

# xfakebold, v. 0.05

## using bold characters with pdf<sub>l</sub>atex or lua<sub>l</sub>atex

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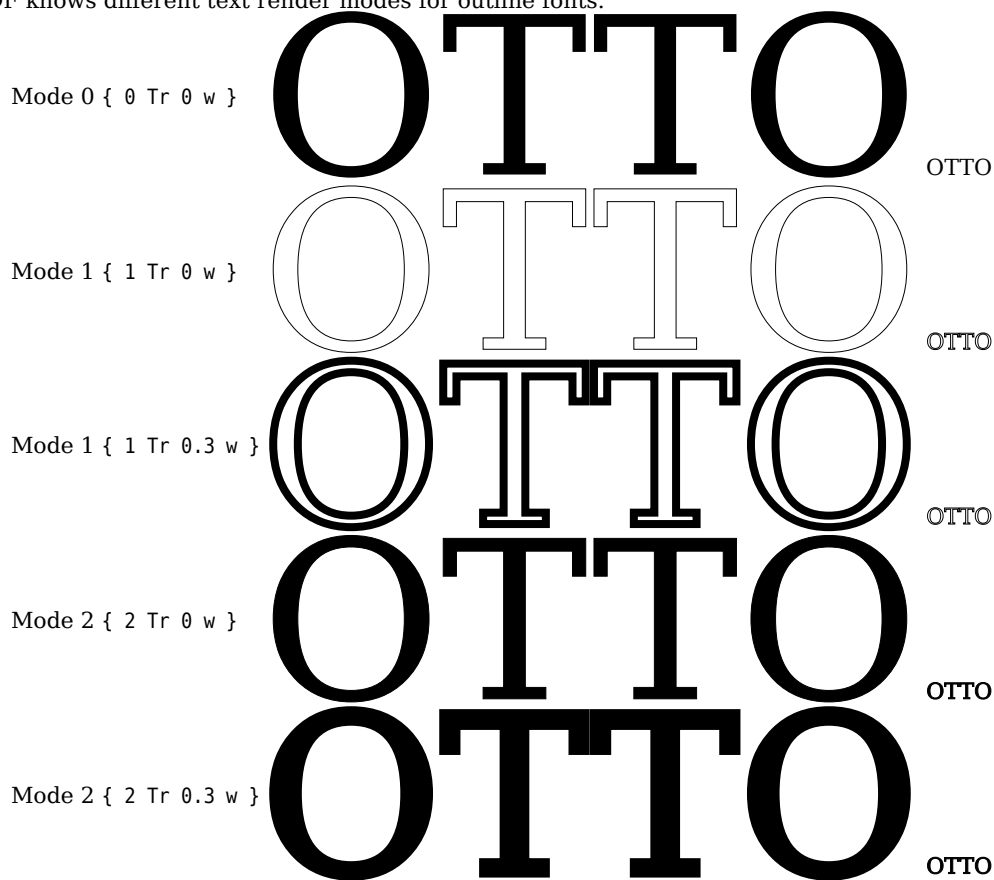
### Abstract

The package fakes a vector font with outline characters by the text render of PDF. It writes directly into the pdf output with `\pdfliteral` (pdf<sub>l</sub>atex ) or `\pdfextension literal` (lua<sub>l</sub>atex). The package defines two macros which can be used in text and in math mode. However, for the text mode one should use the bold version of the text font which should be available in most cases. This is different to the math mode where only some free math fonts provide a bold version.

Thanks to: Will Robertson;

# 1 How does it work?

PDF knows different text render modes for outline fonts.



In mode 0 the character is filled but without drawing its outline which can be seen when printing in mode 1, where the linewidth of the outline is the smallest one which the system allows. Setting the linewidth to 0.3 bp, which is nearly the same as 0.3 pt, the linewidth of the outline increases. In mode 2 the character is printed with filling *and* drawing the outline, which is mode 0 and 1 together. The reason why the character is bold by default. Increasing the linewidth makes it more bold.

## 2 Optional argument

The only package option is `bold` which is preset by 0.3, which is the linewidth of the outlines of the characters.

```
\usepackage[bold=0.6]{xfakebold}
```

makes the characters more bold.

## 3 The example code

```
\documentclass{article}
\usepackage{xfakebold}
\begin{document}
An example:

$$\pi^{\pi} = \lim_{n \rightarrow \infty} \frac{1}{n^2} \sum_{k=1}^n dx = 1$$


\setBold\noindent
An example:

$$\pi^{\pi} = \lim_{n \rightarrow \infty} \frac{1}{n^2} \sum_{k=1}^n dx = 1$$


\unsetBold\noindent
```

```
An example:
 $\pi^\pi = 36.462159607208$  and  $\int_1^\infty \frac{1}{x^2} dx = 1$ 
 $\pi^\pi = 36.462159607208$  and  $\int_1^\infty \frac{1}{x^2} dx = 1$ 
```

## 4 The output

An example:  $\pi^\pi = 36.462159607208$  and  $\int_1^\infty \frac{1}{x^2} dx = 1$

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The same for `\usepackage[bold=1]{xfakebold}`:

An example:  $\pi^\pi = 36.462159607208$  and  $\int_1^\infty \frac{1}{x^2} dx = 1$

**An example:  $\pi^\pi = 36.462159607208$  and  $\int_1^\infty \frac{1}{x^2} dx = 1$**

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