群交流问题汇总

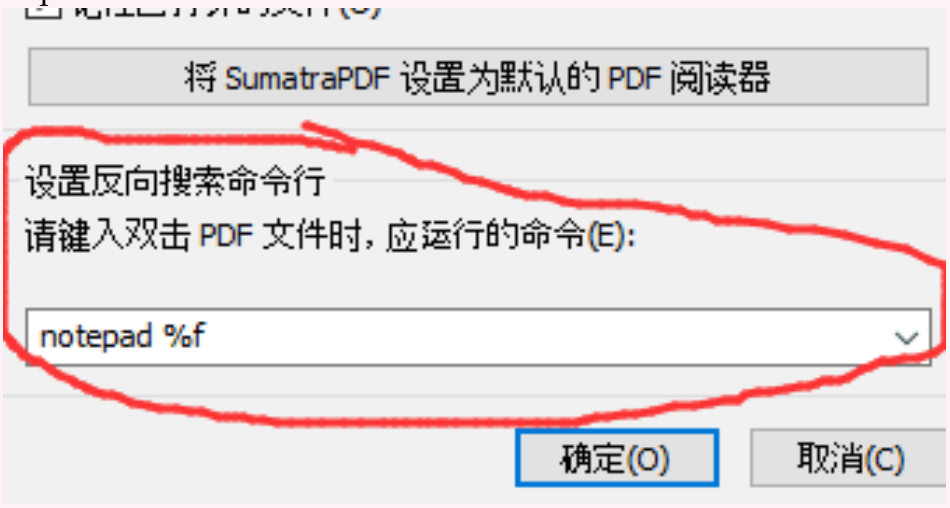
LaTeX 技术交流 5000 人群

2017 年 11 月 3 日

目录

1. 20171028

Q 1.1 请问我刚安装的 TL2017+texstudio，编译预览，为什么无法用 ctrl+ 单击跳转到代码处？电脑默认的 pdf 阅读器是 adobe acrobat DC，谢谢! 现在加了一个 sumartpdf。



这里要添加什么命令才可以呢？

A: `"D:\Programfiles\texstudio-2.12.4\texstudio.exe" "%f" -line %l`

Q 1.2 用 TeX 写实验报告为什么 section 上下的空间很大？

A: 你去看看 section 的定义就知道了，间距都可以重新设置。

Q 1.3 此数学符号 $\lim\limits_{\substack{n\to\infty \\ m\to\infty}}$ 怎么敲打？

A: `\lim\limits_{n\to\infty\atop m\to\infty}`

Q 1.4 我试着用 figure 和 caption 环境，结果表格这些总是跑掉，怎么办?

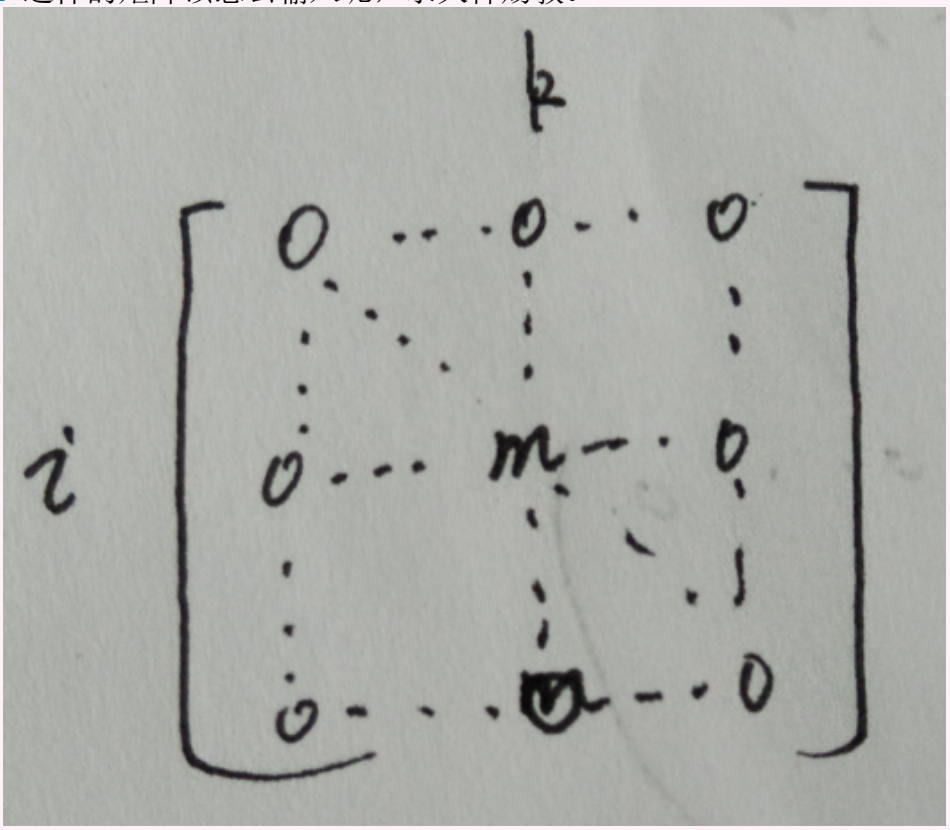
A: “总是跑掉”用了`\begin{figure}[hbt!]`吗？那个感叹号不能少。

2. 20171102

Q 2.1 左引号显示不对，怎么办？

A: 用反撇号`。或者直接用 unicode。

Q 2.2 这样的矩阵该怎么输入呢，求大神赐教。



A: 可以一个三阶矩阵套一个三阶矩阵，

$$\begin{array}{c} \\ j \end{array} \begin{array}{c} \begin{array}{ccccc} & & i & & \end{array} \\ \begin{bmatrix} 0 & \cdots & 0 & \cdots & 0 \\ \vdots & \ddots & \vdots & & \vdots \\ 0 & \cdots & m & \cdots & 0 \\ \vdots & & \vdots & \ddots & \vdots \\ 0 & \cdots & 0 & \cdots & 0 \end{bmatrix} \end{array}$$

```
\[
\begin{matrix}
& i& \\
j& \left[ \begin{matrix}
0& \cdots& 0& \cdots& 0\\
\vdots& \ddots& \vdots& & \vdots\\
0& \cdots& m& \cdots& 0\\
\vdots& & \vdots& \ddots& \vdots\\
0& \cdots& 0& \cdots& 0\\
\end{matrix} \right]&
\end{matrix}
\]
```

也可以二阶矩阵套三阶矩阵。

$$\begin{matrix}
& & i & & \\
& \begin{bmatrix}
0 & \cdots & 0 & \cdots & 0 \\
\vdots & \ddots & \vdots & & \vdots \\
0 & \cdots & m & \cdots & 0 \\
\vdots & & \vdots & \ddots & \vdots \\
0 & \cdots & 0 & \cdots & 0
\end{bmatrix} \\
j &
\end{matrix}$$

```
\[
\begin{matrix}
&i\\
j&\left[ \begin{matrix}
0&\cdots&0&\cdots&0\\
\vdots&\ddots&\vdots&&\vdots\\
0&\cdots&m&\cdots&0\\
\vdots&&\vdots&\ddots&\vdots\\
0&\cdots&0&\cdots&0\\
\end{matrix} \right]
\end{matrix}
\]
```

还可以用边界矩阵环境 bordermatrix。

$$\begin{array}{c} \\ j \end{array} \begin{array}{c} \begin{array}{ccccc} & & i & & \end{array} \\ \begin{pmatrix} 0 & \cdots & 0 & \cdots & 0 \\ \vdots & \ddots & \vdots & & \vdots \\ 0 & \cdots & m & \cdots & 0 \\ \vdots & & \vdots & \ddots & \vdots \\ 0 & \cdots & 0 & \cdots & 0 \end{pmatrix} \end{array}$$

```
\[
\bordermatrix{
&      &        & i      & &        \cr
& 0      & \cdots & 0      & \cdots & 0      \cr
& \vdots & \ddots & \vdots & & \vdots \cr
  j & 0      & \cdots & m      & \cdots & 0      \cr
& \vdots &   & \vdots & \ddots & \vdots \cr
& 0      & \cdots & 0      & \cdots & 0
}
\]
```

可以参考http://blog.sina.com.cn/s/blog_5e16f1770102dqp2.html.

Q 2.3 发现 latex2e sources 里面对于很多标准宏包的好多参数和尺寸说明的相当详细，对于想修改那些常见命令环境或者作为参考很有帮助。命令行运行 texdoc source2e 即可打开。虽说那个 latex2e sources 有不少源码，不过看起来也不费劲，排的算是很精校了。

A: 那个是用 docstrip 宏包排版的，专门处理代码和注释。

Q 2.4 在 LaTeX 中，表格与上下方文字距离过大怎么调整！

A: 试试 array 宏包的\extratabsurround，设置一下合适的间距。

Q 2.5 请问 word 的小四、五号字对应 LaTeX 多少 pt 呢？

A: 铅字时代的小四和五号是 12pt 和 10.5pt。word 时代就是把上面的 pt 换成 bp。

Q 2.6 有没有人知道如何把代码统一缩进啊？用的 lstlisting。

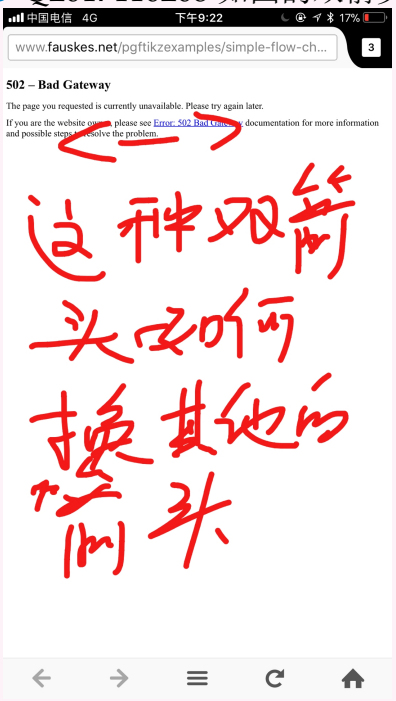
A: 你去看文档就知道 listings 有个 basic style 的设置。比如

```
\lstset{% general command to set parameter(s)
basicstyle=\ttfamily\fontsize{9pt}{12pt}\selectfont,
keywordstyle=\color{blue}\bfseries,
commentstyle=\color{gray},
showstringspaces=false,
xleftmargin=1cm}
```

Q 2.7 单双栏混排通栏公式怎么搞？

A: 有 widetext 和 cuted 两个宏包可供选择。单栏公式可以，但顺序还是不行。这个帖子讨论了类似的问题http://latex.org/forum/viewtopic.php?t=2770.

Q 2.8 Q2017110208 如图的双箭头如何更换箭头形状?



A: 可以直接选择合适的指令，比如

\longleftrightarrow	⟷
\Longleftrightarrow	⟺
\leftrightarrow	↔
\Leftrightarrow	⇔
\rightleftharpoons	⇌

使用 Tikz 绘图时可以指定箭头形状。

16.4.4 Defining Shorthands

It is often desirable to create "shorthands" for the names of arrow tips that you are going to use very often. Indeed, in most documents you will only need a single arrow tip kind and it would be useful that you could refer to it just as `>` in your arrow tip specifications. As another example, you might constantly wish to switch between a filled and a non-filled circle as arrow tips and would like to use `*` and `o` are shorthands for these case. Finally, you might just like to shorten a long name like `Computer Modern Rightarrow` down to just, say `To` or something similar.

All of these case can be addressed by defining appropriate shorthands. This is done using the following handler:

Key handler ⟨*key*⟩`/.tip=`⟨*end specification*⟩

Defined the ⟨*key*⟩ as a name that can be used inside arrow tip specifications. If the ⟨*key*⟩ has a path before it, this path is ignored (so there is only one "namespace" for arrow tips). Whenever it is used, it will be replaced by the ⟨*end specification*⟩. Note that you must *always* provide (only) an end specification; when the ⟨*key*⟩ is used inside a start specification, the ordering and the meaning of the keys inside the ⟨*end specification*⟩ are translated automatically.


```
\tikz [foo /.tip = {Stealth[sep]. »}]
  \draw [-foo] (0,0) -- (2,0);
```



```
\tikz [foo /.tip = {Stealth[sep] Latex[sep]},
       bar /.tip = {Stealth[length=10pt,open]}]
  \draw [-{foo[red] . bar}] (0,0) -- (2,0);
```

In the last of the examples, we used `foo[red]` to make the arrows red. Any options given to a shorthand upon use will be passed on to the actual arrows tip for which the shorthand stands. Thus, we could also have written `Stealth[sep,red] Latex[sep,red]` instead of `foo[red]`. In other words, the "replacement" of a shorthand by its "meaning" is a semantic replacement rather than a syntactic replacement. In particular, the ⟨*end specification*⟩ will be parsed immediately when the shorthand is being defined. However, this applies only to the options inside the specification, whose values are evaluated immediately. In contrast, which actual arrow tip kind is meant by a given shorthand used inside the ⟨*end specification*⟩ is resolved only up each use of the shorthand. This means that when you write

```
dup /.tip = >
```

and then later write

```
> /.tip = whatever
```

then `dup` will have the effect as if you had written `whatever[]whatever[]`. You will find that this behaviour is what one would expect.

There is one problem we have not yet addressed: The asymmetry of single letter arrow tips like `>` or `)`. When someone writes


```
\tikz \draw [<->] (0,0) -- (1,0);
```

we rightfully expect one arrow tip pointing left at the left end and an arrow tip pointing right at the right end. However, compare


```
\tikz \draw [>->] (0,0) -- (1,0);
```



```
\tikz \draw [Stealth-Stealth] (0,0) -- (1,0);
```

In both cases, we have *identical* text in the start and end specifications, but in the first case we rightfully expect the left arrow to be flipped.

The solution to this problem is that it is possible to define two names for the same arrow tip, namely one that is used inside start specifications and one for end specifications. Now, we can decree that the "name of `>`" inside start specifications is simply `<` and the above problems disappear.

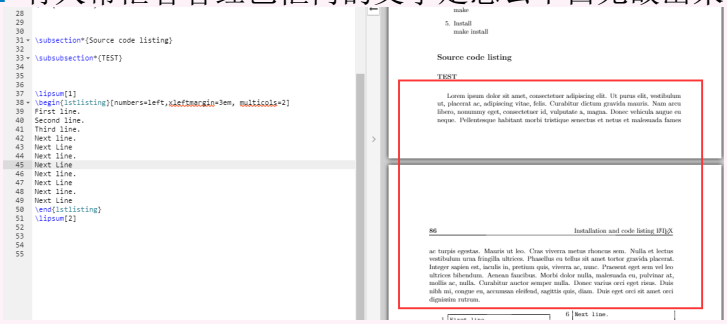
To specify different names for a shorthand in start and end specifications, use the following syntax: Instead of ⟨*key*⟩, you use ⟨*name in start specifications*⟩`-`⟨*name in end specifications*⟩. Thus, to set the `>` key correctly, you actually need to write

3. 20171103

Q 3.1 我想把源码加进 appendix 里面，双栏，请问有没人能指导一下？

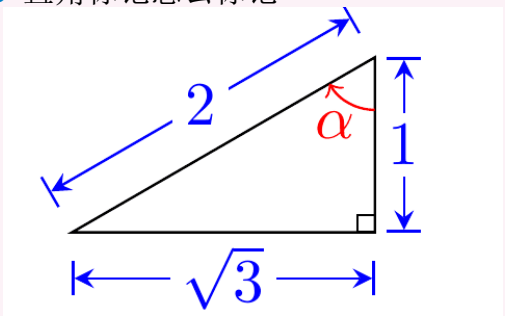
A: fancyvrb package 或者 minipage。参见https://tex.stackexchange.com/questions/321750/listing-source-code-in-two-columns

Q 3.2 有人帮忙看看红色框内的文字是怎么平白无故出来的吗？



A: 你不是写了 lipsum 么，它是用来生成随机文本的。

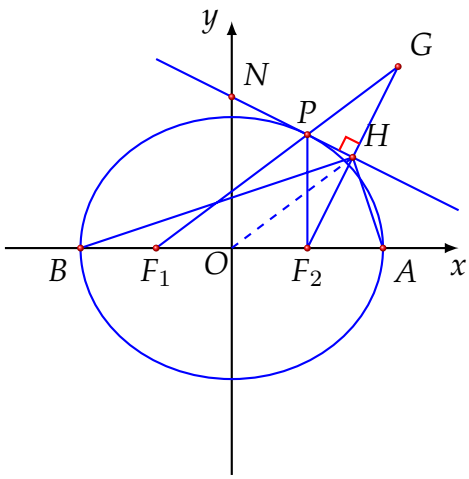
Q 3.3 直角标记怎么标记？



A:

```
\newcommand{\chuizhi}[2]
 {\draw[thick,red]($ (#1)!0.15!(#2) $)
  coordinate(c1)--($ (c1)!1!-90:(#1) $)coordinate(c2)--($ (c2)!1!-90:(c1) $);}
\begin{tikzpicture}
%画直角坐标系
\draw[thick,-latex](-3,0)--(3,0)node[below]{$ x $};
```

```
\draw[thick,-latex](0,-3)--(0,3)node[left]{$ y $};
%画椭圆
\draw[thick,blue](2,0)arc(0:360:2 and 1.732);
%定义坐标
\coordinate[label=above:$ P $](P)at(2*cos 60,1.732*sin 60);
\coordinate[label=below:$ F_1 $](f1)at(-1,0);
\coordinate[label=below:$ F_2 $](f2)at(1,0);
\coordinate[label=225:$ B $](B)at(-2,0);
\coordinate[label=-45:$ A $](A)at(2,0);
\coordinate[label=45:$ N $](N)at(0,2);
\coordinate[label=35:$ H $](H)at($ (N)!(f2)!(P) $);
%找交点
\tkzInterLL(f1,P)(f2,H) \tkzGetPoint{G}
\coordinate[label=45:$ G $](g)at(G);
%画切线
\draw[thick,blue,domain=-1:3]plot(\x,{2-(1/2)*\x});
%连线
\draw[thick,blue](B)--(H)(f1)--(g)(f2)--(g)(A)--(H)(f2)--(P);
\draw[thick,blue,dashed](0,0)--(H);
%标记原点
\node at (-.2,-.2){$ O $};
%画直角符号
\chuizhi{H}{g}
%\draw[thick,red]($ (H)!0.15!(g) $)
coordinate(c1)--($ (c1)!1!-90:(H) $)coordinate(c2)--($ (c2)!1!-90:(c1) $);
%画点
\foreach \x in {P,f1,f2,B,A,N,H,g}
\shade[ball color=red](\x)circle(1.3pt);
\end{tikzpicture}
```



Q 3.4 Asymptote 画图怎么插入 tex 里？还是只能插图片，不能插代码？

A:

```
\usepackage{asymptote}
\begin{document}
\begin{asy}
asymptote 代码写这里
\end{asy}
\end{document}
```

可是必须先 pdflatex，再执行 asymptote，再执行 pdflatex。建议先生成 pdf 再插入，方便调试。尤其当你的 tex 文件很大的时候，比如是一本书，为了调试个图片代码，不得不把整本书编译一下……

Q 3.5 align* 环境上下的空隙怎么调啊？上面倒是好了，下面的还是太大。

A: 可以修改 LaTeX 预定义的垂直间距命令的值来调整。

垂直间距设置命令	说明	默认值
\abovedisplayshortskip	短公式与上方文本间距	0pt plus 3pt
\abovedisplayskip	长公式与上方文本间距	11pt plus 3pt minus 6pt
\belowdisplayshortskip	短公式与下方文本间距	6.5pt plus 3.5pt minus 3pt
\belowdisplayskip	长公式与下方文本间距	11pt plus 3pt minus 6pt

如果行间公式的左端位于上方文本末端的右侧，则该公式被称为短公式；否则就是长公式。通常，短公式的上方已经有将近一行的空白，所以它与上方文本间距的默认值为 0pt，与下方文本间距的默认值也比长公式要窄些。举例如下。

短公式为

$$f(x) = 2\sin(\alpha x + \beta) - 3\cos(\alpha x + \beta)$$

下面同样的公式，但它的左端位于本行文本末端的左侧，因此变为长公式

$$f(x) = 2\sin(\alpha x + \beta) - 3\cos(\alpha x + \beta)$$

从以上两个内容完全相同的行间公式可以看出，短公式与上文的实际垂直间距明显要比长公式窄。对长、短公式分别设置不同的上下文间距，其目的就是使长、短公式与上下文之间的垂直间距看起来均匀一致，基本相等。

如果在正文中使用 \small 或 \footnotesize 字体尺寸命令，表 8.8 中 4 条垂直间距设置命令的默认值将会相应减小，而使用其他字体尺寸命令并不会改变。

可根据需要，使用长度赋值命令，例如 \abovedisplayskip=8pt，修改行间公式与上下文之间的距离。

索引