

Manual for Preparation of Posters of any size using `sciposter.cls` V. 1.17

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1 Introduction

The \LaTeX class file `sciposter.cls` has been developed to make life easier for those developing posters for conferences. It defines paper sizes, appropriate font size, title styles, logos etc., to enable the author of an article (in \LaTeX) to cut and paste content from the article into a poster. It also redefines certain environments in a way compatible with the `sciposter` class. These environments are `figure`, `subfigure`, `table`, and `algorithm`. In the current version `sciposter.cls` is intended for use with both standard \LaTeX and `pdf\text{\LaTeX}`. It has been derived from `IWIposter.cls` version 1.16, and has all its functionality except for the predefined logos and institute name, which are specific to the IWI (Institute for Mathematics and Computing Science, University of Groningen). Because all `sciposter.cls` commands are valid in `IWIposter.cls`, this manual also applies to that class file. Anyone using the new `IWIposter.cls` version 2.0 and upwards should also have `sciposter.cls` in their \TeX directory. Anyone making posters within the University of Groningen can best use the `IWIposter.cls`, and change the institute name.

The file `sciposter.cls` comes in an archive `sciposter.tgz` which also contains a number of supporting files (`README`, style files, etc.), an example in directory `sciposterexample`, and this manual. To learn more about the use of this class file, please refer to `sciposter-example.tex`, which demonstrates a number of features of the package.

2 Installation

Installation of the package only concerns unpacking the archive in a directory of your choice. It is most convenient to unpack the archive in a directory included in the `TEXINPUTS` environment variable (at our institute, in your `.TeX` directory in your home directory). Unpacking is done using the command:

```
tar -xzf sciposter.tgz
```

3 Titles and page layout

As any \LaTeX class file, simply type:

```
\documentclass{sciposter}
```

at the start of your manuscript, and use commands such as `\title`, and `\maketitle` as usual. The `\author` can be used as ever, though it is better to enter only the author names, and specify the authors institute using a separate command `\institute`. A further command `email` is available to specify email addresses (or URLs). By default there is space to the left and right of the title for a logo. Default settings are no logos, but space reserved. These settings can be changed using the commands:

<code>\institute</code>	has single parameter to set institute address.
<code>\leftlogo</code>	has one optional parameter for the width of the logo, and one mandatory parameter for left logo file (with or without extension).
<code>\rightlogo</code>	has one optional parameter for the width of the logo, and one mandatory parameter for right logo file (with or without extension).
<code>\noleftlogo</code>	same as <code>\leftlogo{}</code> , but also widens space available for title.
<code>\norightlogo</code>	same as <code>\rightlogo{}</code> , but also widens space available for title.
<code>\nologos</code>	same as <code>\noleftlogo \norightlogo</code>

The width of the logos is set relative to the space reserved, i.e., values between 0 and 1 are expected (default 1). Thus, if we have put

```
\leftlogo[0.52]{RuGlogo}
\title{Generalized Pattern Spectra Sensitive to Spatial Information}
\author{Michael H.F. Wilkinson}
\institute{Institute for Mathematics and Computing Science\\
           University of Groningen, P.O. Box 800, 9700 AV Groningen,
           The Netherlands}
\email{michael@cs.rug.nl}
```

in the preamble, we obtain:



Generalized Pattern Spectra Sensitive to Spatial Information

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The text font size of the title, author, and institute address can be controlled by redefining the commands `\titlesize`, `\authorsize`, and `\instsize`, respectively, e.g:

```
\renewcommand{\titlesize}{\huge}
\renewcommand{\authorsize}{\Large}
\renewcommand{\instsize}{\large}
```

Sets up a title with size `\huge`, author in size `\Large`, and institute address in size `\Large`. Other effects such as italics can be added as well.

All the above commands should be given before `\maketitle`. A further logo can be put in the lower right corner of the poster, as part of the footer. At this point in time, it can only be changed

by redefining the `\footlogo` command. As an example, the `\footlogo` used at our institute is inserted using the command:

```
\renewcommand{\footlogo}{%
  \resizebox{\logowidth}{!}{%\includegraphics{RuGbalkBl.png}}%
}
```

This is feasible because it is an oblong of height:width ratio of about 1:4.75. To create a narrower logo use a fraction of the `\logowidth` instead, e.g. `0.5\logowidth`. This automatically rescales with the paper size and the sizes of the top logos.

Footer. By default, the `sciposter` class uses an empty page layout (no header or footer). However, the following command allows you to enter a footer line indicating the conference where the poster will be presented:

`\conference` has single parameter to specify conference

In the file `sciposter-example.tex` we have:

```
\conference{\bf ICPR 2002}, 16th International Conference on
Pattern Recognition, 11-15 August 2002, Qu'ebec City, Canada}
```

After the title has been set up, it is common practice to use the `multicols` environment to fill the rest of the page. For portrait posters at A0 paper size, 3 columns is preferred, for landscape at the same size, 5 is most appropriate. Note however that the user may use the space between title and footer in any other way.

Page margins. By default, the page margin is 6% of the smallest dimension of the paper all round. To facilitate easy alteration of the page margins, an extra command `\setmargins`, which has one optional parameter, has been introduced in version 1.17. By default this sets the page margin to the default value. To set all the page margins to e.g. 2 cm just specify

```
\setmargins[2cm]
```

before `\begin{document}`.

Paragraph indents The indent of the first line of a paragraph is set to 0 pt by default in `sciposter.cls`. Before version 1.17, choosing other values using, e.g.

```
\setlength{\parindent}{2em}
```

resulted in undesirable shifts in the “floating” environments `figure`, `table`, and `algorithm` (see next section). As of version 1.17, this has been corrected.

4 Environments defined by the class

The following environments have been (re)defined in the class file:

for ***bold italics*** for all caption starts, followed by a redefinition of the algorithm caption start style to **BOLD SMALL CAPS**.

The style of the body text of a caption is controlled by the following commands:

<code>\mastercapbodystyle</code>	Controls appearance of all caption bodies by default. Default defined as <code>\itshape</code>
<code>\figcapbodystyle</code>	Style of caption body for figure.
<code>\tablecapbodystyle</code>	Style of caption body for table.
<code>\algcapbodystyle</code>	Style of caption body for algorithm.

Note that these commands do not have any parameters. The different definition from the caption start commands ensures that caption bodies containing paragraph breaks are allowed. The defaults can be changed in the usual way, e.g.,

```
\renewcommand{\algcapbodystyle}{\bfseries}
```

changes the algorithm caption bodies to boldface.

Again, as of version 1.17, the appearance of the figure, table and algorithm counters can be modified in a more natural L^AT_EX way. Rather than using hard-coded Arabic numerals, the appearance of the figure, table, and algorithm counters are controlled by the corresponding `\thefigure`, `\thetable`, and `\thealgorithm`. For example

```
\renewcommand{\thealgorithm}{\Roman{algorithm}}
```

changes the algorithm counter to uppercase Roman numerals. All these examples are available in the `sciposter-example.tex` file (commented out).

5 Controlling print colours

The class file includes package `color` to allow control over print colours. The following colours have been defined:

<code>mainCol</code>	background colour (default white)
<code>TextCol</code>	normal text colour (default black)
<code>SectionCol</code>	section header colour (default black)
<code>BoxCol</code>	section box colour (default light grey)

They can be defined by commands such as:

```
\definecolor{mainCol}{rgb}{1,1,1}
\definecolor{BoxCol}{rgb}{0.9,0.9,1}
\definecolor{TextCol}{rgb}{0,0,0}
\definecolor{SectionCol}{rgb}{0,0,0}
```

These commands set up the defaults for `IWIposter.cls`. Note that these definitions must be made *before* `\begin{document}`.

6 Class Options

6.1 Paper-size options

In this class, paper sizes also change the default font size. The class options controlling paper size implemented within `sciposter.cls` are:

ISO A series:

<code>a0</code>	ISO A0 paper size (83.96cm × 118.82cm); normal font size 25pt.
<code>a1</code>	ISO A1 paper size (59.4cm × 83.96cm); normal font size 20pt.
<code>a2</code>	ISO A2 paper size (41.98cm × 59.4cm); normal font size 17pt.
<code>a3</code>	ISO A3 paper size (29.7cm × 41.98cm); normal font size 14pt.

ANSI Sizes:

<code>ansiE</code>	ANSI E paper size (86.36cm × 111.76cm); normal font size 25pt.
<code>ansiD</code>	ANSI D paper size (55.88cm × 86.36cm); normal font size 20pt.
<code>ansiC</code>	ANSI C paper size (43.18cm × 55.88cm); normal font size 17pt.
<code>tabloid</code>	Tabloid, a.k.a. ledger, a.k.a. ANSI B paper size (27.9cm × 43.18cm); normal font size 14pt.

This version also supports “external” paper-size specification, through files which have names of the form `paper<type>.cfg`, e.g. `paperb0.cfg` for ISO B0.

ISO RA series:

<code>ra0</code>	ISO RA0 paper size (untrimmed A0: 86cm × 122cm); normal font size 25pt.
<code>ra1</code>	ISO RA1 paper size (untrimmed A1: 61cm × 86cm); normal font size 20pt.
<code>ra2</code>	ISO RA2 paper size (untrimmed A2: 43cm × 61cm); normal font size 17pt.

ISO B series:

<code>b0</code>	ISO B0 paper size (100.0cm × 141.4cm); normal font size 30pt.
<code>b1</code>	ISO B1 paper size (70.7cm × 100.0cm); normal font size 25pt.
<code>b2</code>	ISO B2 paper size (50.0cm × 70.7cm); normal font size 20pt.
<code>b3</code>	ISO B3 paper size (35.4cm × 50.0cm); normal font size 17pt.

Custom Sizes:

<code>custom</code>	Edit file <code>papercustom.cfg</code> to specify any type of paper (see below).
---------------------	--

All font sizes are approximate (see section 6.2 for exact sizes). All title, author, institute, section and subsection header sizes are set accordingly. Defaults are `a0` and `portrait`. ISO RA0–RA2 have been included because several printers have rolls of 86 cm or 61 cm wide. The `a0b` options inherited from `a0poster.cls` in the distant past has been removed. An important new feature is the possibility to add new paper sizes by creating new `paper<type>.cfg` files (e.g. for ISO C-series paper). A special file `papercustom.cfg` (see Figure 1) is provided for one-off runs on special sizes. Simply change the `\paperheight`, `\paperwidth`, and `\fontpointsize` according to your preferences, and set the correct values for height and width in the `\special` commands accordingly. File `papercustom.cfg` can also be copied to create some new `paper<type>.cfg`. In this case it is best to change

```
\renewcommand{\papertype}{custom}
```

to

```
\renewcommand{\papertype}{<type>}
```

```

% file papercustom.cfg, M.H.F. Wilkinson
% custom paper support
% for sciposter.cls v1.10 and higher
% edit pointsize, width, height, and fontsize parameters as needed
% DO ensure that values in the \special commands match!
\renewcommand{\papertype}{custom}
\renewcommand{\fontpointsize}{25pt}
\setlength{\paperwidth}{86cm}
\setlength{\paperheight}{180cm}
\renewcommand{\setpspagesize}{
  \ifthenelse{\equal{\orientation}{portrait}}{
    \special{papersize=86cm,180cm}
  }{\special{papersize=180cm,86cm}}
}

```

Figure 1: Custom paper specification file as provided in the package.

Finally, orientation specification is through the following options:

Orientation:

landscape	sets paper orientation to landscape.
portrait	sets paper orientation to portrait.

6.2 Font options

Font sizes can be controlled through the following options:

14pt	normal font size 14.4pt.
17pt	normal font size 17.28pt.
20pt	normal font size 20.74pt.
25pt	normal font size 24.88pt.
30pt	normal font size 29.86pt.
36pt	normal font size 35.83pt.
largefonts	select normal font size of paper size one step above current paper size (for a0 it becomes 30pt).

Note that the explicit point settings overrule the `largefonts` option.

6.3 Section header format

Three section heading options exist in the class file:

<code>boxedsections</code>	Section headers within shadow boxes of colour <code>BoxCol</code>
<code>plainboxedsections</code>	Section headers within plain boxes of colour <code>BoxCol</code>
<code>ruledsections</code>	Underlined section headers
<code>plainsections</code>	Plain (left-aligned) section headers

The default is `boxedsections`. Further control over the section headers can be exerted by redefining the `\sectionsize` and `\subsectionsize` commands. For example, the commands

```
\renewcommand{\sectionsize}{\Large}
\renewcommand{\subsectionsize}{\large \textcolor{\SectionCol}}
```

create `\Large` section headers and `\large` subsection headers with the same colour as section headers.

6.4 Print style options

Finally, there are options regarding print style:

<code>draft</code>	causes draft version to be generated (affects only graphics).
<code>final</code>	causes final version to be made.

Default is `final`.

7 Dependencies and Conflicts

Class `sciposter` requires the following packages:

- `a0size`
- `boxedminipage`
- `color`
- `graphics`
- `ifthen`
- `shadow`
- `times`

Most of these packages are either part of the standard \LaTeX distribution or can be obtained from www.ctan.org. Not required, but designed for use with this class is `sectionbox.sty` which allows placement of ((sub)sub)sections in fancy boxes with different colours. Package `sectionbox.sty` is also available from www.ctan.org.

Known conflicts exist with the following packages:

a4 Defines A4 paper size: obviously not compatible with A0 posters.

a4wide Similar to above, sets A4 paper size (using `a4.sty`).

algorithm The `algorithm` environment is a floating environment, not compatible with the `sciposter` class. However, it is defined in the class itself.

subfigure Subfigures are redefined in the class, to be compatible with the internal (non-floating) figure environment.

Any other class redefining paper size may come into conflict with the `sciposter` class. Similarly, any other class using the float environments may come into conflict with this class.