

# Article Template

Sim Jun Jie

July 7, 2023

## Abstract

This is an abstract. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

## 1 Math Environments

**Definition 1** (DefinitionName). This is a definition.

$$x^n + y^n = z^n \tag{2}$$

**Proposition 3.** [1] *This is a proposition.*

**Lemma 4.** *This is a lemma.*

**Theorem 5.** *This is a theorem.*

*Proof.* Here is a proof of the theorem. □

---

**Algorithm 6:** This is an algorithm.

---

**Input:** Some inputs  
**Output:** Some outputs  
**Initialization:** Some variables

```
1 while condition not met do
2   |   Some code;
3   |   Some more code;
4 end
5 for  $i = 0$  to  $k$  do
6   |   if some condition holds then
7   |   |   Do some magic;
8   |   else
9   |   |   return  $m$ ;
10  |   end
11 end
```

---

$$1 + 1 = 2 \tag{7}$$

	col 1	col 2	col 3	col 4
row 1	(1, 1)	(1, 2)	(1, 3)	(1, 4)
row 2	(2, 1)	(2, 2)	(2, 3)	(2, 4)
row 3	(3, 1)	(3, 2)	(3, 3)	(3, 4)

Table 1: This is a table.

	A	B	C
I	1	2	3
J	4	5	6
K	7	8	9

Table 2: This is a Tikz Red Box Table

**Example 8.** This is an example.

**Example 9.** This is a second example.

$$E = mc^2 \tag{10}$$

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 bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetur adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta vehicula.

## 2 Subfiles

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

Suspendisse vel felis. Ut lorem lorem, interdum eu, tincidunt sit amet, laoreet vitae, arcu. Aenean faucibus pede eu ante. Praesent enim elit, rutrum at, molestie non, nonummy vel, nisl. Ut lectus eros, malesuada sit amet, fermentum eu, sodales cursus, magna. Donec eu purus. Quisque vehicula, urna sed ultricies auctor, pede lorem egestas dui, et convallis elit erat sed nulla. Donec luctus. Curabitur et nunc. Aliquam dolor odio, commodo pretium, ultricies non, pharetra in, velit. Integer arcu est, nonummy in, fermentum faucibus, egestas vel, odio.

### 3 Citations and References

You can cite stuff with autocite [2] and [1]. Combined citations look like this [3, 4]. To cite the author, use citeauthor Qwerty. The complete citation can be printed with fullcite O P Qwerty. “History of the Goofy Layout of Keyboards”. MA thesis. Podunk IN, 1996.

Use cref to refer to theorems-like environments.

- An equation I want to cref Equation 2.
- A definition I want to cref Definition 1.
- A proposition I want to cref Proposition 3.
- A lemma I want to cref Lemma 4.
- A theorem I want to cref Theorem 5.
- An algorithm I want to cref Algorithm 6.
- An example I want to cref Example 8.
- A line of code I want to cref Algorithm 6 Line 3.

Using nameref will print the name of the theorem-like environment DefinitionName.

Note that autoref does not work properly. There is a autoref warning “No autoref name for ‘mycounter’” occurs. The recommended fix would be to rename counters. See <http://tex.stackexchange.com/questions/256672/autoref-does-not-seem-to-be-working-properly> for details. However, using cref seems to be simpler.

### 4 Images



## Reference

- [1] James Tetazoo. *A brief guide to recreational pyromania*. Available at <http://www.blowinglotsofweirdstuffup.com/guide.html> (2005/06/12).
- [2] Arthur B Cummings, David Eftekhary, and Frank G House. “The accurate determination of college students’ coefficients of friction”. In: *Journal of Sketchy Physics* 13.2 (2003), pp. 46–129.
- [3] I J Kuss. *On the Importance of Kissing Up to Your Boss*. 5th ed. Cambridge MA: Dilbert Books, 1995.
- [4] Tom Upsilon. “Obscure Greek letters and their meanings in mathematics and the sciences”. In: *Proceedings of the seventh international trivia conference*. Ed. by V W Xavier. Philadelphia PA: Last Resort Publishers, 1987, pp. 129–158.
- [5] O P Qwerty. “History of the Goofy Layout of Keyboards”. PhD thesis. Podunk IN, 1996.
- [6] O P Qwerty. “History of the Goofy Layout of Keyboards”. MA thesis. Podunk IN, 1996.
- [7] Gagan Aggarwal and Jason D. Hartline. “Knapsack auctions”. In: *Proceedings of the 17th Annual ACM-SIAM Symposium on Discrete Algorithms*. New York: Association for Computing Machinery, 2006, pp. 1083–1092.
- [8] Robert Swearingen. *Morpholoty and syntax of British sailors’ English*. Tech. rep. New York NY, 1985.
- [9] J Mentor. “Behavior of small animals on fire”. Unpublished Manuscript. 2012.