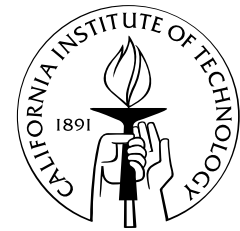


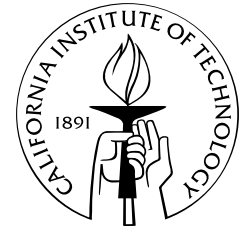
L^AT_EX for “Powerpoint” Presentations

Rick Muller
MSC Group Meeting
March X, 2002



Overview

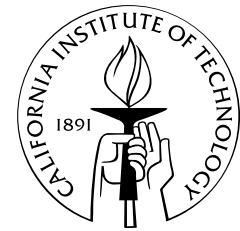
- PDF files have many of the same characteristics as PPT presentations.
 - Can display full-screen
 - Most people have Acrobat Reader on their computers
- \LaTeX can produce very nice PDF files
- The Seminar package in \LaTeX has tools to define frame styles, background colors, and other useful tricks.



Why not just use Powerpoint?

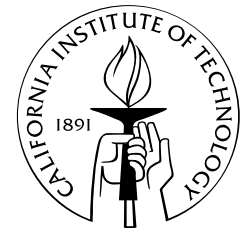
I'm not trying to bash Microsoft here. They're a company that makes lots of good software. However, I sometimes prefer an alternative, because Powerpoint:

- is a proprietary program, only runs on Windows, and I can't run it on Linux
- uses a binary file format, which I can't read from all computers I use
- is often prone to crashing



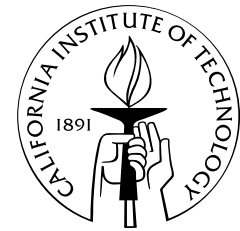
Advantages to L^AT_EX

- Free (speech, beer)
- Text file format
 - Can write using a vast variety of programs
 - Can read on any computer
 - I've written L^AT_EX on my Palm Pilot
- Much faster to write
- Much smaller files
- L^AT_EX equations!



Disadvantages to \LaTeX slides

- Slide sorter mode in Powerpoint is brilliant
- Ability to make a poster by pasting/resizing powerpoint slides is similarly brilliant
- WAG doesn't speak \LaTeX (showstopper?)
- Making slides is inherently a graphical activity, and having a WYSIWIG interface is useful (necessary?)



Slide Mode in L^AT_EX

- Original slide mode: SliTeX
- Limited capabilities: can't display colors
- Use via the `\documentclass{slides}` command.



Seminar Mode in L^AT_EX

- Improvement to SliTeX, displays colors, advanced formatting commands
- Use via the `\documentclass{seminar}` command.
- Can define custom headers and footers, and different slide styles

This is the default slide style in seminar mode. The slide is enclosed in a box, nothing is in the header, and the page number is in the footer.

This style is toggled by the `\slideframe{plain}` command.

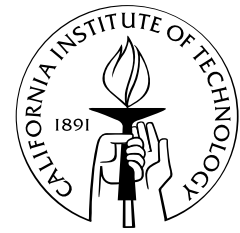
There are other slides available as well. You can use a double box with the `\slideframe{double}` command...

...a shadow box with the `\slideframe{shadow}`...

...or an oval-shaped box with the `\slideframe{oval}` command.

I prefer not having a slideframe at all so I can define my own header and footer.

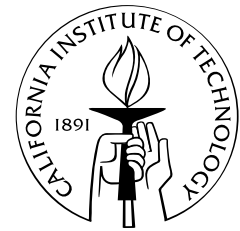
You can turn off the slideframe with the `\slideframe{none}` command.



Defining your own headers and footers

I prefer not having a slideframe at all so I can define my own header and footer.

You can turn off the slideframe with the `\slideframe{none}` command.

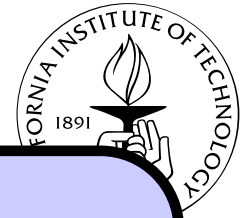


Defining your own headers and footers

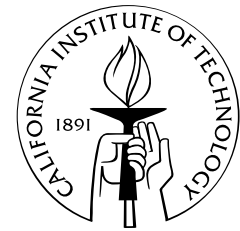
Here's the command I use to define the header and the footer:

```
\newpagestyle{MSC-Logo}
  {\hfil\Large\textbf{\textcolor{blue}{\thetitle}}\hfil
    \includegraphics[scale=0.1]{cit_logo.eps}}
{\hfil
  \tiny\textcolor{red}{Materials and Process Simulation Center}
\hfil\thepage}
```

Then I just use the command `\pagestyle{MSC-Logo}` to turn on my new mode.



You can also set the background to be a different color, but I'm a fan of white backgrounds, so that's what I use.

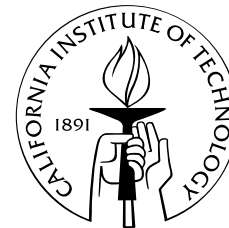


Other tricks

The package PPower4 is a Java program that can read in a \LaTeX file and put pauses and other effects in the file.

I'm

not a big fan of these effects, so I don't use them. But you can look at <http://www-sp.iti.informatik.tu-darmstadt.de/software/ppower4> for more information.



Putting graphics in your slides

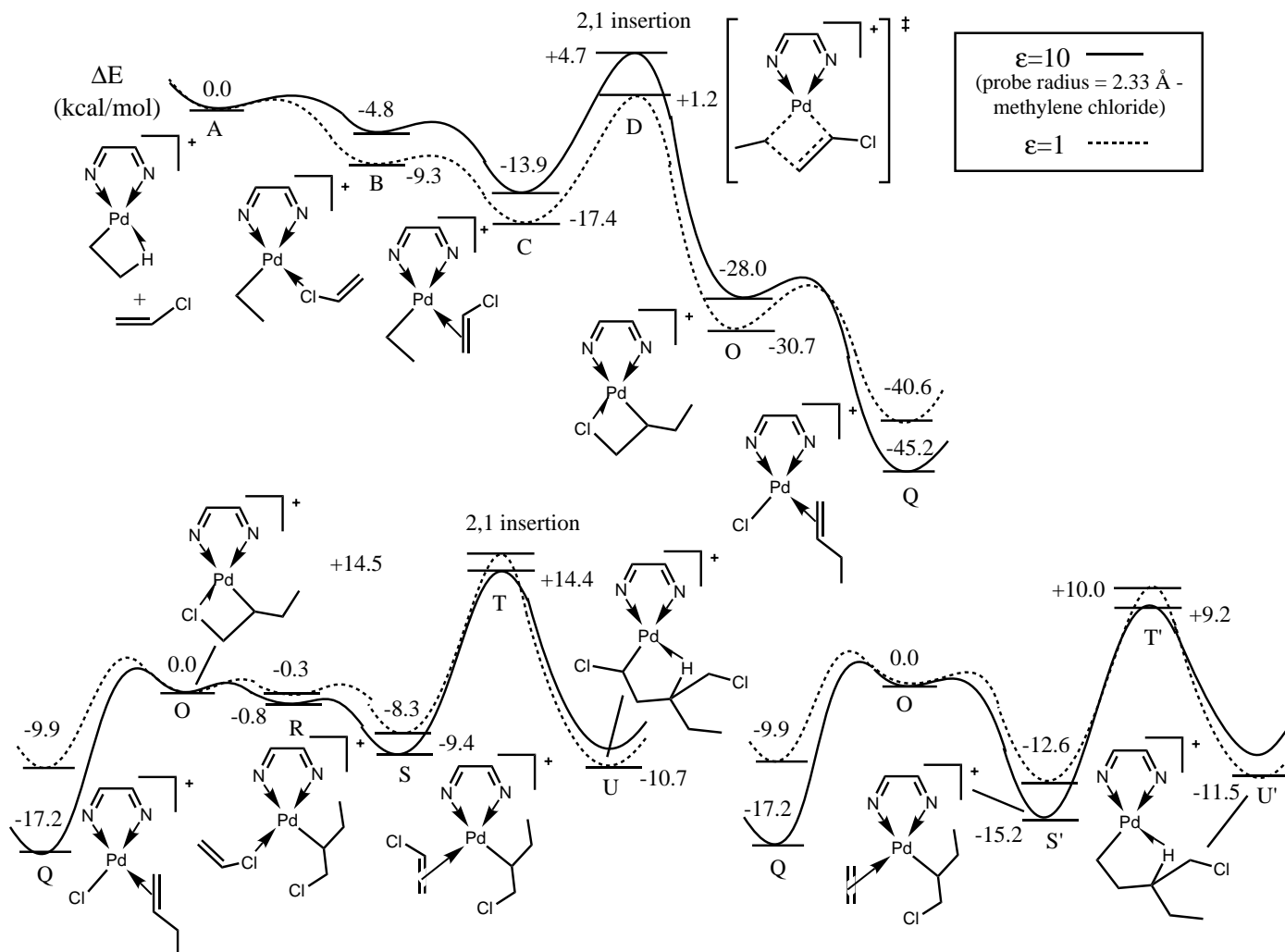
Can't have a talk without graphics! \LaTeX can only input encapsulated Post Script (EPS) files. Here are programs that output EPS files:

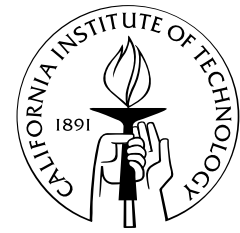
Chemical structures Chemdraw outputs beautiful EPS structures.

Vector graphics The *dia* program under Linux, or the Canvas or Illustrator programs on Windows output very nice vector graphics to the EPS format.

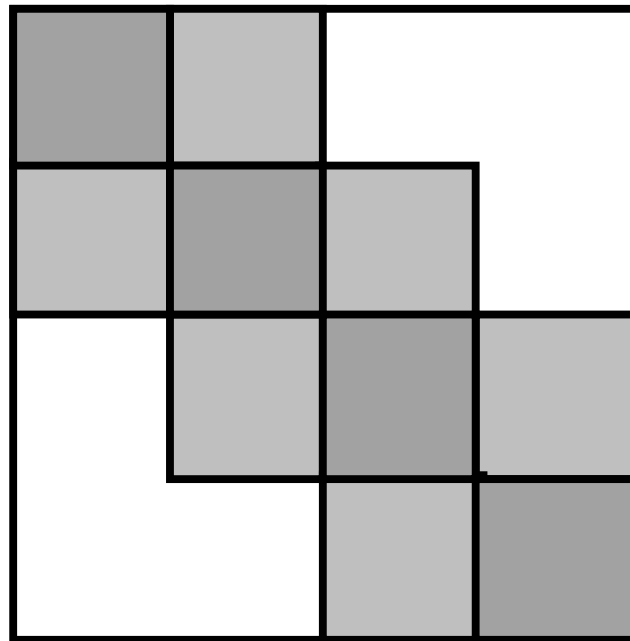
Plots Gnuplot outputs EPS structures on either Windows or Linux.

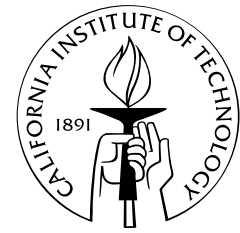
Chemical Structures



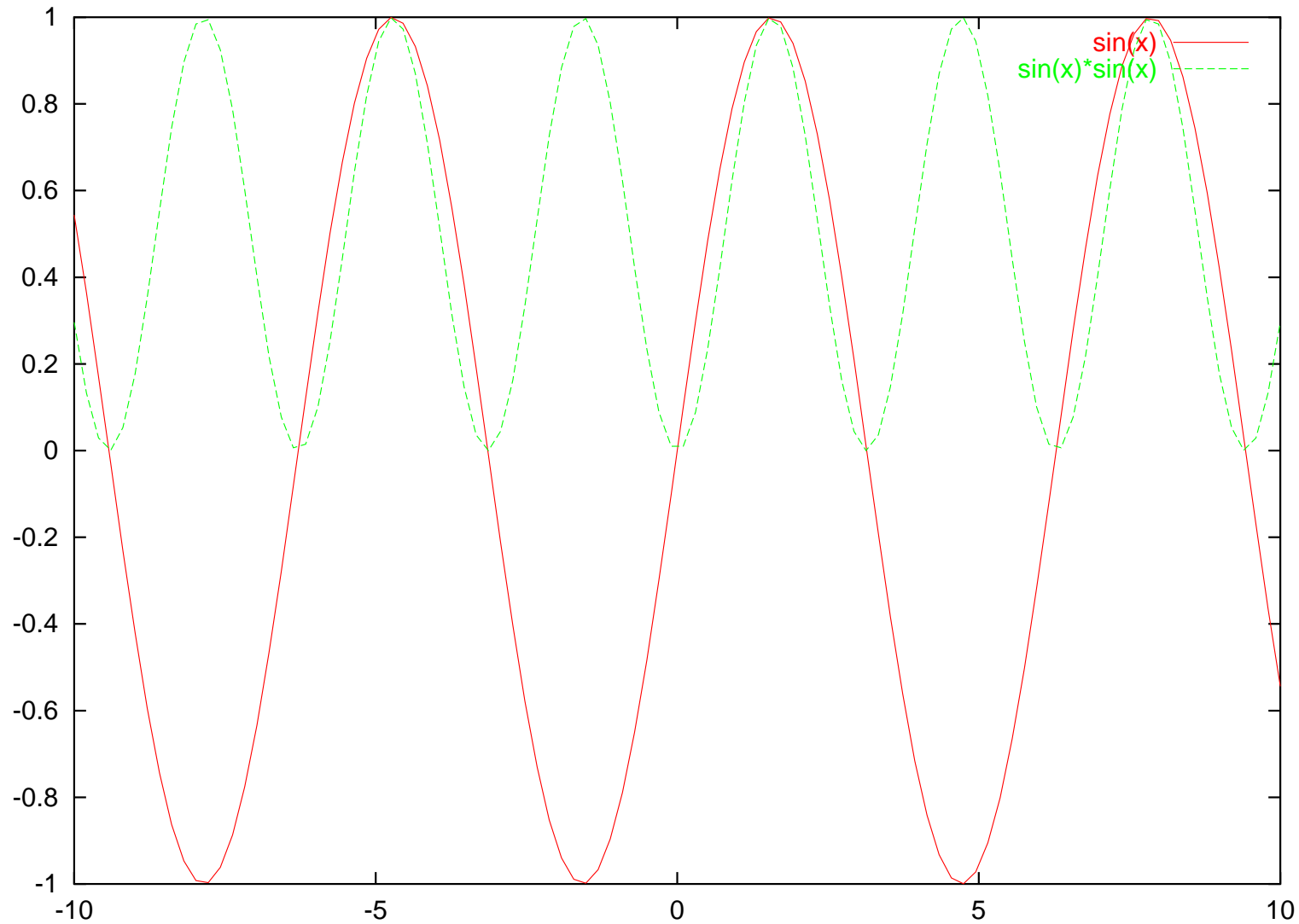


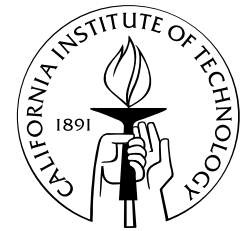
Vector Graphics





Gnuplot Plots





Useful L^AT_EX Macros

- The macro

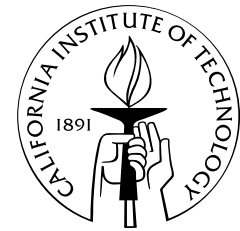
```
\newcommand{\chem}[1]{\ensuremath{\mathrm{#1}}}
```

allows chemical formulae such as C₂H₆ to be input as `\chem{C_2H_6}`.

- The macro

```
\newcommand{\bracket}[3]{\ensuremath{\left\langle\right.\left|{\#1}\right|\left|{\#2}\right|\left|{\#3}\right|\right\rangle}}
```

allows Dirac brackets such as $\langle \Psi | \hat{H} | \Psi \rangle$ to be input as `\bracket{\Psi}{\hat{H}}{\Psi}`.



Making good PDF files in L^AT_EX

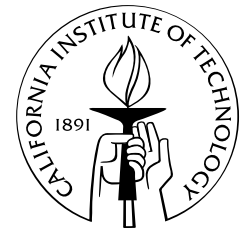
- Need to use proper fonts

Screen Fonts are optimized to look good on computer monitors

Printer Fonts are optimized to look good on printouts

Type1 Fonts generally are optimized for both

- L^AT_EX now has Type1 versions of all of their fonts
- `dvips -Ppdf -o file.ps file.dvi` correctly includes the Type1 fonts when making ps files.
- RPM will upgrade L^AT_EX and properly patch the `dvipdf` file.



Presentations with PDF Files

- Ctrl-L in Acrobat Reader redisplay the file in full-screen mode.
- PgDn and PgUp advance and go back in the presentation.
- Esc returns to normal Acrobat Reader display.