The Prosper package for \LaTeX

(Presentations without PowerPoint)

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Of course, ...
Of course, this presentation was prepared using Prosper.
Overview

- The *Prosper* class
- Why use *Prosper*?
- Basic Structure
- Compilation process
- Miscellaneous features
- *Prosper* at the IAC
- Useful links
- Examples
Prosper is a \LaTeX\ class for writing transparencies. All common \LaTeX\ macros are available.
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  - Adobe\textregistered Portable Document Format \textsuperscript{TM} (PDF)
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Presentations are viewed with the Acrobat Reader.
Required packages and programs

- `graphicx.sty`, `seminar.sty` (teTeX 0.9 and above)
- Slide styles need PSTricks and AMSLaTeX (amssymb)
- recent version of hyperref (≥6.69)
- Recent version of dvips (v. 5.85 and above)
- Recent version of Ghostscript (version ≥ 6.0) to produce PDF
\LaTeX{} packages for presentations

- PDFLaTeX
- slides class
- Seminar package
- Prosper class
- Beamer class
- TexPower
- ...

The \textit{Prosper} package for \LaTeX{} – p.6/22
Main features

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The following formula computes 8 correct digits per iteration (Ramanujan):

\[ \frac{1}{\pi} = \sum_{n=0}^{\infty} \frac{(\frac{1}{2})_n(\frac{1}{2})_n\frac{3}{4}^n}{n!} (2^{1/2}(1103 + 26390n))^{1/(992)^{1/2}} \]
The quest for $\pi$

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$$\frac{1}{\pi} = \sum_{n=0}^{\infty} \frac{(\frac{1}{2})_n (\frac{1}{3})_n (\frac{1}{4})_n}{n!^3} \frac{1}{(99^2)^{2n+1}}$$
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Why use Prosper?

😊 if you don’t like PowerPoint
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For example,

\begin{align*}
\nabla \cdot \vec{E} &= \rho \\
\nabla \times \vec{E} &= -\frac{\partial \vec{B}}{\partial t} \\
\nabla \cdot \vec{B} &= 0 \\
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\]
Basic Structure

\documentclass[pdf, ...]{prosper}
\title{Some presentation}
...
\begin{document}
\maketitle
...
\begin{slide}[transition]{Title}
  normal text/graphics on slide
\end{slide}
Options of the class

\documentclass[options]{prosper}

- pdf or ps; slideBW or slideColor; colorBG or nocolorBG; final or draft
- Style: frames, azure, autumn, contemporain, darkblue, troispoints, ...

Example:

\documentclass[pdf,contemporain,slideColor,colorBG]{prosper}
Macros in the preamble

\title{}
\subtitle{}
\author{}
\email{}
\institution{}
\slideCaption{}
\Logo(x,y)\{\includegraphics[width=1cm]{logo.eps} \}
\DefaultTransition{}}
The slide environment

\begin{slide}[transition]\{Slide title\}

- **Transitions:** Split, Blinds, Box, Wipe, Dissolve, Glitter, Replace
- **Placing text and figures:**

\begin{minipage}{4cm}
\includegraphics[]
\end{minipage}
\begin{minipage}{5cm}
material for slide
\end{minipage}

\begin{minipage}{5cm}
\begin{itemize}
  \item APEX (MPFR, JC Berkeley)
  \item AMI (Cambridge)
  \item SPT (U. Chicago)
  \item ACT (Princeton, Penn)
  \item PLANCK
\end{itemize}

- SPT: 4000 sq. deg (1.3').
  \(M_{\text{cluster}} > 4 \times 10^{14} M_{\odot}\).
  Expect 20,000 clusters.
- APEX: 250 sq. deg (0.8')
- ACT: 100 sq. deg (1.1')
- PLANCK \(\sim 10,000\) cl. in all sky (5')
\end{minipage}
Step-by-step

\overlays{n}\
{\begin{slide}{...}...\end{slide}}
...
{\end{slide}}

- Macros:

{\begin{itemstep}
{item}...
{\end{itemstep}}

(no replacement)

{\fromSlide{m}{}{}}
{\onlySlide{m}{}{}}
{\untilSlide{m}{}{}}
{\FromSlide{m}}

(replacement)

{\fromSlide*{m}{}{}}
{\onlySlide*{m}{}{}}
{\untilSlide*{m}{}{}}
The compilation process:
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\LaTeX \rightarrow \text{DVI}
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\textsc{LaTeX} $\rightarrow$ \textsc{DVI} $\rightarrow$ \textsc{PostScript} or \textsc{PDF}
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  \item \LaTeX \rightarrow \text{DVI} \rightarrow \text{PostScript or PDF}
  \item \texttt{dvips}
\end{itemize}

Printing slides
The compilation process:

\[ \text{\LaTeX} \rightarrow \text{DVI} \rightarrow \text{PostScript or PDF} \]

- dvips
- ps2pdf
- dvi2pdf (Perl script)

Printing slides

On-screen display
Prosper allows to set links and targets within the presentation with the \hyperlink and \hypertarget commands. (E.g. this is a link to the last page).

Embed animations within a presentation. E.g. to embed an MPEG movie, you can include the following code:
\href{run:movie.mpg}{Click here to view the movie}

Easy to convert the PDF presentation to an HTML slideshow (e.g. using the Python script pdf2htmlpres.py).
Prosper at the IAC

- **Prosper:** [http://goya/inves/SINFIN/sie_courses.html](http://goya/inves/SINFIN/sie_courses.html)
- **Local directory:**
  
  `/usr/pkg/teTeX/teTeX-2.0.2/share/texmf-local/tex/latex/prosper/

- **IAC logos:**

  `logoiac_blue_bg.ps`  `logoiac_white_bg.ps`
Useful links

- **Prosper Home Page**
  http://prosper.sourceforge.net/

- **PStricks**
  http://www.pstricks.de/index.phtml

- **Others:**
  - http://wikiproser.bbclone.de/
  - http://amath.colorado.edu/documentation/LaTeX/prosper/

(link to page “Miscellaneous features”)