

# magicwatermark 宏包<sup>1</sup>

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V1.2A

```
\MagicWatermark{
  setup = {
    pages = {*},
    content = {P-\thepage},
    style = {shift = {(0.5\textwidth, 0.5\textheight + \headheight +
\headsep)}, scale = 3, text = cyan, font = \ttfamily}
  },
  setup = {
    pages = {even},
    style = {scale = 5, text = pink},
    content = {Watermark},
    is append
  },
  setup = {
    pages = {1},
    style = {text width = 1.7\paperwidth, rotate = 45, align = left, font =
\Large, opacity = .1},
    content = {
      \foreach \x in {0, ..., 500} {Magic Watermark }
    },
    is append
  }
}
```

<sup>1</sup><https://github.com/ljguo1020/magicwatermark>

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## 1 介绍

`magicwatermark` 是一个全新的水印宏包, 在 2022 年 6 月 17 日发布了第一版, 本次更新并不是基于第一版, 而是进行了重构.

`magicwatermark` 基于 `tikz` 和 `expl3`, 可以灵活的设置背景或水印.

## 2 使用

`magicwatermark` 的使用, 相比于其它同类功能的包来说, 可以说是易用性最高的, 它只提供了一个命令 `\MagicWatermark`, 命令参数由多个 `setup` 规则组成.

```
\MagicWatermark{
  setup = {},
  setup = {},
  ...
}
```

`setup` 内部接受四个键值选项, 用于配置水印的表现形式.

### 2.1 pages

`pages` 接受一个逗号分割列表, 用于配置水印作用范围, 例如 `pages = {2, 4, 5, 8-10}`, 表示选中页码为第 2, 4, 5, 8, 9, 10 这些页面.

`pages` 共接受 4 种配置规则,

- `*`, 表示所有页面;
- `odd` 和 `even`, 表示奇偶页;
- 范围, 形如 `3-5`, `12-ii`;
- 表达式, 形如 `2X+1`, `2X^2+X+1`, 但是变量必须为 `X`.

这里假定页面总页数为 24 页,

| pages 配置规则                           |    |                                  |
|--------------------------------------|----|----------------------------------|
| <code>pages = {*}</code>             | => | 1, 2, 3, ..., 24                 |
| <code>pages = {odd}</code>           | => | 1, 3, 5, ..., 23                 |
| <code>pages = {1, 3, 5-10}</code>    | => | 1, 3, 5, 6, 7, ..., 10           |
| <code>pages = {1-5, 8, 20-ii}</code> | => | 1, 2, ..., 5, 8, 20, 21, ..., 23 |
| <code>pages = {3X + 1}</code>        | => | 1, 4, 7, 10, ..., 22             |

## 2.2 tikz

`tikz` 用于设置是否将水印内容放置在 `tikz` 的 `node` 中, 见下文, 可选值为 `true` 和 `false`, 默认为 `true`. 当你需要使用 `tikz` 时, 需要手动加载 `tikz` 宏包.

## 2.3 content

`content` 用来设置水印的内容, 当 `tikz` 被启用时, 它被放在了 `tikz` 的 `node` 中, 为此, 想要灵活的设置它, 您需要对 `node` 有一些了解.

## 2.4 style

`style` 用于设置容纳水印内容的 `node` 的样式, 默认为 `inner sep = 0pt`, `outer sep = 0pt`, `opacity = .5`, `align = left`, 当 `tikz` 被禁用时, 它会被忽略.

## 2.5 is append

`is append` 用于设置是否覆盖当前页已有的水印, 可选值为 `true` 和 `false`, 默认为 `false`.

### 3 使用案例

#### 为所有页面右上角添加页码

```
% \usepackage{tikz}
\MagicWatermark{
  setup = {
    pages = {*},
    content = {P-\thepage},
    style = {shift = {(0.5\textwidth, 0.5\textheight + \headheight + \headsep)}},
    scale = 3, text = cyan, font = \ttfamily}
  }
}
```

#### 为偶数页页面中心添加文字 Watermark

```
% \usepackage{tikz}
\MagicWatermark{
  setup = {
    pages = {even},
    style = {scale = 5, text = pink},
    content = {Watermark},
    is append
  }
}
```

#### 为第二页到最后一页设置铺满整个页面的文字

```
% \usepackage{tikz}
\MagicWatermark{
  setup = {
    pages = {2-i},
    style = {text width = 1.7\paperwidth, rotate = 45, align = left, font =
    \Large, opacity = .1},
    content = {
      \foreach \x in {0, ..., 500} {Magic Watermark }
    },
    is append
  }
}
```

## 为奇偶页设置不同水印

```

% \usepackage{tikz}
\MagicWatermark{
  setup = {
    pages = {even},
    style = {scale = 8, rotate = 45, text=red, align = center,font =
\linespread{2}\selectfont},
    content = {
      Even MagicWatermark\\
      Even MagicWatermark\\
      Even MagicWatermark\\
      Even MagicWatermark
    }
  },
  setup = {
    pages = {odd},
    style = {scale = 6, rotate = -45, text = cyan, text width = 1.7\paperwidth,
font = \linespread{1.5}\selectfont, align = center},
    content = {
      \foreach \x in {0,...,5}{
        Odd MagicWatermark
      }
    }
  }
}

```

## 设置图片为水印

```

% \usepackage{tikz}
\MagicWatermark{
  setup = {
    pages = {even},
    style = {opacity = 0.3},
    content = {
      \includegraphics{example-image-a}
    }
  },
  setup = {
    pages = {odd},

```

```

style = {opacity = .3, rotate=45, text width = 3\paperwidth},
content = {
  \foreach \x in {0, ..., 20}{
    \foreach \y in {1, 2, 3} {
      \includegraphics{example-image-b}
    } \\\
  }
}
}
}
}

```

### 禁用 tikz

```

\def\addhead#1#2{%
  \expandafter\gdef\csname head@content@#1\endcsname{#2}%
}

\def\printhead#1{%
  \csname head@content@#1\endcsname%
}

\addhead{2}{The only way to do great work is to love what you do.}
\addhead{3}{Success is not final, failure is not fatal: It is the courage to
  continue that counts.}
\addhead{4}{In the end, we will remember not the words of our enemies, but the
  silence of our friends.}
\addhead{5}{It does not matter how slowly you go as long as you do not stop.}

\NewDocumentCommand{\mywatermark}{}{%
  \begin{tikzpicture}[remember picture, overlay]
    \node[yshift = -\headheight - \headsep, text = teal, font = \large] at
      (current page.north) {\printhead{\thepage}};
  \end{tikzpicture}
}

\MagicWatermark{
  setup = {
    pages = {2-5},
    tikz = false,

```

```
    content = \mywatermark  
  }  
}
```