

Inclusion de figures dans un document L^AT_EX: premiers exemples et exercices

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Résumé

Quelques exemples d'inclusion de figures dans un document L^AT_EX et, ce faisant, une illustration de quelques problèmes courants et de leurs solutions.

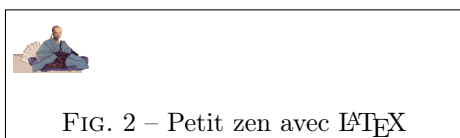
1 Inclusion d'images externes

1.1 Commandes de base

Différentes options du `includegraphics`



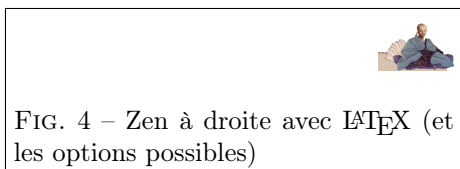
```
1 \begin{figure}
2   \includegraphics[width=5cm]{images/yvzen.png}
3   \caption{Zen avec  $\LaTeX$ {}}
4   \label{fig:yvzen1}
5 \end{figure}
```



```
1 \begin{figure}
2   \includegraphics[width=1cm]{images/yvzen.png}
3   \caption{Petit zen avec  $\LaTeX$ {}}
4   \label{fig:yvzen2}
5 \end{figure}
```



```
1 \begin{figure}
2   \begin{center}
3     \includegraphics[width=1cm]{images/yvzen.png}
4     \caption{Petit zen au milieu avec  $\LaTeX$ {}}
5     \label{fig:yvzen3}
6   \end{center}
7 \end{figure}
```



```
1 \begin{figure}[htbp] %/htbp/
2   \hfill \includegraphics[width=1cm]{images/yvzen.png}
3   \caption{Zen \ 'a droite avec  $\LaTeX$ {}} (et les options possibles)
4   \label{fig:yvzen4}
5 \end{figure}
```

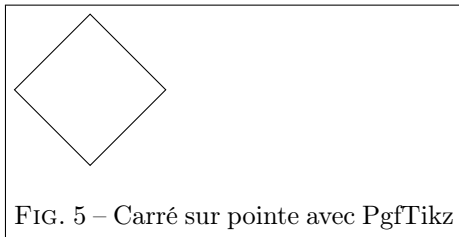
1.2 Images bitmap et images vectorielles

2 Production d'images par des commandes dans le texte

2.1 Pgf/Tikz

Malevitch revisité

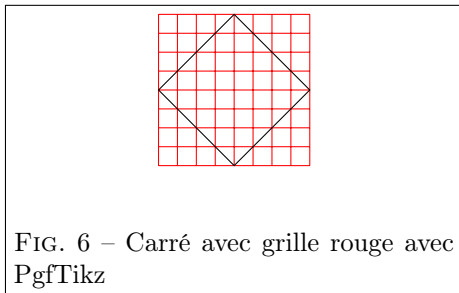
Les commandes reprises ici sont extraites du magnifique document de Andrew Mertz.



```

1 \begin{figure}
2   \begin{tikzpicture}
3     \draw (1,0) --- (0,1) --- (-1,0) --- (0,-1) --- cycle;
4   \end{tikzpicture}
5   \caption{Carr\`e sur pointe avec PgfTikz}
6   \label{fig:TikzCarre}
7 \end{figure}

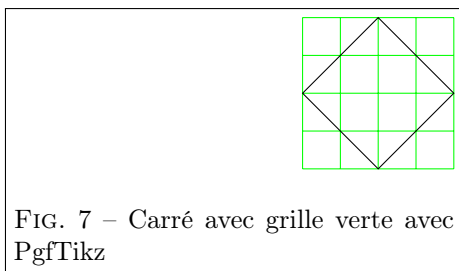
```



```

1 \begin{figure}
2   \begin{center}
3     \begin{tikzpicture}
4       \draw[step=0.25cm,color=red] (-1,-1) grid (1,1);
5       \draw (1,0) --- (0,1) --- (-1,0) --- (0,-1) --- cycle;
6     \end{tikzpicture}
7   \end{center}
8   \caption{Carr\`e avec grille rouge avec PgfTikz}
9   \label{fig:CarreGrilleTikz}
10 \end{figure}

```

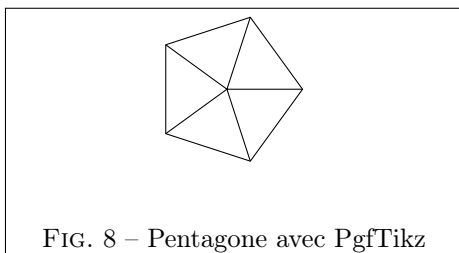


```

1 \begin{figure}
2   \hfill
3   \begin{tikzpicture}
4     \draw[step=0.5cm,color=green] (-1,-1) grid (1,1);
5     \draw (1,0) --- (0,1) --- (-1,0) --- (0,-1) --- cycle;
6   \end{tikzpicture}
7   \caption{Carr\`e avec grille verte avec PgfTikz}
8   \label{fig:CarreGrilleVerteTikz}
9 \end{figure}

```

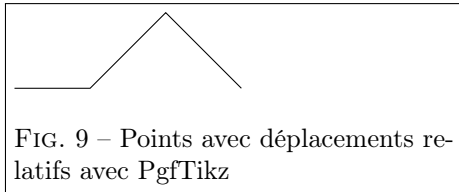
Pentagone et autres



```

1 \begin{figure}
2   \begin{center}
3     \begin{tikzpicture}
4       % Define the points of a regular pentagon
5       \path (0,0) coordinate (origin);
6       \path (0:1cm) coordinate (P0);
7       \path (1*72:1cm) coordinate (P1);
8       \path (2*72:1cm) coordinate (P2);
9       \path (3*72:1cm) coordinate (P3);
10      \path (4*72:1cm) coordinate (P4);
11      % Draw the edges of the pentagon
12      \draw (P0) --- (P1) --- (P2) --- (P3) --- (P4) --- cycle;
13      % Add "spokes"
14      \draw (origin) --- (P0) (origin) --- (P1) (origin) --- (P2)
15            (origin) --- (P3) (origin) --- (P4);
16    \end{tikzpicture}
17  \end{center}
18  \caption{Pentagone avec PgfTikz}
19  \label{fig:PentagoneTikz}
20 \end{figure}

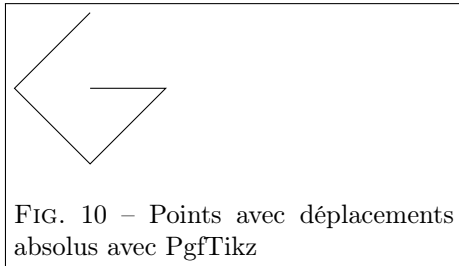
```



```

1 \begin{figure}
2 \begin{tikzpicture}
3   \draw (0,0) -- ++(1,0) -- ++(1,1) -- ++(1,-1);
4 \end{tikzpicture}
5   \caption{Points avec d'placements relatifs avec PgfTikz}
6   \label{fig:TikzPtsOffsetRel}
7 \end{figure}

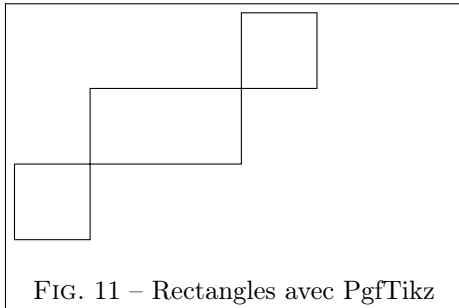
```



```

1 \begin{figure}
2 \begin{tikzpicture}
3   \draw (0,0) -- +(1,0) -- +(0,-1) -- +(-1,0) -- +(0,1);
4 \end{tikzpicture}
5   \caption{Points avec d'placements absolus avec PgfTikz}
6   \label{fig:TikzPtsOffsetabs}
7 \end{figure}

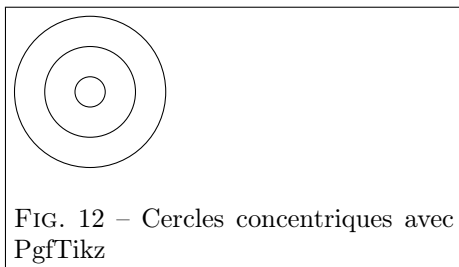
```



```

1 \begin{figure}
2 \begin{tikzpicture}
3   \draw (0,0) rectangle (1,1)
4         rectangle (3,2)
5         rectangle (4,3);
6 \end{tikzpicture}
7   \caption{Rectangles avec PgfTikz}
8   \label{fig:TikzRectangle}
9 \end{figure}

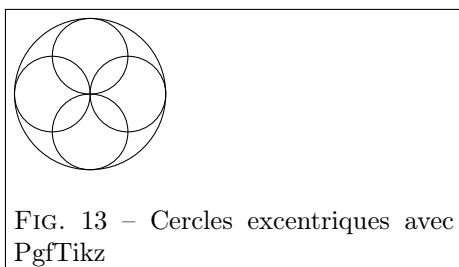
```



```

1 \begin{figure}
2 \begin{tikzpicture}
3   \draw (0,0) circle (1cm)
4         circle (0.6cm)
5         circle (0.2cm);
6 \end{tikzpicture}
7   \caption{Cercles concentriques avec PgfTikz}
8   \label{fig:TikzCerclesConc}
9 \end{figure}

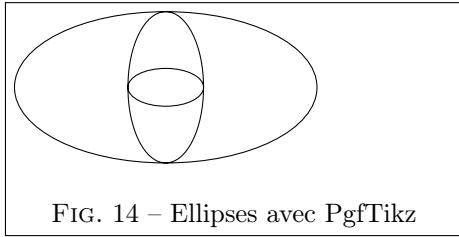
```



```

1 \begin{figure}
2 \begin{tikzpicture}
3   \draw (0,0) circle (1cm);
4   \draw (0.5,0) circle (0.5cm);
5   \draw (0,0.5) circle (0.5cm);
6   \draw (-0.5,0) circle (0.5cm);
7   \draw (0,-0.5) circle (0.5cm);
8 \end{tikzpicture}
9   \caption{Cercles excentriques avec PgfTikz}
10  \label{fig:TikzCerclesEx}
11 \end{figure}

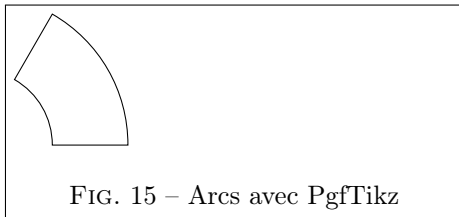
```



```

1 \begin{figure}
2 \begin{tikzpicture}
3   \draw (0,0) ellipse (2cm and 1cm)
4             ellipse (0.5cm and 1 cm)
5             ellipse (0.5cm and 0.25cm);
6 \end{tikzpicture}
7   \caption{Ellipses avec PgfTikz}
8   \label{fig:TikzEllipse}
9 \end{figure}

```



```

1 \begin{figure}
2 \begin{tikzpicture}
3   \draw (0:1cm) -- (0:2cm)
4             arc (0:60:2cm) -- (60:1cm)
5             arc (60:0:1cm) -- cycle;
6 \end{tikzpicture}
7   \caption{Arcs avec PgfTikz}
8   \label{fig:TikzArcs}
9 \end{figure}

```