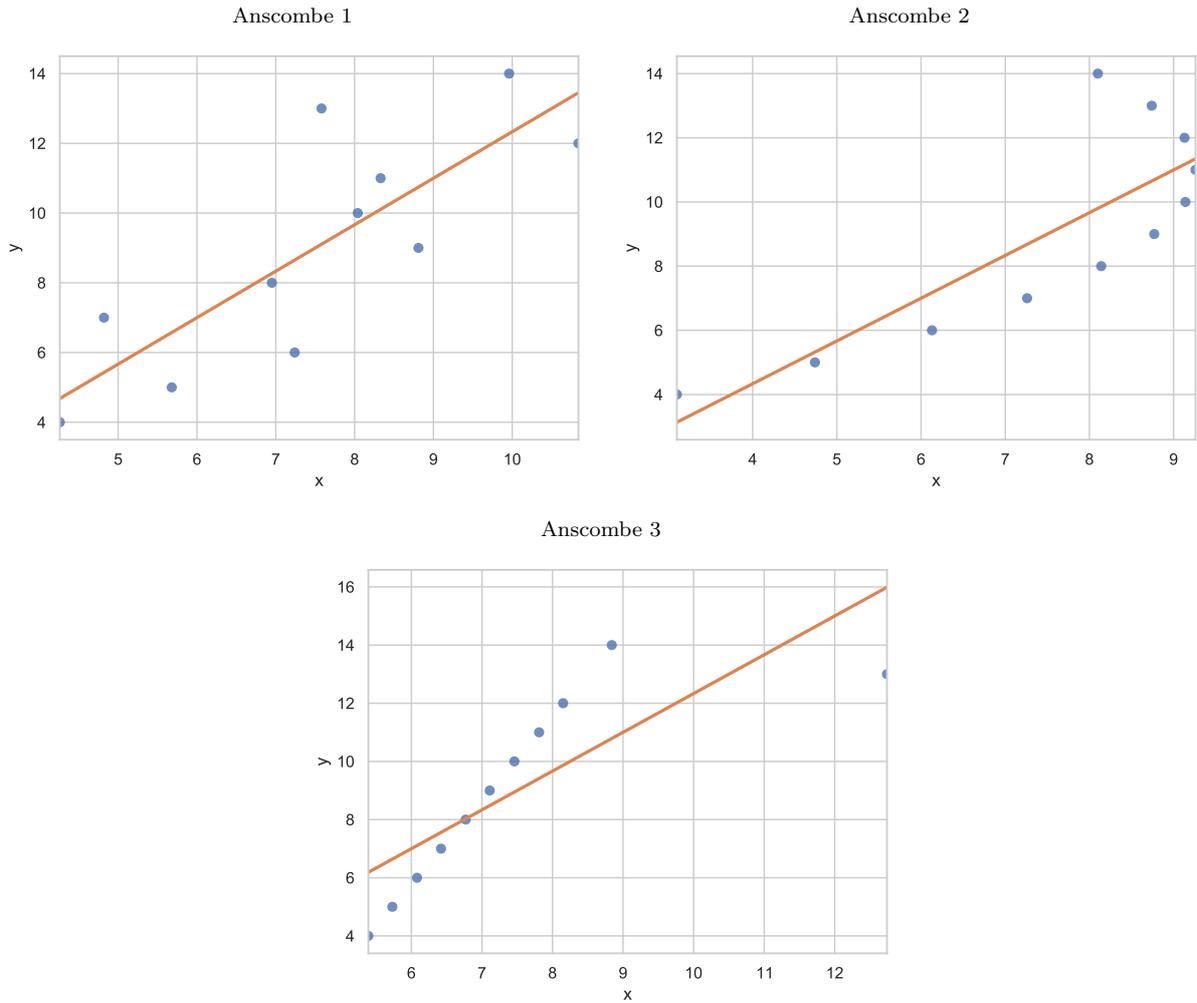
The conclusion should contain a summary of the main results and its implications. You can also mention directions for future research. However, avoid speculation (Cochrane, 2005).

## References

- Martin Biewen. How to write a term paper: Structure, style and form. July 2020.
- John H. Cochrane. *Asset Pricing*. Princeton University Press, 2000. ISBN 9780691121376.
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- Unkown. The Journal of Finance Style Guidelines. February 2017.

## Appendix A. Additional Figures

The appendix contains figures, tables or results that are less relevant but still important enough to be included in the paper. Detailed derivations and proofs also belong to the appendix - not to the main text.



**Figure A1. Regression Plot of Anscombe 1, 2, and 3 - Triple Plot with 1 Caption.** This figure shows a scatter plot (blue) with regression line (orange) of the first (top left), second (top right), and third (bottom) dataset in Anscombe's quartet. The slope coefficient is estimated by OLS. There is no constant added to the model. Mean and standard deviation of  $y$  for all sets are given by 9 and 3.3, respectively.

## Appendix B. Additional Tables

Table BI  
Anscombe's Quartet Long Format

This table presents Anscombe's quartet in long format (ascending from dataset 1 to 4). Column 1 shows the index of the observation. Each dataset consists of 11 observations. Columns 2 and 3 show the  $x$  and  $y$  vector, respectively.

index	x	y
0	8.04	10
1	6.95	8
2	7.58	13
3	8.81	9
4	8.33	11
5	9.96	14
6	7.24	6
7	4.26	4
8	10.84	12
9	4.82	7
10	5.68	5
0	9.14	10
1	8.14	8
2	8.74	13
3	8.77	9
4	9.26	11
5	8.10	14
6	6.13	6
7	3.10	4
8	9.13	12
9	7.26	7
10	4.74	5
0	7.46	10
1	6.77	8
2	12.74	13
3	7.11	9
4	7.81	11

5	8.84	14
6	6.08	6
7	5.39	4
8	8.15	12
9	6.42	7
10	5.73	5
0	6.58	8
1	5.76	8
2	7.71	8
3	8.84	8
4	8.47	8
5	7.04	8
6	5.25	8
7	12.50	19
8	5.56	8
9	7.91	8
10	6.89	8

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**Table BII**  
**Anscombe's Quartet Long Format Landscape**

(Equivalent description as Table BI).

index	x	y
0	8.04	10
1	6.95	8
2	7.58	13
3	8.81	9
4	8.33	11
5	9.96	14
6	7.24	6
7	4.26	4
8	10.84	12
9	4.82	7
10	5.68	5
0	9.14	10
1	8.14	8
2	8.74	13
3	8.77	9
4	9.26	11
5	8.10	14
6	6.13	6
7	3.10	4
8	9.13	12

9	7.26	7
10	4.74	5
0	7.46	10
1	6.77	8
2	12.74	13
3	7.11	9
4	7.81	11
5	8.84	14
6	6.08	6
7	5.39	4
8	8.15	12
9	6.42	7
10	5.73	5
0	6.58	8
1	5.76	8
2	7.71	8
3	8.84	8
4	8.47	8
5	7.04	8
6	5.25	8
7	12.50	19
8	5.56	8
9	7.91	8
10	6.89	8

---

**Table BIII**  
**OLS Regression Results of Anscombe 1**

This table presents the OLS regression output for the first dataset in Anscombe's quartet. Note that  $R^2$  is computed without centering (uncentered) since the model does not contain a constant. The standard errors assume that the covariance matrix of the errors is correctly specified...

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Dep. Variable:	y	R-squared (uncentered):	0.963
Model:	OLS	Adj. R-squared (uncentered):	0.959
Method:	Least Squares	F-statistic:	257.9
Date:	Thu, 15 Apr 2021	Prob (F-statistic):	1.81e-08
Time:	17:59:34	Log-Likelihood:	-22.334
No. Observations:	11	AIC:	46.67
Df Residuals:	10	BIC:	47.07
Df Model:	1		
Covariance Type:	nonrobust		

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	coef	std err	t	P> t	[0.025	0.975]
x	1.2082	0.075	16.059	0.000	1.041	1.376

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Omnibus:	1.155	Durbin-Watson:	2.554
Prob(Omnibus):	0.561	Jarque-Bera (JB):	0.687
Skew:	0.571	Prob(JB):	0.709
Kurtosis:	2.558	Cond. No.	1.00

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## Appendix C. Additional Derivations

$$\frac{\partial Q_T(\tilde{\mathbf{b}})}{\partial \tilde{\mathbf{b}}} = \frac{\partial \mathbf{g}'_T(\tilde{\mathbf{b}})}{\partial \tilde{\mathbf{b}}} \mathbf{W}_{T\mathbf{g}_T(\tilde{\mathbf{b}})} \stackrel{!}{=} 0 \quad (\text{C1})$$

## Guidelines and Tips <sup>4</sup>

### *Formatting* <sup>5</sup>

- Font Size: 12pt.
- Alignment: Justified.
- Line Spacing: 1.5.
- Pre-introduction page numbers should be lowercase Roman, the ones of the main text Arabic.
- Use a table of contents to show sections, subsections etc.
- Use a list of figures and tables to list all the figures and tables in the paper.
- The number of pages of the main text must not exceed 20 pages (appendix excluded). Main figures and tables must be included in the main body. Additional or extensive figures/tables can be included in the appendix.

### *Objects*

- Figures, tables, equations, et cetera have to be discussed in the text.
- Provide a (short) title and a detailed description for all figures and tables. The reader must be able to understand the text without looking at the figure (table) and understand the figure (table) without reading the text. You can refer to the description of previous objects to avoid redundancies (Unkown, 2017). However, the latter does not suit everyone's taste. In doubt, talk to your supervisor.
- In tables, only show numbers that are used in the text with a minimum number of necessary decimal places (Cochrane, 2005). Refer to all numbers of a table in the text ("Column 1 in Table I shows ..." is alright).
- Do only use the L<sup>A</sup>T<sub>E</sub>X (or any other text editor's) title for figures. Hence, export figures without a title in your statistical software.
- If possible, use vector graphics (export figures as .pdf) with transparent background.
- Show compact and not too big objects like figures and tables (combine multiple small figures in a L<sup>A</sup>T<sub>E</sub>X subplot, for example). However, all objects must be readable.

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<sup>4</sup>This section is not part of the final paper.

<sup>5</sup>The formatting rules are only binding for the submission of a Bachelor Thesis to the chair of Statistics, Econometrics and Empirical Economics/Quantitative Methods. Especially the page limit will vary from project to project and needs to be discussed with the responsible supervisor.

- Put all metrics belonging to a figure in the description of the figure rather than the subtitle or similar. Alternatively, provide a separate table with the numbers belonging to a figure or state them within the text.

### *Bibliography (References)*

- References are listed alphabetically. Only references mentioned in the text may be included.
- Papers from journals have to be cited with author(s), publishing year, title of the paper, name of the journal, volume and page numbers.
- Discussion papers have to be cited with author(s), publishing year, title of the paper, name of the institution, and number of the discussion paper.
- For sources from the internet author(s), title, internet address and retrieval date are important. Internet sources are not as trustworthy as written sources, so they should not be used too often.
- Papers from anthologies have to be cited with authors, publishing year, title of the paper, name of the issuer, title of the anthology, page numbers, publisher.
- Books have to be cited with author(s), publishing year, title, and publisher.

### *Text Style*

- Use the first person (“I”) for single author papers. If several authors are involved, use “we” instead of “I”.
- Write in present English even if the action is in the past. For example, “Table I presents ...”, “In Figure 1 we can see ...” (not “... we will see”), “I scrape the data ...”, “I show ... in Section I” and so on. The exception is, when explicitly referring to past events like something that happened during World War II (here you can use past tense). However, it is totally fine to write “Hansen (1982) finds ...” although 1982 is in the past (Cochrane, 2005).
- Avoid passive constructions. For example, write “Figure 1 depicts ...” instead of “... is depicted in Figure 1”.
- Define variables you use.
- Do not refer to objects (figures, tables, equations, ...) before defining them in the text. Ideally, embed equations in sentences instead of introducing them with a colon.

- Use paragraphs (indentation is done automatically here) with a maximum of 12 lines per paragraph (rule of thumb).
- Avoid abbreviations (e.g., “that’s” instead of “that is”).
- Avoid slang (e.g., “tons of” instead of “a lot of”).
- Avoid lists (like this one).
- Do not start a sentence with a variable name (Unkown, 2017).
- Use “%” instead of the word “percent” (Unkown, 2017).
- Use numbers “1”, “2” ... instead of written out numbers “one”, “two”, ... if it improves readability (which is often the case).
- Avoid hyphens in adverb phrases. For example, write “actively managed” instead of “actively-managed” (Unkown, 2017).
- Instead of “e.g.”, write “see for example” in a sentence. However, using “e.g.” in parentheses is all right: “This is a statement (e.g., Example 1, ...)” (Unkown, 2017).
- Write 1980 to 1990 instead of 1980 - 1990 (Unkown, 2017).
- Make references to variables and sources italic (Unkown, 2017). Use capital letters for Variable names following “fischer\_ds\_style\_guide\_2021.pdf”. Generally, use `\textit{}` instead of `\emph{}`: *p*-value, *t*-statistic, *Dummy-Year*...
- Do not use italics on Latin. For example, write “ceteris paribus” rather than “*ceteris paribus*” (Unkown, 2017).
- Usually, you can omit punctuation marks like periods or similar for direct citations to prevent them from appearing twice in a row. For example, Cochrane (2000, sec. 1.4, pg. 23) writes “Insurance pays off exactly when wealth and consumption would otherwise be low you get a check when your house burns down”. This composition also applies if the citation appears in parentheses or (among other things) when finishing a sentence referring to a numbered item in a list like 3.
- Preferably, use American English (e.g., “behavior” instead of “behaviour”). In any case, keep the style consistent.
- Refer to published papers in high-ranking journals if possible.
- Many people prefer to begin all words in titles with a capital letter, except for small filler words like “and”, “or”, “with”, “for”, et cetera. For example, “Literature Overview and Citation” rather than “Literature overview and citation” (compare Section I.A). In any case, keep the caption style consistent throughout the paper for sections, figures, tables, and so on.
- If you employ the `cleveref`<sup>6</sup> package (like in this template), put a comma before

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<sup>6</sup><https://ctan.org/pkg/cleveref>

“and” in enumerations since the package does so by default (e.g., Equation (3), Figure 2, and Table II. For example, write “Mean, median, and standard deviation are higher for the first model specification”.

- If you add a notation glossary (which is usually not necessary), put it after the references.
- If you make use of a colorcode (opening prices are always blue and closing prices are always orange, for example) mention it in the text and (if a glossary exists) put a description after or in the notation glossary. Generally, when choosing colors, it is good practice to use complementary colors and to not forget about readers that suffer from dyschromatopsia (some people have difficulties with red and green, for example).

## *Content*

- Write in Inverted Pyramid Style like journalists do (Cochrane, 2005). Lead to the main result with the minimum amount of information necessary to understand the content. Add further information after that (decreasing in importance).
- Keep it short and avoid redundancies plus unnecessary pieces of text. Greeks and other variable names can be repeated and are excluded from the no redundancies rule (Cochrane, 2005). For example, it is good style to write “Estimated probability  $\hat{p}$  ...” although you already defined  $\hat{p}$ .
- Be precise. It must be possible to replicate the code after reading the paper (Cochrane, 2005).
- For argumentation, use economic terms rather than variables and symbols.
- The simpler the model, the better (Occam’s razor). The less math, the better (Cochrane, 2005).
- Do not (just) describe what you did (first I do this, second I do this ...). Interpret the results and put them into context.
- Use numerical examples to concretize concepts and ideas.
- Mention robustness checks (what happens if you change something) you carried out in footnotes, create a section or put the results in the appendix.
- It is better to write a paper about results that are correct if certain assumptions hold than about a topic that has been shown to not work empirically (unless there is new evidence).
- Do not set up a regression (or a model in general) without a theoretical background

for the exact specification. Otherwise, there is just some stuff on the right hand side to explain the dependent variable.

- When using GMM, remember that moment conditions define parameters.
- Avoid marking different significance levels with asterisks. Statistical significance is a technical piece of information starting a substantial discussion and not the Holy Grail. Furthermore, a  $p$ -value gives all the information needed for checking significance levels of parameters.
- Write “... converges in probability by a Law of Large Numbers (LLN)” instead of “... converges in probability by the Law of Large Numbers (LLN)”. There is no such thing as the one Law of Large Numbers. There are different versions that apply to different contexts.
- Do not (or at least very carefully) talk about relative changes in probability (important for Linear Probability Models, Probit Models, Logistic Regressions, ...), because these changes are often misinterpreted, especially by laymen who might read the paper.
- Be aware of to what extent random sampling is possible in your case (e.g., what is random sampling with regard to countries - philosophical debate).

### *Writing*

- When describing a method, decision, approach, or similar, use the following order: What? - Why? - Comparison with alternatives (Cochrane, 2005).
- Obey the subject - verb - object structure (Cochrane, 2005) and avoid nested (too long) sentences: “People use markets to shift consumption from one period to another. For certain assets, the underlying markets differ in liquidity.” rather than “To shift consumption from one period to another, people use markets which differ in liquidity for certain assets.”
- Avoid technical terms whenever possible (Cochrane, 2005).
- Strive for concreteness in contrast to abstractness (Cochrane, 2005).
- Keep the statement of a sentence and drop the rest. Often, everything before “that” can be deleted (Cochrane, 2005).
- Avoid a stand alone “this”. “This” should always be followed by a substantive. For example, “This model shows ...” instead of “This shows ...” (Cochrane, 2005).
- Be clear about the underlying assumptions and state them. Most importantly, specify the null hypothesis when testing. Power Utility belongs to the setup of a

model and is no assumption (Cochrane, 2005). Frictionless markets, however, is an assumption, for example.

- Remember that it is called “Models in which transaction costs are neglected ...” and not “Models where transaction costs are neglected ...”. “Where” is a local adverb (Cochrane, 2005).

## *Management*

- Consider the coding tips provided by the Markdown file “README.md” in the Code folder even if you do not work with Python<sup>7</sup> and/or PyCharm<sup>8</sup> (in addition to PyCharm, you can open the .md file with an ordinary text editor, for example).
- Use the folder structure of this project template.
- Name papers, books, et cetera using the last name of the main author and the year of publication. For example, “hansen\_1982.pdf”.
- Use the split view in your L<sup>A</sup>T<sub>E</sub>X editor (code left and .pdf file right).
- Define user commands like

– Xe | PDF:

```
xelatex -synctex=1 -interaction=nonstopmode %.tex | "C:/
Program Files (x86)/Adobe/Acrobat Reader DC/Reader/
AcroRd32.exe" %.pdf
```

– Bib | Xe | PDF:

```
bibtex %|xelatex -synctex=1 -interaction=nonstopmode %.
tex | "C:/Program Files (x86)/Adobe/Acrobat Reader DC/
Reader/AcroRd32.exe"=* %.pdf
```

to run multiple commands with one click. (Note that Adobe Acrobat Reader DC is just one software choice to view .pdf files). However, be aware that you only see the warnings of the last command in the chain. It is therefore wise to check the commands one after the other from time to time.

- Set the editor’s spell check accordingly. In Texmaker, for example, click Options -> Configure Texmaker -> Editor and change the spelling dictionary.
- Use the Dark theme for all your software.

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<sup>7</sup><https://www.python.org/>

<sup>8</sup>When using PyCharm (<https://www.jetbrains.com/pycharm/>), enable the scientific mode.

- For a quick start, take online L<sup>A</sup>T<sub>E</sub>X editors like Overleaf<sup>9</sup> into account. However, keep in mind that online solutions are generally less discreet than local projects.
- For proofreading, print out a preliminary version of the paper.

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<sup>9</sup><https://www.overleaf.com/>