Example Paper[*]

Author One[†] and Author Two[‡]

OCTOBER 11, 2023

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

JEL-Classification: ...

Keywords: ...

---

1 — Introduction

Hi and welcome to my default paper template. I tried to make the theme minimal and beautiful while able to do all the things that I want it to do. These include making it easy to make figures/tables with notes; have powerful math commands; have nice readable typography; make co-authoring in a document easy; have a nice looking bibliography; and make appendices easy.**Kyle:** I'm including this comment for coauthors. If I switch above to `togglefalse`, this will dissapear. I'll show off these things, but make sure to check the source code alongside to see how simple it is to typset with this.

See below for Theorem 1, the regression specification (Equation 1), Table 1, Figure 1, appendix Table 2. Of course, make sure to touch up on your micro theory with Mas-Colell et al. (1995). I also provide a set of colors: Navy, Teal, Purple, Cranberry, Orange.

2 — Highlights

2.1. Math Commands

Theorem environments look nice. There are the following environments and their numbering resets automatically for appendices: `theorem`, `proposition`, `assumption`, `example`, `lemma`, `corollary`, `definition`, `remark`

Theorem 1 (Example Theorem). This is an example theorem

$$\hat{\beta} = \frac{\sum_\ell e_\ell z_\ell y_\ell^\perp}{\sum_\ell e_\ell z_\ell x_\ell^\perp}$$

Jibberish math to show off symbols:

$$y = f(X) + \varepsilon = X\beta + \psi_i + \nu_t + w_{i,t} + \varepsilon_{i,t} \tag{1}$$

I've included a file `math.sty` that has a set of math operators that I find useful.[1]

---

1.   Credit to https://pascalmichaillat.org/d3/ for his math commands package which I took almost all of this from.

The command `\E[optional]{optional}{optional}` now lets you specify subscript, the inner term, and a second bracket to do conditional expectation. All three are optional and `\expec` is a alias.

$$\mathbb{E} \quad \mathbb{E}_i \quad \mathbb{E}[X_i] \quad \mathbb{E}_i[X_i] \quad \mathbb{E}[X_i \mid n] \quad \mathbb{E}_i[X_i \mid n]$$

`\P`, `\prob`, `\cov`, and `\var` work the same way too:

$$\mathbb{P} \quad \mathbb{P}_i \quad \mathbb{P}[X_i] \quad \mathbb{P}_i[D_i] \quad \mathbb{P}\big[\bar{X}_n > \bar{X} \mid \mu = \mu_0\big] \quad \mathbb{P}_{\mathcal{F}}[X_i \mid D_i = 1]$$

$$\mathrm{Cov}\,(X_n, Y_n) \quad \mathrm{Var}_i(\bar{X}_n)$$

`\one` does an indicator. Same as above, but no conditional:

$$\mathbb{1}\,[X_i > 0] \quad (Y_i, D_i) \perp\!\!\!\perp X_i$$

We have `\aslim`, `\plim`, and `\convd` for convergence symbols. There's also `\iid`. Examples:

$$\bar{x}_n \overset{as}{\to} \mu \quad \bar{x}_n \overset{p}{\to} \mu \quad \bar{x}_n \overset{d}{\to} N(0,1)$$

$$X_i \overset{iid}{\sim} N(0,1)$$

To wrap things in automatically scaling wrappers, can use `\bp` for parenthesis, `\bc` for curly braces, and `\bs` for square brackets:

$$(y_i) \quad \{y_i\} \quad [y_i]$$

Similar to expectations, I have 'upgraded' `\min`, `\inf`, `\liminf`, `\max`, `\sup`, and `\limsup` commands to use the optional '[]' for subscript:

$$\min_i\{x_i\} \quad \inf_i\{x_i\} \quad \liminf_{n\to\infty}\{x_i\}$$

$$\max_i\{x_i\} \quad \sup_i\{x_i\} \quad \limsup_{n\to\infty}\{x_i\}$$

2.2. Tables

For tables, I use the `tabular` and `booktabs` packages. For table and figure notes, I use a custom `\note` command. It uses `\parbox` under the hood. You can use it in one of of four ways:

1. `\note{text}`
2. `\note[Notes.]{text}`
3. `\note{0.6\textwidth}{text}`
4. `\note[Notes.]{0.6text}`

In addition, I use the `adjustbox` package for resizing figures/tables. It automatically scales the figure/table proportionally, so things look right. For example, here's a table that's too wide. I use the `adjustbox` package to fix it.

Table 1 — Table Too Wide (adjustbox)

Year	N	% Urban	Market Access		Urban Weekly Wage		Nonurban Weekly Wage	
			Mean	SD	Mean	SD	Mean	SD
1940	16,875,829	0.66	10,708.21	14,819.55	33.22	19.66	25.23	16.56
1950	67,790	0.69	23,166.06	26,600.85	70.05	32.70	58.27	29.24
1960	1,338,491	0.66	40,328.17	45,385.47	124.11	77.55	99.37	59.01
1970	277,951	0.75	65,373.07	68,048.88	205.42	137.80	165.61	104.49
1980	1,907,836	0.73	73,223.43	74,906.62	408.83	284.44	340.82	220.68
1990	2,257,874	0.68	224,312.50	168,933.04	711.77	574.58	550.26	392.90
2000	2,581,741	0.73	288,195.77	199,100.92	1,010.36	1,022.77	754.10	649.57
2010	530,359	0.76	273,754.31	195,220.04	1,306.70	1,281.34	972.40	817.94

Notes. Weekly wage is reported in 2015 $.

Figures also use the `\note` and the `adjustbox` package. Here's an example figure:

Figure 1 — Event-timing
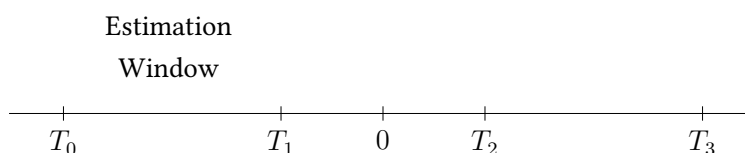
Notes. This is an example figure in the paper

References

Mas-Colell, Andreu, Michael Dennis Whinston, Jerry R Green et al. 1995. *Microeconomic theory*. Volume 1. Oxford university press New York.

A — Additional Results

The appendix will automatically start numbering tables, figures, and theorem-like environments using the appendix section \Alph (e.g. Table 2).

A.1. Regression Results

In this table example, the table is narrower than textwidth, so I adjust the \note width.

Table 2 — Regression Results

	Dependent variable: Overall Rating	
	(1)	(2)
Handling of Complaints	0.692*** (0.149)	0.682*** (0.129)
No Special Privileges	−0.104 (0.135)	−0.103 (0.129)
Opportunity to Learn	0.249 (0.160)	0.238* (0.139)
Performance-Based Raises	−0.033 (0.202)	
Too Critical	0.015 (0.147)	
Advancement	11.011 (11.704)	11.258 (7.318)
Observations	30	30
Adjusted R^2	0.656	0.682

Notes. Using R base dataframe attitude. dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.