How to Produce TikZ Plots for Scientific Publications?

Getting nice plots for scientific publications is not optional.

http://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1003833#pcbi.1003833-Tufte1

```
figure;
x=[1:0.01:10];
plot(x,sin(x));
xlabel('x');
ylabel('sin(x)');
```

```
matlab2tikz(sprintf('./output/gt_power_iteration.tex'),'showInfo', false,
...
        'parseStrings',false,'standalone', false, ...
        'height', '\figureheight', 'width','\figurewidth');
```

```
\tikzset{font=\footnotesize}
\begin{tikzpicture}

every x tick label/.append style={font =\footnotesize},
every y tick label/.append style={font =\footnotesize},
```

```
f=figure;
boxplot([cum_ee_power_vector_per_user cum_gt_power_vector_per_user
cum_maxlog_power_vector_per_user ...
    cum_pmax_power_vector_per_user cum_ee_nointerf_power_vector_per_user],
'notch', 'off');
set(gca,'xtick',1:5, 'xticklabel',{'Central-EE', 'Distributed-EE', 'Central-
SE', 'Max-Power',  'EE-NoInterference'})
ylabel('Power (W)');
cleanfigure;
print(f,'-depsc', sprintf('./output/heur-boxplot-power%s.eps',
figure_file_name));
savefig(sprintf('./output/heur-boxplot-power%s.fig', figure_file_name));
matlab2tikz(sprintf('./output/heur-boxplot-power%s.tex',
figure_file_name),'showInfo', false, ...
        'parseStrings',false,'standalone', false, ...
        'height', '\figureheight', 'width','\figurewidth');
```

```
\usepackage{tikz}
\usepackage{pgfplots}
\pgfplotsset{compat=newest}
\usetikzlibrary{plotmarks}
\usepackage{grffile}

\newlength\figureheight
```

```
\newlength\figurewidth

\begin{figure}[!h]
    \centering
    \setlength\figureheight{0.3\textwidth}
    \setlength\figurewidth{0.35\textwidth}
    \input{figures/matlab-fig-tikz/central-dist-boxplot-
objective-10users-7sectors-15RBs-20W.tex}
    \caption{Energy efficiency of the centralized and distributed
approaches}
    \label{fig:central-dist-boxplot-objective-10users-7sectors-15RBs-20W}
\end{figure}
```

From:
http://wiki.lahoud.fr/ - **wikiroute**

Permanent link:
http://wiki.lahoud.fr/doku.php?id=how_to_produce_tikz_plots_for_scientific_publications

Last update: **2016/01/24 00:17**