

L^AT_EX

L^AT_EX codes

L^AT_EX Template

Author: Zhutao Sheng

Date: 2022

Victory won't come to us unless we go to it.

Contents

Chapter 1	Elegant\LaTeX Templates	1
1.1	title	1
1.2	references	1
1.3	Character	1
1.4	Figure	1
1.5	Table	2
1.6	url, itemize, enumerate	3
1.7	math formulas	4

Chapter 1 Elegant \LaTeX Templates

Elegant \LaTeX codes

1.1 title

The corresponding code is:

```
\title{\LaTeX{} codes}
\maketitle
```

1.2 references

The corresponding code is:

```
\addbibresource{references.bib}
\cite{bibid}
\printbibliography
```

1.3 Character

And symbol Z & S

1.4 Figure

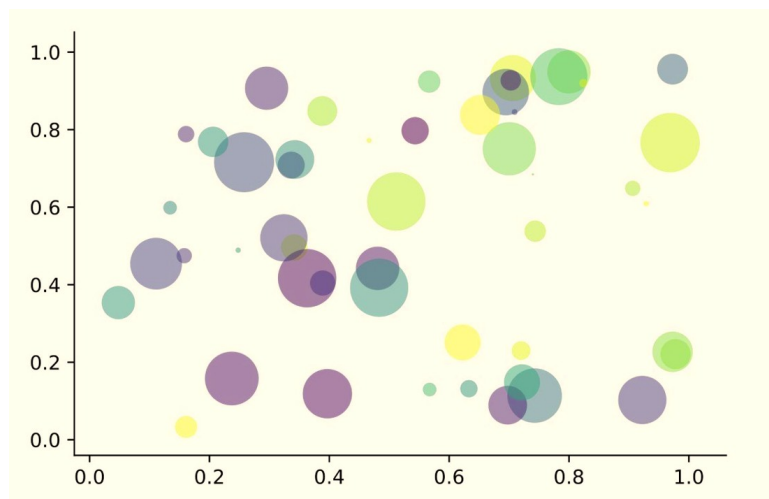


Figure 1.1: Matplotlib: Scatter Plot Example

The corresponding code is:

```
\begin{figure}[htbp]
  \centering
  \includegraphics[width=0.6\textwidth]{figure/scatter.jpg}
```

```
\caption{Matplotlib: Scatter Plot Example}\label{fig:scatter}}
\end{figure}
```

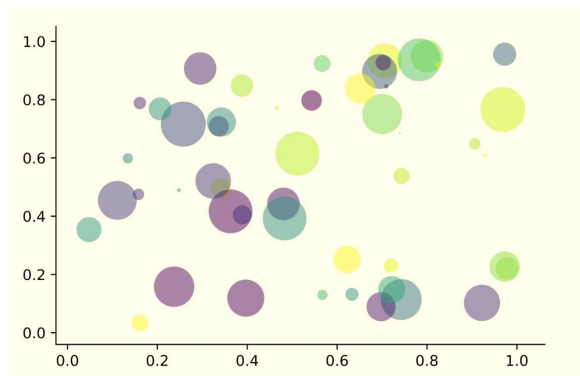


Figure 1.2: South American coati

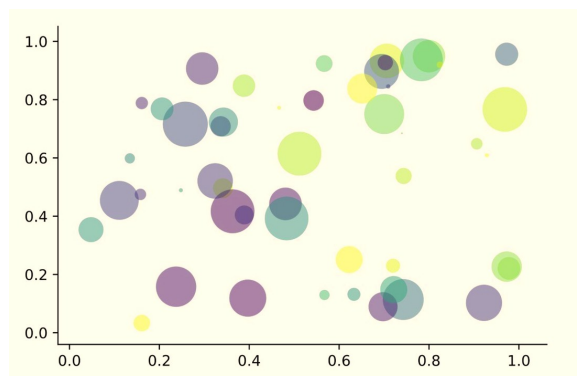


Figure 1.3: Brown bear

The double image in one row /side-by-side corresponding code is:

```
\begin{figure}[ht]
\begin{minipage}[b]{0.45\linewidth}
\centering
\includegraphics[width=\textwidth]{figure/scatter.jpg}
\caption{figure 1}
\label{fig:nasua}
\end{minipage}
\hspace{0.5cm}
\begin{minipage}[b]{0.45\linewidth}
\centering
\includegraphics[width=\textwidth]{figure/scatter.jpg}
\caption{figure 2}
\label{fig:Ursus-arctos}
\end{minipage}
\end{figure}
```

1.5 Table

Table The corresponding code is:

Table 1.1: Theorem Class Environments

Environment	Label text	Prefix	Cross-reference
definition	label	def	<code>\ref{def:label}</code>

```
\begin{table}[htbp]
\centering
\caption{Theorem Class Environments}
\begin{tabular}{llll}
\toprule
Environment & Label text & Prefix & Cross-reference \\
\end{tabular}
```

```

\midrule
definition & label & def & \lstinline|\ref{def:label}| \\\
\bottomrule
\end{tabular}%
\label{tab:theorem-class}%
\end{table}%

```

Table 1.2: Common methods for measuring respiration rate

Method	Timescale of measurement	Spatial resolution	Time series possible?	Examples
Sealed-chamber respirometry	minutes	none	yes	mouse embryos [houghton1996]; tissue culture cells [ferrick2008]; isolated mitochondria [gnaiger2000]
Open-chamber respirometry	hours	none	yes	bovine oocytes [lopez2005]
Fluorescence lifetime imaging microscopy (FLIM)	seconds	yes	yes	mouse oocytes and tissue culture cells [Yang2021elife]

The corresponding code is:

```

\begin{table}[h]
\tabcolsep7.5pt
\caption{Common methods for measuring respiration rate}
\label{tab:respiration}
\begin{center}
\begin{tabular}{|m{0.30\textwidth}|m{0.18\textwidth}|m{0.07\textwidth}|m{0.08\textwidth}|m{0.27\textwidth}|}
\hline
Method & Timescale of measurement & Spatial resolution & Time series possible? & Examples \\\hline
Sealed-chamber respirometry & minutes & none & yes & mouse embryos \cite{houghton1996}; tissue culture cells \cite{ferrick2008}; isolated mitochondria \cite{gnaiger2000} \\\hline
Open-chamber respirometry & hours & none & yes & bovine oocytes \cite{lopez2005} \\\hline
Fluorescence lifetime imaging microscopy (FLIM) & seconds & yes & yes & mouse oocytes and tissue culture cells \cite{Yang2021elife} \\\hline
\end{tabular}
\end{center}
\end{table}

```

1.6 url, itemize, enumerate

URL usage: [text](#)

You can use `lstlisting` to list the code: The corresponding code is:

```
begin{lstlisting}
end{lstlisting}
```

itemize list The corresponding code is:

```
\begin{itemize}
  \item Italian translation \href{https://github.com/VincentMVV}{VincentMVV}
\end{itemize}
```

enumerate list

1. first item of nesti;
2. second item of nesti;

The corresponding code is:

```
\begin{enumerate}
  \item first item of nesti;
  \item second item of nesti;
\end{enumerate}
```

1.7 math formulas

formulas equation $a^2 + b^2 = c^2$

```
$a^2+b^2=c^2$
```

equation:

$$\int_{R^q} f(x,y) dy. \textit{off} \quad (1.1)$$

The corresponding code is:

```
\begin{equation}
  \int_{R^q} f(x,y) dy. \textit{of} \textit{f}
\end{equation}
```

equation:

$$a^2 + b^2 = c_{2_i}(1,2)[1,23] \quad (1.2)$$

The corresponding code is:

```
\begin{equation}
  a^2+b^2=c_{2_{\{i\}}} (1,2) [1,23]
\end{equation}
```

equation **Summation Operator.** If $\{x_i : i = 1, 2, \dots, n\}$ is a sequence of n numbers, the summation of the n numbers is:

$$\sum_{i=1}^n x_i \equiv x_1 + x_2 + \dots + x_n \quad (1.3)$$

The corresponding code is:

```
\begin{equation}
\sum_{i=1}^n x_i \equiv x_1 + x_2 + \cdots + x_n
\end{equation}
```

box equation

$$m \frac{dv}{dt} = -mg + \iiint_{\text{tore-en-mouvement}} (\vec{j} \times \vec{B}) \cdot \vec{e}_z d\tau \quad (1.4)$$

The corresponding code is:

```
\begin{equation}
\boxed{
m \frac{dv}{dt} = -mg + \iiint_{
\text{tore-en-mouvement}} (\vec{j} \times \vec{B}) \cdot \vec{e}_z
}d\tau
}
\label{m}
\end{equation}
```

fraction equation $ab \cdot x^5 + x^2 + 2 \cdot x + 123 + \frac{xyz}{\cos \alpha}$ is double fraction

The corresponding code is:

```
\item $\dfrac{ab \cdot x^5 + x^2 + 2 \cdot x + 123 + \dfrac{xyz}{\cos \alpha}}{t}$ is double
fraction
```

$$\dot{Q}_{ss} = \sum_{\text{species } i} h_i J_{i,\text{import}} - \sum_{\text{species } i} h_i J_{i,\text{export}} = \sum_{\text{rxns } k} \Delta h_{\cdot,k} J_{\cdot,k} \quad (1.5)$$

The corresponding code is:

```
\begin{align}
\dot{Q}_{\text{ss}} &= \sum_{\text{species } i} h_i J_{i,\text{import}} - \sum_{\text{species } i} h_i J_{i,\text{export}} = \sum_{\text{rxns } k} \Delta h_{\cdot,k} J_{\cdot,k} \\
\label{eq:firstlaw7}
\end{align}
```