# Recurring LaTeX commands

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**Abstract**

This document intends to gather common LaTeX commands or functionalities that I tend to forget too fast.

# Contents

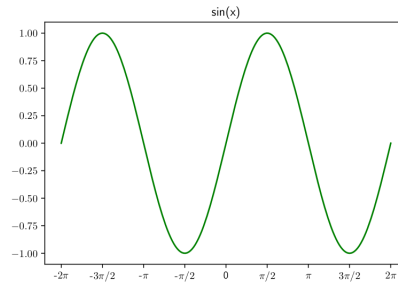# 1 Including one or more images

Simple single figure:



Figure 1: A nice figure.
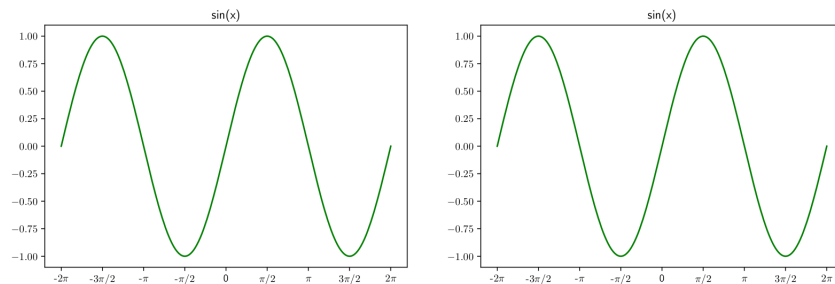
Several figures as a table with a single caption:



Figure 2: Another nice figure.

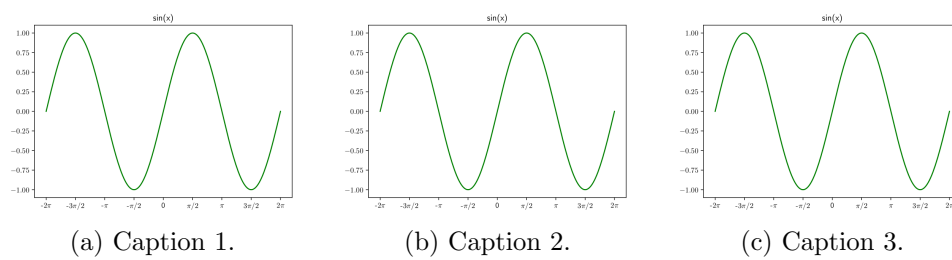To use subfigures and subcaption, need to \usepackage{subcaption}:



(a) Caption 1.  (b) Caption 2.  (c) Caption 3.

Figure 3: Three simple graphs

Same as the previous one, but moving it into the margin:
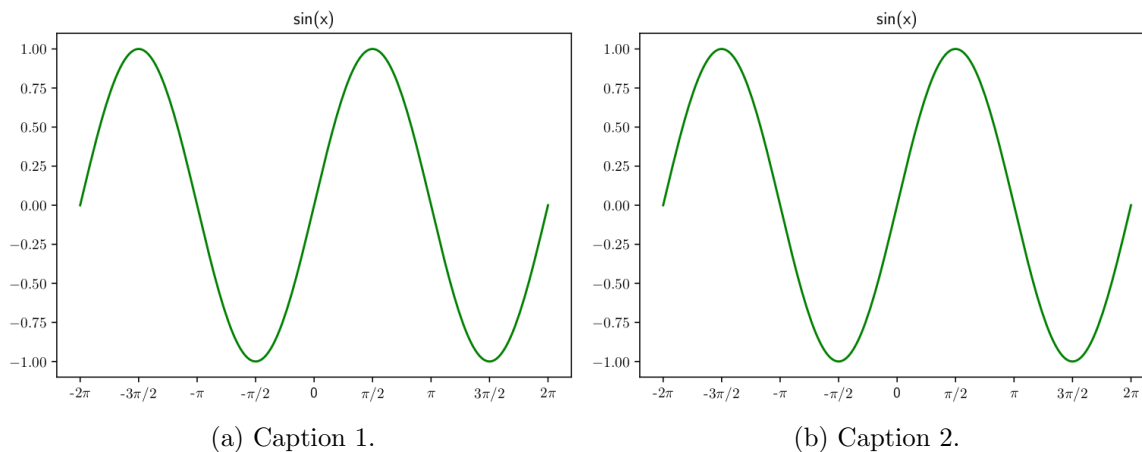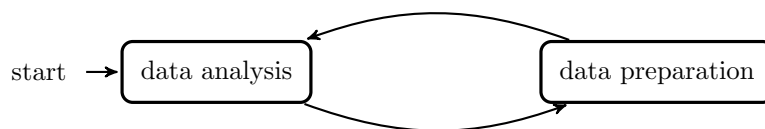


(a) Caption 1.　　　　　　　　(b) Caption 2.

Figure 4: Two simple graphs moved into the margins.

## 2　Simple TikZ diagram

```
\usepackage{pgf}
\usepackage{tikz}
\usetikzlibrary{arrows,automata,matrix,positioning,shapes,shapes.geometric}
%\usepackage{xcolor}
```



## 3　Moving a table into the margin

Table 1: Original table position.

| What? | Why? | How? | Where? |
|-------|------|------|--------|
| This. | That. | This other thing. | That other thing that is long. |
| That. | This. | That other thing that is long. | This other thing. |

Reference extent of text (`\hrule`):

## 4　Multirows and multicolumns

```
\usepackage{multirow}
\usepackage{makecell}
```

Table 2: A nicer table.

| What? | Why? | How? | Where? |
|-------|------|------|--------|
| This. | That. | This other thing. | That other thing that is long. |
| That. | This. | That other thing that is long. | This other thing. |

Table 3: A cool table.

| What? | Context | | |
|-------|------|------|--------|
| | Why? | How? | Where? |
| Common thing | That. | This other thing. | That other thing. |
| | That. | This other thing. | That other thing. |
| | This. | That other thing. | This other thing. |
| | That. | This other thing. | That other thing. |

Useful for LATEX tables: link.

# 5  Including an algorithm

```
\usepackage{algorithm}
\usepackage{algpseudocode}
```

---
**Algorithm 1** Sample algorithm.

---
 1: **for all** $x \in X$ **do**
 2:     **for all** $y \in Y$ **do**
 3:         **if** $x == 0$ **then**
 4:             $x \leftarrow y$
 5:         **else**
 6:             $y \leftarrow x$
 7:         **end if**
 8:         $\text{store}(x, y)$
 9:     **end for**
10: **end for**

---

Sample line reference in algorithm 1: see line 2.

# 6  Including an equation

```
\usepackage{amsmath}
```

$$S = \left(1 - \frac{\text{error}_{\text{proposed}}}{\text{error}_{\text{reference}}}\right) \cdot 100 \qquad (1)$$

# 7 Including the ORCID as a link

Make sure hyperref is available.

`\newcommand{\orcid}[1]{\textsuperscript{\href{https://orcid.org/#1}`
`\includegraphics[scale=0.04]{00_orcid.pdf}}}}`

See Prado-Rujas.

# 8 Rotate a page

`\usepackage{pdflscape}`

`\begin{landscape}`
`[...]`
`\end{landscape}`

# 9 latexdiff breaks with textcolor + citation

Consider this in the preamble (textcolor):

`\newcommand{\note}[1]{\textcolor{magenta}{#1}}`

When adding this to the new file:

`\note{To-do: Include} \citep{repo}.`

the latexdiff compiles. However, this does not:

`\note{To-do: Include \citep{repo}.}`

Haven't understood why yet.