Getting nice tables in the text

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Tables is usually the most difficult thing to do properly in LaTeX. It is very hard to cover everything needed to get nice tables in your document, so if you feel, that you have not found your answers in this document, please refer to this book.

1 Simple table usage

Here I will give two examples of table making. One is using the internal LaTeX table-making framework. Another is using a `booktabs` package, which seems to provide better looking tables.

First column	Second column	3rd column
1	2	3
1	2	3

Table 1: A table with default separators.

First column	Second column	3rd column
1	2	3
1	2	3

Table 2: The same table, just using booktabs package and the separators, which are provided by this package.

As you can see, Table 2 looks far better, because of different spacing and line widths. The tables were produced using the code shown bellow:

```
1  \begin{table}[h]
2      \centering
3      \begin{tabular}{ccc}
4          \hline
5          First column & Second column & $\mathrm{3^{rd}}$ column
```

```
  6          \tabularnewline\hline
  7          1 & 2 & 3
  8          \tabularnewline
  9          1 & 2 & 3
 10          \tabularnewline\hline
 11      \end{tabular}
 12      \caption{A table with default separators.}
 13      \label{tab:table1}
 14 \end{table}
```

```
  1 \begin{table}[h]
  2      \centering
  3      \begin{tabular}{ccc}
  4          \toprule
  5          First column & Second column & $\mathrm{3^{rd}}$ column
  6          \tabularnewline\midrule
  7          1 & 2 & 3
  8          \tabularnewline
  9          1 & 2 & 3
 10          \tabularnewline\bottomrule
 11      \end{tabular}
 12      \caption{The same table, just using booktabs package and the
 13          separators, which are provided by this package.}
 14      \label{tab:table2}
 15 \end{table}
```

2 Multiple lines in table cells

The basic method of constructing tables which was covered in the previous section is good only if you do not need to specify the width of the columns and you do not need to break the text inside a cell.

Suppose we add one more column into our table and make use of the ability in provided by the array package to get any environments working inside a cell. To get more information on this please refer to this book.

```
  1 \begin{table}[h]
  2      \centering
  3      \caption{Table which shows the usage of getting various
              environments working inside a column.}
```

Table 3: Table which shows the usage of getting various environments working inside a column.

First column	Second column	3rd column	4th column
1	2	δ	4
1	2	ϵ	4

```
4    \begin{tabular}{>{\centering}m{1.4cm} >{\centering}p{1.4cm} >{$}
         c<{$} c}
5      \toprule
6      First column & Second column & \mathrm{3^{rd}}\text{ column}
             & $\mathrm{4^{th}}$ column
7      \tabularnewline\midrule
8      1 & 2 & \delta & 4
9      \tabularnewline
10     1 & 2 & \epsilon & 4
11     \tabularnewline\bottomrule
12   \end{tabular}
13   \label{tab:table4}
14 \end{table}
```

3 Tables in documents with more than one column

Usually scientific journals use two-columns text layout, which sometimes complicates float placement inside text. This is because not all figures can be made narrow enough to fit into one column of text and if it needs to be larger, then we get some nasty overlapping, which is the least we want.

The "trick" there is to use a 'stared' version of the `table` environment (ie. `table*`). However, this has some limitations as the table float then can be added only to the top of the page. A package `stfloats` seems to offer slightly more flexibility over the placement as it provides means to put the float on the bottom of the page, however, the float still can not be placed in the middle of the page.

In my opinion these options are the only one which look really good, so I do not see any limitations here, it is just it is slightly harder to deal with such floats than with simple floats.

Because I need more text, I will insert some dummy text using a package `blindtext` and command `\blindtext`.

——————— **Dummy text start**

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus

Table 4: A table in table* environment to span over the whole page.

First column	Second column	3rd column	4th column
1	2	δ	4
1	2	ϵ	4

placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

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——————— **Dummy text finish**

The source code for the table 4 is shown bellow:

```
\begin{table*}[tpb]
    \centering
    \caption{A table in table* environment to span over the whole
        page.}
    \begin{tabular}{p{2cm} p{2cm} p{2cm} p{2cm}}
        \toprule
        First column & Second column & $\mathrm{3^{rd}}$ column & $\
            mathrm{4^{th}}$ column
        \tabularnewline\midrule
        1 & 2 & $\delta$   & 4
        \tabularnewline
        1 & 2 & $\epsilon$ & 4
        \tabularnewline\bottomrule
    \end{tabular}
    \label{tab:table5}
```

```
14  \end{table*}
```