Submitted to *Quantitative Economics*

A sample article title

FIRST AUTHOR

First Department of the First Author, University and Second Department of the First Author, University

SECOND AUTHOR

Department of the Second and Third Authors, University

THIRD AUTHOR

Department of the Second and Third Authors, University

The abstract should summarize the contents of the paper. It should be clear, descriptive, self-explanatory and not longer than 150 words. It should also be suitable for publication in abstracting services. Please avoid using math formulas as much as possible.

KEYWORDS. First keyword, second keyword.

JEL CLASSIFICATION. First JEL, second JEL.

First Author: first@somewhere.com

Second Author: second@somewhere.com

Third Author: third@somewhere.com

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1. INTRODUCTION

This template helps you to create a properly formatted LaTeX 2_ε manuscript. Prepare your paper in the same style as used in this sample .pdf file. Try to avoid excessive use of italics and bold face. Please do not use any LaTeX 2_ε or TeX commands that affect the layout or formatting of your document (i.e., commands like `\textheight`, `\textwidth`, etc.).

2. SECTION HEADINGS

Here are some subsections:

2.1 *A subsection*

Regular text.

2.1.1 *A subsubsection*

Regular text.

3. TEXT

3.1 *Lists*

The following is an example of an *itemized* list, two levels deep.

- This is the first item of an itemized list. Each item in the list is marked with a "tick." The document style determines what kind of tick mark is used.
- This is the second item of the list. It contains another list nested inside of it.
  - This is the first item of an itemized list that is nested within the itemized list.
  - This is the second item of the inner list. LaTeX allows you to nest lists deeper than you really should.

This is the rest of the second item of the outer list.

- This is the third item of the list.

The following is an example of an *enumerated* list of one level.

(i) This is the first item of an enumerated list.

(ii) This is the second item of an enumerated list.

The following is an example of an *enumerated* list, two levels deep.

1. This is the first item of an enumerated list. Each item in the list is marked with a "tick." The document style determines what kind of tick mark is used.

2. This is the second item of the list. It contains another list nested inside of it.

   (a) This is the first item of an enumerated list that is nested within.

   (b) This is the second item of the inner list. LaTeX allows you to nest lists deeper than you really should.

   This is the rest of the second item of the outer list.

3. This is the third item of the list.

3.2 *Punctuation*

Avoid unnecessary hyphenation; many hyphenated words can be treated as one or two words. Dashes come in three sizes: a hyphen, an intra-word dash like "U-statistics" or "the time-homogeneous model"; a medium dash (also called an "en-dash") for number ranges or between two equal entities like "1–2" or "Cauchy–

Schwarz inequality"; and a punctuation dash (also called an "em-dash") in place of a comma, semicolon, colon or parentheses—like this.

Generating an ellipsis … with the right spacing around the periods requires a special command.

3.3 *Citation*

Only include in the reference list entries for which there are text citations, and make sure all citations are included in the reference list. Simple author and year cite: Aumann (1987). Multiple bibliography items cite: Peck (1994), Enelow and Hinich (1990), Wittman (1990). Author only cite: Cahuc, Postel-Vinay and Robin. Year only cite: (2006).

4. FONTS

Please use text fonts in text mode, e.g.:

Roman

Italic

Bold

SMALL CAPS

Sans serif

`Typewriter`

Please use mathematical fonts in mathematical mode, e.g.:

$ABCabc123$

$ABCabc123$

$\mathbf{ABCabc123}$

$\boldsymbol{ABCabc123\alpha\beta\gamma}$

$\mathcal{ABC}$

$\mathbb{ABC}$

$\mathsf{ABCabc123}$

$\mathtt{ABCabc123}$

$\mathfrak{ABCabc123}$

Note that `\mathcal, \mathbb` belongs to capital letters-only font typefaces.

5. Notes

Footnotes[1] pose no problem.[2]

6. Quotations

Text is displayed by indenting it from the left margin. There are short quotations

> This is a short quotation. It consists of a single paragraph of text. There is no paragraph indentation.

and longer ones.

> This is a longer quotation. It consists of two paragraphs of text. The beginning of each paragraph is indicated by an extra indentation.

[1] This is an example of a footnote.

[2] Note that footnote number is after punctuation.

This is the second paragraph of the quotation. It is just as dull as the first paragraph.

7. Environments

7.1 *Examples for* `plain`*-style environments*

AXIOM 1. *This is the body of Axiom 1.*

CLAIM 2. *This is the body of Claim 2. Claim 2 is numbered after Axiom 1 because we used* `[axiom]` *in* `\newtheorem`.

THEOREM 7.1. *This is the body of Theorem 7.1. Theorem 7.1 numbering is dependent on section because we used* `[section]` *after* `\newtheorem`.

PROOF. This is the body of the proof of the theorem above. □

THEOREM 7.2 (Title of the Theorem). *This is the body of Theorem 7.2. Theorem 7.2 has additional title.*

LEMMA 7.3. *This is the body of Lemma 7.3. Lemma 7.3 is numbered after Theorem 7.2 because we used* `[theorem]` *in* `\newtheorem`.

FACT. *This is the body of the fact. Fact is unnumbered because we used* `\newtheorem*` *instead of* `\newtheorem`.

PROOF OF THEOREM 7.2. This is the body of the proof of Theorem 7.2. □

7.2 *Examples for* `remark`*-style environments*

DEFINITION 7.4. This is the body of Definition 7.4. Definition 7.4 is numbered after Lemma 7.3 because we used `[theorem]` in `\newtheorem`.

EXAMPLE. This is the body of the example. Example is unnumbered because we used `\newtheorem*` instead of `\newtheorem`.

8. EQUATIONS AND THE LIKE

Only number equations to which there is a subsequent reference. See equations below (1)–(7).

Two equations:

$$C_s = K_M \frac{\mu/\mu_x}{1-\mu/\mu_x} \tag{1}$$

and

$$G = \frac{P_{\text{opt}} - P_{\text{ref}}}{P_{\text{ref}}} 100(\%). \tag{2}$$

Equation arrays:

$$\frac{dS}{dt} = -\sigma X + s_F F, \tag{3}$$

$$\frac{dX}{dt} = \mu X, \tag{4}$$

$$\frac{dP}{dt} = \pi X - k_h P, \tag{5}$$

$$\frac{dV}{dt} = F. \tag{6}$$

One long equation:

$$\begin{aligned} \mu_{\text{normal}} &= \mu_x \frac{C_s}{K_x C_x + C_s} \\ &= \mu_{\text{normal}} - Y_{x/s}\big(1 - H(C_s)\big)(m_s + \pi/Y_{p/s}) \\ &= \mu_{\text{normal}}/Y_{x/s} + H(C_s)(m_s + \pi/Y_{p/s}). \end{aligned} \tag{7}$$

Note that variables made of more than one letter should use command `\mathit`, e.g., $sov = 550$, where sov is sum of votes. Abbreviations used in subscripts or superscripts should use `\mathrm`, e.g., $t_{\max} - t_{\min} = 10$. Operator names should use `\operatorname`, e.g. $\operatorname{AR}(1)$. Also, note that $\emptyset$ symbol is preferred as opposed to $\varnothing$.

TABLE 1. The spherical case ($I_1 = 0$, $I_2 = 0$).

Equil. Points	x	y	z	C	S
L_1	−2.485252241	0.000000000	0.017100631	8.230711648	U
L_2	0.000000000	0.000000000	3.068883732	0.000000000	S
L_3	0.009869059	0.000000000	4.756386544	−0.000057922	U
L_4	0.210589855	0.000000000	−0.007021459	9.440510897	U
L_5	0.455926604	0.000000000	−0.212446624	7.586126667	U
L_6	0.667031314	0.000000000	0.529879957	3.497660052	U
L_7	2.164386674	0.000000000	−0.169308438	6.866562449	U
L_8	0.560414471	0.421735658	−0.093667445	9.241525367	U
L_9	0.560414471	−0.421735658	−0.093667445	9.241525367	U
L_{10}	1.472523232	1.393484549	−0.083801333	6.733436505	U
L_{11}	1.472523232	−1.393484549	−0.083801333	6.733436505	U

Note: This is how table note should be presented. Please do not use asterisks or bold face to denote statistical significance. We encourage authors to report standard errors and coverage sets or confidence intervals.

9. TABLES AND FIGURES

Cross-references to labeled tables: As you can see in Table 1 and also in Table 2.

Sample of cross-reference to figure: Figure 1 shows that it is not easy to get something on paper.

APPENDIX: TITLE

Appendices should be provided in `{appendix}` environment. If there is only one appendix, then please refer to it in text as ... in the Appendix.

APPENDIX A: TITLE OF THE FIRST APPENDIX

If there are more than one appendix, then please refer to it as ... in Appendix A, Appendix B, etc.

TABLE 2. Sample posterior estimates for each model.

				Quantile		
Model	Parameter	Mean	Std. Dev.	2.5%	50%	97.5%
Model 0	β_0	−12.29	2.29	−18.04	−11.99	−8.56
	β_1	0.10	0.07	−0.05	0.10	0.26
	β_2	0.01	0.09	−0.22	0.02	0.16
Model 1	β_0	−4.58	3.04	−11.00	−4.44	1.06
	β_1	0.79	0.21	0.38	0.78	1.20
	β_2	−0.28	0.10	−0.48	−0.28	−0.07
Model 2	β_0	−11.85	2.24	−17.34	−11.60	−7.85
	β_1	0.73	0.21	0.32	0.73	1.16
	β_2	−0.60	0.14	−0.88	−0.60	−0.34
	β_3	0.22	0.17	−0.10	0.22	0.55

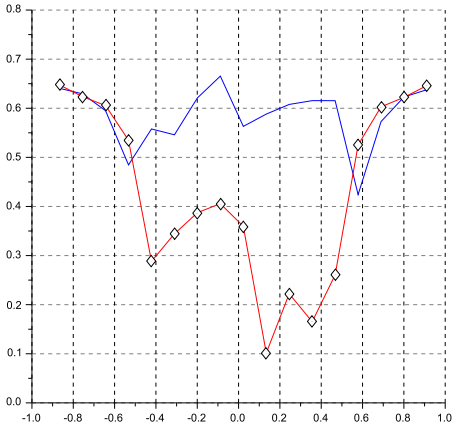

FIGURE 1. Pathway of the penicillin G biosynthesis.

APPENDIX B: TITLE OF THE SECOND APPENDIX

B.1 *First subsection of Appendix B*

Use the standard LaTeX commands for headings in `{appendix}`. Headings and other objects will be numbered automatically.

$$\mathcal{P} = (j_{k,1}, j_{k,2}, \ldots, j_{k,m(k)}). \tag{8}$$

Sample of cross-reference to formula (8) in Appendix B.

REFERENCES

Aumann, R. J. (1987), "Correlated equilibrium as an expression of Bayesian rationality." *Econometrica*, 55, 1–18. [4]

Peck, J. (1994), "Competition in transactions mechanisms: The emergence of competition." Unpublished Manuscript, Ohio State University. [4]

Enelow, J., and M. Hinich, eds. (1990), *Advances in the Spatial Theory of Voting*. Cambridge University Press, Cambridge, U.K. [4]

Wittman, D. (1990), "Spatial strategies when candidates have policy preferences." In *Advances in the Spatial Theory of Voting* (M. Hinich and J. Enelow, eds.), 66–98, Cambridge University Press, Cambridge, U.K. [4]

Cahuc, P., F. Postel-Vinay, and J.-M. Robin (2006), "Supplement to 'Wage bargaining with on-the-job search: Theory and evidence'." *Quantitative Economics Supplemental Material*. [4]