Epistemology

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1.   Introduction

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2.   Generic section

This is a section. This is the section introduction. Below are the subsections.

2.1.   Generic subsection

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2.2.   Subsection with references

References can be appended at the end of a sentence, in parenthesis (Michaillat and Saez 2015). References can be in text: for instance, Michaillat (2012) found this. It's also possible to collate several references to the same author: for instance, Michaillat (2012, 2014) found things.

It is possible to insert a URL: `https://github.com/pmichaillat/latex-paper`.

3.   Section with math

This section displays a number of mathematical expressions to showcase the math fonts used in the template.

3.1. Roman letters

The Roman characters in math are just the same as the characters in the text—but in *italic*. Here are some small letters:

$$a\{p - r \times l\} + \frac{w(g/z + j)}{i(t) + j(t) + k(t) - e^p - x^j} + \frac{h[f] + x^f}{k[y] - e^y + x^y} = f(j)^{6+y} - i^3_{g,j,p} \approx (p_{ji})^5.$$

Here are some capital letters as well:

$$G[p + P^7 - Q] - A_B + L\{j\} = F(X) \to [Y + K] \times Z_f/H - [g_4 - i], \text{ for any } i.$$

The punctuation is also the same in math as in text.

3.2. Greek letters

Here are some small Greek letters in a math display:

$$\alpha^\theta + \gamma^4 + g(a) - \zeta \times \frac{y(\lambda)}{\kappa \cdot k + \sigma - s} \to \nu_\eta = \beta^\epsilon \cdot \delta - \mu + \frac{\xi^4}{\zeta_{ij}} \to m(x) + b^e + \omega.$$

Here are some capital Greek letters in another math display:

$$F(\Psi) - G(\Phi) \times \Delta^{10} = \Sigma \cdot \Omega^2 - \frac{\Lambda_i}{\Theta_j} \cdot \frac{\Gamma(x)}{\Pi(t)}. \tag{1}$$

3.3. Bold characters

In the template it is possible to bold all math characters. Roman characters can be bolded, such as $\boldsymbol{a} + \boldsymbol{D} = \boldsymbol{E}^2 + \boldsymbol{j}/\boldsymbol{i}$. Greek characters can also be bolded, such as $\boldsymbol{\alpha} + \boldsymbol{\Delta} = \boldsymbol{\epsilon}^2 + \boldsymbol{\Lambda}/\boldsymbol{\Phi}$. It is also possible to bold digits: $1 + 2 \neq \mathbf{1} + \mathbf{2}$. Finally, it is possible to bold calligraphic letters: $\mathcal{C} + \mathcal{E} - [\mathcal{X} + \mathcal{Y}]$.[1]

3.4. Some theorems

Here is a proposition with some more math:

PROPOSITION 1. *Lorem ipsum dolor sit amet, consectetur adipiscing elit:*

$$\sum_k \boldsymbol{S}_{k_x}(z) \approx \frac{S(z)^x}{k/23 - \zeta\gamma[45 - S(z)] + \ln(y) - j^2 + x(l)}. \tag{2}$$

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[1]Blackboard-bold letters are already "bold" so they cannot be bolded further.

PROOF. Here is the proof to the proposition. Donec commodo justo a eros malesuada, eget vulputate tortor accumsan. Sed ac pulvinar nulla. Etiam quis felis dapibus, vulputate metus eu, finibus nunc. Sed vel sodales dui. Nam venenatis dolor non orci tempus fermentum. Vivamus sodales justo a ligula cursus aliquet. Sed fringilla nunc vitae justo finibus, id placerat lectus sodales. □

Now here is a lemma:

LEMMA 1. *Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat:*

$$(3) \qquad z^* = \int_0^\infty \alpha(i) \cdot \frac{1-\beta}{1-\alpha(i)\beta} \, di.$$

And here is a corollary following the lemma:

COROLLARY 1. *Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua:*

$$\mathbb{E}(N(z^*)) \approx \frac{1-\mathbb{P}(\alpha\pi)}{1-\pi} - \frac{f(y)}{z(p)^*} + P(\Gamma).$$

Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

4. Section with graphs

Here is a section with a variety of graphs.

4.1. Subsection with graphs at the top of the page

A simple two-panel graph is on figure 1. It will be placed at the top of the page, just about here. Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio, cumque nihil impedit, quo minus id, quod maxime placeat, facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet, ut et voluptates repudiandae sint et molestiae non recusandae.

4.2. Subsection with references to figures and panels

As usual with LaTeX, it is easy to refer to a figure: see figure 1. It is possible to refer to a specific panel in a figure, for instance figure 1A or figure 1B. Its also possible to refer to the entire figure, for instance figure 1 or figure **??**. It is also possible to refer to a panel within a figure by itself, for instance panel A or panel B in figure 1.

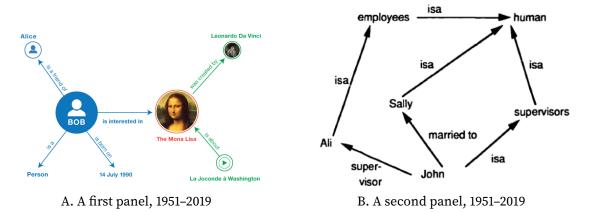A. A first panel, 1951–2019   B. A second panel, 1951–2019

FIGURE 1. Graph with two panels

5. A section with cross-references

As usual, it is possible to reference an equation, such as equation (3). It is also possible to reference a section, such as section 4.

6. Conclusion

At vero eos et accusamus et iusto odio dignissimos ducimus, qui blanditiis praesentium voluptatum deleniti atque corrupti, quos dolores et quas molestias excepturi sint, obcaecati cupiditate non provident, similique sunt in culpa, qui officia deserunt mollitia animi, id est laborum et dolorum fuga. At vero eos et accusamus et iusto odio dignissimos ducimus, qui blanditiis praesentium voluptatum deleniti atque corrupti, quos dolores et quas molestias excepturi sint.

References

Michaillat, Pascal. 2012. "Do Matching Frictions Explain Unemployment? Not in Bad Times." *American Economic Review* 102 (4): 1721–1750. `https://doi.org/10.1257/aer.102.4.1721`.

Michaillat, Pascal. 2014. "A Theory of Countercyclical Government Multiplier." *American Economic Journal: Macroeconomics* 6 (1): 190–217. `https://doi.org/10.1257/mac.6.1.190`.

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