Template presentation for the Ithaca Beamer Theme

Host University, Oct 4th, 2013

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In collaboration with Colaborator 1 and Colaborator 2

Journal of Cool Beans [arXiv:1234.5678]
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   1.3 Colors
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Ithaca Beamer Theme 2013

Main features

The Ithaca Beamer theme includes most of the features found in Flip’s theme and adds some of its own. This features include:

- A flat, consistent look.
- Section and subsection shown at the top bar.
- Option for large ‘slide number / total slides’ on top bar.
- Option for watermark on top of a gradient background.
- Option to hide the footline and change bullet shape.
- Choice between a grey and a yellowish background.
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Flip’s vs. Ithaca Beamer Theme

The Ithaca theme was created out of Flip’s theme to have a Beamer template that has a closer alignment to the Cornell Brand Book. It uses the official Cornell logo, and color palette.
Different options for different talks
Because one size may not fit all

This slide showcases all the options included in the Ithaca beamer theme. The options chosen to create this slide are:
- nobigpagenumber. For a more discrete page counter.
- watermark=BG_both. A nice not-too-distracting background. But, of course you can change this to whatever you want!
- nofootline. If you feel like you need more space, you can always eliminate the footline.
- bullet=square. For an even “flatter” look.
- grey. I prefer the yellowish background as it looks warmer. But a neutral grey is always a good choice.
Predefined theorem environments

Using blocks for theorems and stuff

The following \textit{AMS-LaTeX} environments are already predefined:

Theorem-like environments

The environments theorem, proposition, conjecture, claim, algorithm, axiom and criterion produce an alert block.
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Definition-like environments

On the other hand, the environments definition, condition, case, exercise, notation and question produce a simple, neutral block.
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**Definition-like environments**

On the other hand, the environments definition, condition, case, exercise, notation and question produce a simple, neutral block.

**Example-like environments**

Finally, the environments example, remark, summary, observation, conclusion and acknowledgement produce an example block.
Ithaca color palette
Because life is full of color

The Ithaca Beamer theme includes all the colors appearing in the Cornell Brand Book.
Ithaca color palette
Because life is full of color

The Ithaca Beamer theme includes all the colors appearing in the Cornell Brand Book.

They can be called by their PMS names. Keep in mind that printed and on-screen colors may look very different.
# Cornell Brand Book colors

Official PMS names

## Primary Color Palette

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Cool Grey 11</td>
<td></td>
</tr>
</tbody>
</table>

## Secondary Color Palette

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>403</td>
<td>7458</td>
</tr>
<tr>
<td>warm grey 3</td>
<td>7493</td>
</tr>
<tr>
<td>5635</td>
<td>7462</td>
</tr>
<tr>
<td>5845</td>
<td>7463</td>
</tr>
<tr>
<td>032</td>
<td></td>
</tr>
<tr>
<td>144</td>
<td></td>
</tr>
<tr>
<td>369</td>
<td></td>
</tr>
<tr>
<td>process blue</td>
<td></td>
</tr>
</tbody>
</table>
The color wheel

Primary, secondary and tertiary colors

The Ithaca Beamer theme also provides the 12 primary, secondary and tertiary colors of the color wheel.
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To use them just call them by name, they are:

| Color wheel names   |   |   |
|---------------------|--|--|  |
| red                 | green | blue |
| orange              | spring green | violet |
| yellow              | cyan | magenta |
| chartreuse          | azure | rose |
The Y color wheel

The color PMS 187 is also known as carnelian. The Ithaca theme provides a Y-version of the color wheel based on this color.
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This new colors have the same hue as the originals, the same luminance (Y) as carnelian, and are chosen to be as colorful as possible subject to this conditions.
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Y version of the Color wheel

<table>
<thead>
<tr>
<th>Y red</th>
<th>Y green</th>
<th>Y blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y orange</td>
<td>Y spring green</td>
<td>Y violet</td>
</tr>
<tr>
<td>Y yellow</td>
<td>Y cyan</td>
<td>Y magenta</td>
</tr>
<tr>
<td>Y chartreuse</td>
<td>Y azure</td>
<td>Y rose</td>
</tr>
</tbody>
</table>
Finally, there is also a C version of the color wheel.
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This colors have the same hue and luminance as the Y colors, but their colorfulness relative to the Y colors is the same as the colorfulness of carnelian relative to Y red.
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<table>
<thead>
<tr>
<th>C version of the Color wheel</th>
</tr>
</thead>
<tbody>
<tr>
<td>C red</td>
</tr>
<tr>
<td>C orange</td>
</tr>
<tr>
<td>C yellow</td>
</tr>
<tr>
<td>C chartreuse</td>
</tr>
<tr>
<td>C green</td>
</tr>
<tr>
<td>C spring green</td>
</tr>
<tr>
<td>C cyan</td>
</tr>
<tr>
<td>C azure</td>
</tr>
<tr>
<td>C blue</td>
</tr>
<tr>
<td>C violet</td>
</tr>
<tr>
<td>C magenta</td>
</tr>
<tr>
<td>C rose</td>
</tr>
</tbody>
</table>
Color changing commands

The following \alert-type commands allow for an easy access to some of the most frequently used colors. The font displayed is the font used by the corresponding command.
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<table>
<thead>
<tr>
<th>\alert</th>
<th>\eg</th>
<th>\comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>\Alert</td>
<td>\Eg</td>
<td>\Comment</td>
</tr>
<tr>
<td>\ALERT</td>
<td>\EG</td>
<td>\COMMENT</td>
</tr>
</tbody>
</table>

The ‘comment’ styles are automatically footnote-sized.
Mix and match
Mixing Ithaca with other Beamer themes

The Ithaca theme was designed with maximal compatibility and flexibility in mind. It can be combined in a satisfactory way with several other beamer themes.
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It consists of:

- The solidinfolines outer theme
- The flat inner theme
- The BigRed color theme
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It consists of:
- The solidinfolines outer theme
- The flat inner theme
- The BigRed color theme

For maximal compatibility, the BigRed color theme is split into the bear outer color theme and the carnelian inner color theme.
In the mix and match folder, you can see this talk using different theme combinations that I find particularly appealing.
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You may want to try some combinations of your own. Some general advices in this regard are:

- When using beamer color themes, keep in mind that you can obtain different results by changing the order in which you load the packages. Some themes (for example Hannover) look better when you load the carnelian color theme first.

- The solidinfolines outer theme depends on the bear color theme to get the colors for the headline and footline. This colors are left blank in the default theme, and can lead to unpleasent results if it’s not used carefully.
Absolute placement

This slide demonstrates

- absolute placement of images using the `put` command in the `picture` environment.

- Note the overlap. Further, note that the particular depend on where the picture is defined.

  If you define the picture at the top of the slide, then it will have fixed coordinates (using the `[t]` alignment). The cost is that the image is then behind all the text.

- Beamer respects `png` and `pdf` transparencies.

  Image:
  

Some alternatives for placing images: http://www.texample.net/tikz/examples/transparent-png-overlay/
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  \textbf{Image:}

  \url{http://www.smbc-comics.com/index.php?db=comics&id=2109}

Some alternatives for placing images: \url{http://www.texample.net/tikz/examples/transparent-png-overlay/}
Columns

Sometimes it’s useful to split the screen

Here’s a column where I can write a bunch of things.
There are all sorts of things I can do in paragraph form.

• Here’s a column
• where I can itemize
• a bunch of things.

Blocks

...work in here too.
Including a table

Here’s how you include a table.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Expt.</th>
<th>Bound (90% CL)</th>
<th>SM Prediction</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B_{s}^0 \rightarrow \mu^+\mu^-$</td>
<td>CDF II</td>
<td>$&lt; 4.7 \times 10^{-8}$</td>
<td>$(4.8 \pm 1.3) \times 10^{-9}$</td>
</tr>
<tr>
<td>$B_{d}^0 \rightarrow \mu^+\mu^-$</td>
<td>CDF II</td>
<td>$&lt; 1.5 \times 10^{-8}$</td>
<td>$(1.4 \pm 0.4) \times 10^{-10}$</td>
</tr>
<tr>
<td>$B_{s}^0 \rightarrow \mu^+e^-$</td>
<td>CDF II</td>
<td>$&lt; 2.0 \times 10^{-7}$</td>
<td>$\approx 0$</td>
</tr>
<tr>
<td>$B_{d}^0 \rightarrow \mu^+e^-$</td>
<td>CDF II</td>
<td>$&lt; 6.4 \times 10^{-8}$</td>
<td>$\approx 0$</td>
</tr>
</tbody>
</table>
Some equations

As if you didn’t think Beamer could typeset equations...

\[
\left( \frac{\Lambda}{m} \right)^b = \left( \frac{\Lambda_L}{m} \right)^{bL} \Rightarrow \left( \frac{\Lambda_{N,F}}{m} \right)^{3N-F} = \left( \frac{\Lambda_{N,F-1}}{m} \right)^{3N-(F-1)}
\]

\[
G_k(z, z') = \frac{(R')^2}{R} G_y(x, x') = \frac{(R')^2}{R} \frac{xx'}{y} \frac{T(x, y)T(x', y)}{S(wy, y)}
\]

\[
f_c = \sqrt{\frac{1 - 2c}{1 - (R/R')^{1-2c}}}
\]
2.4 Watermark

Design Notes
Watermarking

- Watermarks need to really be transparent or else the background won’t show through, e.g. if your background color is not plain white. Fortunately, PGF respects png transparency so watermark images can be saved as png images. Alternately, if you have a nice vector representation in TikZ, you can use the “opacity” option to make it semi-opaque.

- The second problem with watermarks is that even once you have a transparent image, how do you stick it behind the main text of each slide? This is surprisingly subtle. The solution is to put all watermarks in the “sidebar right” region controlled by the outer theme style. Anything placed here will remain behind the main text of the screen.
Miscellaneous

• Use \only<2> to show something for one overlay only
• Can also use <2->
• For example, you can highlight a word after the first overlay
• If you use \uncover<3-> you get a ... see?
• Protip: use \textbackslash to get a backslash
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• Use `\only<2>` to show something for one overlay only
• Can also use `<2->`
• For example, you can **highlight** a word after the first overlay
• If you use `\uncover<3->` you get a **space** … see?
• Protip: use `\textbackslash` to get a backslash
Problems and Kludges

Things to work on

- There seems to be a bug in Beamer where the footnote color (defined using \texttt{setbeamercolor{footnote}} and \texttt{setbeamercolor{footnote mark}}) contaminates the normal text color. For now I suggest not using footnotes. They’re of questionable use in a talk, anyway.

- Even though comment text is footnote-sized, it still has normal text line spacing. The \texttt{setspace} environment can fix this, but it forces a newline and it seems to make footnotes disappear.
Problems and Kludges

XeLaTeX, LuaLaTeX

XeLaTeX doesn’t allow one to use `setbeamertemplate[background canvas]` multiple times (e.g. to have one slide with a different background). A fix is to include `\def \pgfsysdriver{pgfsys-dvipdfmx.def}` before the `documentclass`, but this ends up breaking the arrows pointing to nodes.

In principle, LuaLaTeX can solve this, but that also requires some work since it only looks at Open Type Fonts.

http://tex.stackexchange.com/questions/29497/xelatex-preventing-beamer-from-using-different-backgrounds
Acknowledgements

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I’ve tried to maintain lots of comments in the .tex and .sty files to help other template designers. If you have something to say about them, Please don’t hesitate to contact me!
Extra page: Additional hints

Look, it doesn’t add to the total page count!

- Be sure to turn off any auto-notifiers (e.g. GMail)
- Don’t ever go over time.
- TikZ transparency trick: http://www.texample.net/tikz/examples/transparent-png-overlay/
- Use \texttt{addtocounter\{framenum\}[-1]} for extra slides (like this one) to prevent it from screwing up the page numbering.