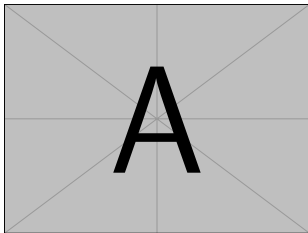




DALHOUSIE
UNIVERSITY

DALHOUSIE BEAMER TEMPLATE

© K. R. BRYENTON (2024)



Kyle R. Bryenton
Dalhousie Department of Physics & Atmospheric Science
July 31, 2024

Section 1 showcases a combination of the custom functions: `\uncovergraphics{}` and `\footnotecite{}`. These can be used to highlight different projects you've worked on.

Section 2 showcases various examples of how this theme treats different elements. It also, hopefully, serves as a useful starting points for those new to Beamer/L^AT_EX. It covers math, references, tables, blocks, uncovering, pauses, columns, graphics, itemize, transparency, and other useful tricks for newcomers.

Section 3 is a bulk-standard conclusion slide template, and also an appendix slide example.

Notes:

- You may need to build a few times to get the title page / references / links to properly render
- Always double-check your final build to make sure everything is as it should be
- This example showcases both this theme works and also some tricks I've learned over the years
- My aim is to be able to give this template to someone new to L^AT_EX and it will give them almost everything they need to jump into their first beamer presentation

Showcase: Showing Off Your Different Projects

Examples: Different Types of Body Slides

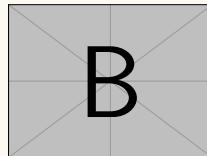
Conclusions

The 1st project you worked on



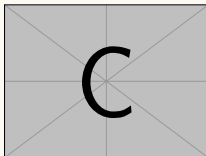
Did you publish this yet? Cite it, **bold your name in the author list**, and include a pretty graphic from it. Notice the `\doi{ }` command. It's a clickable link using `\href{ }`.

Delocalization Error: Greatest Outstanding Challenge



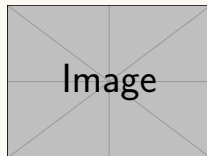
K. R. Bryenton, A. A. Adeleke, S. G. Dale, & E. R. Johnson, *WIREs Comp. Mol. Sci.* 13, e1631 (2023). doi: 10.1002/wcms.1631

The 3rd project



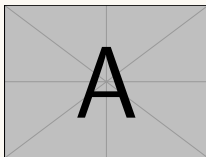
If the `\footnotecite{ }`s don't have the same number of lines (vertical size) it can mess up spacing. If all else fails, you can use ``. See the last block's code.

Your current project



K. R. Bryenton, & E. R. Johnson, Manuscript in preparation (2024)

The 1st project you worked on



Did you publish this yet? Cite it, **bold your name in the author list**, and include a pretty graphic from it. Notice the `\doi{ }` command. It's a clickable link using `\href{ }`.

Delocalization Error: Greatest Outstanding Challenge



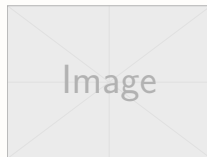
K. R. Bryenton, A. A. Adeleke, S. G. Dale, & E. R. Johnson, *WIREs Comp. Mol. Sci.* 13, e1631 (2023). doi: 10.1002/wcms.1631

The 3rd project



If the `\footnotecite{ }`s don't have the same number of lines (vertical size) it can mess up spacing. If all else fails, you can use ``. See the last block's code.

Your current project



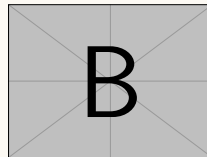
K. R. Bryenton, & E. R. Johnson, Manuscript in preparation (2024)

The 1st project you worked on



Did you publish this yet? Cite it, **bold your name in the author list**, and include a pretty graphic from it. Notice the `\doi{ }` command. It's a clickable link using `\href{ }`.

Delocalization Error: Greatest Outstanding Challenge



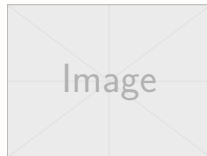
K. R. Bryenton, A. A. Adeleke, S. G. Dale, & E. R. Johnson, *WIREs Comp. Mol. Sci.* 13, e1631 (2023). doi: 10.1002/wcms.1631

The 3rd project



If the `\footnotecite{ }`s don't have the same number of lines (vertical size) it can mess up spacing. If all else fails, you can use ``. See the last block's code.

Your current project



K. R. Bryenton, & E. R. Johnson, Manuscript in preparation (2024)

The 1st project you worked on



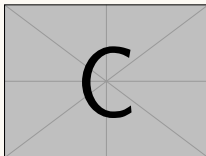
Did you publish this yet? Cite it, **bold your name in the author list**, and include a pretty graphic from it. Notice the `\doi{ }` command. It's a clickable link using `\href{ }`.

Delocalization Error: Greatest Outstanding Challenge



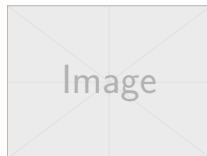
K. R. Bryenton, A. A. Adeleke, S. G. Dale, & E. R. Johnson, *WIREs Comp. Mol. Sci.* 13, e1631 (2023). doi: 10.1002/wcms.1631

The 3rd project



If the `\footnotecite{ }`s don't have the same number of lines (vertical size) it can mess up spacing. If all else fails, you can use ``. See the last block's code.

Your current project



K. R. Bryenton, & E. R. Johnson, Manuscript in preparation (2024)

The 1st project you worked on



Did you publish this yet? Cite it, **bold your name in the author list**, and include a pretty graphic from it. Notice the `\doi{ }` command. It's a clickable link using `\href{ }`.

Delocalization Error: Greatest Outstanding Challenge



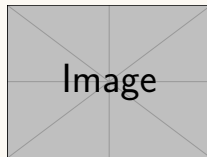
K. R. Bryenton, A. A. Adeleke, S. G. Dale, & E. R. Johnson, *WIREs Comp. Mol. Sci.* 13, e1631 (2023). doi: 10.1002/wcms.1631

The 3rd project



If the `\footnotecite{ }`s don't have the same number of lines (vertical size) it can mess up spacing. If all else fails, you can use ``. See the last block's code.

Your current project



K. R. Bryenton, & E. R. Johnson, Manuscript in preparation (2024)

Showcase: Showing Off Your Different Projects

Examples: Different Types of Body Slides

Math and `\footnotecite{}`

Pretty Tables

Itemize

To Do List

Conclusions

MATH AND `\footnotecite{}`

Note the extra spacing at the top of this slide via `\vspace*{2em}`

$$\begin{aligned}
 E_{\text{XDM}} &= - \sum_{j < i} \sum_{n=6,8,10} f_n^{\text{BJ}}(R_{ij}) \frac{C_{n,ij}}{R_{ij}^n} \\
 &= - \sum_{j < i} \left[f_6^{\text{BJ}}(R_{ij}) \frac{C_{6,ij}}{R_{ij}^6} + f_8^{\text{BJ}}(R_{ij}) \frac{C_{8,ij}}{R_{ij}^8} + f_{10}^{\text{BJ}}(R_{ij}) \frac{C_{10,ij}}{R_{ij}^{10}} \right].
 \end{aligned}$$

When you use `\footnotecite{}`, it vertically fills the slide to get the positioning the same each time

$$d_{\text{X}\sigma}(\mathbf{r}) = \left[\int h_{\text{X}\sigma}(\mathbf{r}, \mathbf{s}) s d\mathbf{s} \right] - \mathbf{r}.$$

Because of this, it can cramp the top of the slide. You can add a bit of spacing to fix this.

TABLE USING THE BOOKTABS PACKAGE

If you want a traditional but polished look, you can make use of the booktabs package's `\toprule`, `\midrule`, and `\bottomrule`.

XCDM vs. XDM: Mean Absolute Error (MAE) % Change

Benchmark	MAE Chg.	Description
KB49	↓ 1%	Intermolecular Complexes
MolC6	↓ 15%	Molecular C_6 Coefficients
S22×5	~	Small Molecular Dimers & Non-Eq. Geoms
S66×8	~	Small Molecular Dimers & Non-Eq. Geoms
3B-69	↓ 2%	Small Molecular Trimers
Heavy28	↓ 3%	Complexes with Heavy Atom Hydrides
L7	↓ 2%	Large Molecular Complexes
S6L	↓ 10%	Large Molecular Complexes
X23	↓ 5%	Molecular Crystals
Ice13	~	Ice Crystal Phases
HalCrys4	↑ 1%	Halogen Crystals
LM26	↑ 5%	Layered Materials

TABLE USING \BLOCK{}

- Alternatively, you can use a block to get a splash of colour with your table (or theorems, etc).
- Using columns can also help make room for important takeaways on the side.

XCDM vs. XDM: Mean Absolute Error (MAE) % Change

Benchmark	MAE Chg.	Description
KB49	↓ 1%	Intermolecular Complexes
MolC6	↓ 15%	Molecular C_6 Coefficients
S22×5	~	Small Molecular Dimers & Non-Eq. Geoms
S66×8	~	Small Molecular Dimers & Non-Eq. Geoms
3B-69	↓ 2%	Small Molecular Trimers
Heavy28	↓ 3%	Complexes with Heavy Atom Hydrides
L7	↓ 2%	Large Molecular Complexes
S6L	↓ 10%	Large Molecular Complexes
X23	↓ 5%	Molecular Crystals
Ice13	~	Ice Crystal Phases
HalCrys4	↑ 1%	Halogen Crystals
LM26	↑ 5%	Layered Materials

Observations:

- Our previous conjecture that dynamical correlation doesn't matter much was generally correct
- MolC6's improvement shows we're accurately modelling the physics
- XCDM typically captures an additional 0.02-0.10 kcal/mol binding energy
- If XDM overbinds, XCDM often (but not always) compounds the error

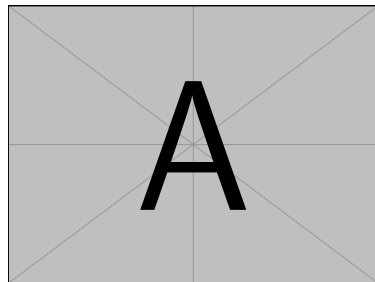
ITEMIZE

Here we see an example where we control what points are visible in the `itemize` environment.

You can control transparency using the command in the slide header: `\setbeamercovered{transparent=30}`

Using `Itemize` to show/hide:

- Visible on slide 1 only
- Visible on slide 2 onwards
- Visible Item shows up only until slide 2
- Visible on all slides
- Visible on slides 1-2 and 4



Another use of `\footnotecite{}` is picture labelling

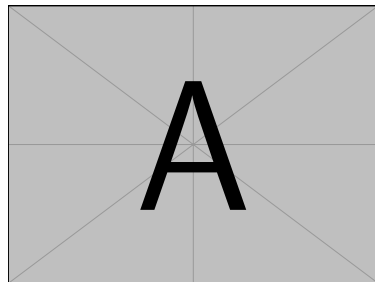
ITEMIZE

Here we see an example where we control what points are visible in the `itemize` environment.

You can control transparency using the command in the slide header: `\setbeamercovered{transparent=30}`

Using `Itemize` to show/hide:

- Visible on slide 1 only
- Visible on slide 2 onwards
- Visible Item shows up only until slide 2
- Visible on all slides
- Visible on slides 1-2 and 4



Another use of `\footnotecite{}` is picture labelling

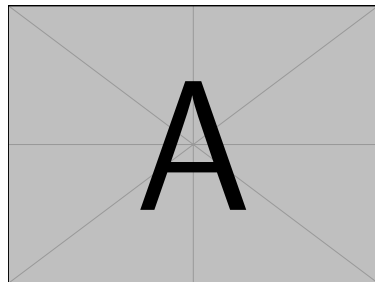
ITEMIZE

Here we see an example where we control what points are visible in the `itemize` environment.

You can control transparency using the command in the slide header: `\setbeamercovered{transparent=30}`

Using `Itemize` to show/hide:

- Visible on slide 1 only
- Visible on slide 2 onwards
- Visible Item shows up only until slide 2
- Visible on all slides
- Visible on slides 1-2 and 4



Another use of `\footnotecite{}` is picture labelling

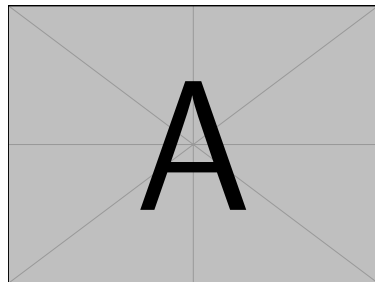
ITEMIZE

Here we see an example where we control what points are visible in the `itemize` environment.

You can control transparency using the command in the slide header: `\setbeamercovered{transparent=30}`

Using `Itemize` to show/hide:

- Visible on slide 1 only
- Visible on slide 2 onwards
- Visible Item shows up only until slide 2
- Visible on all slides
- Visible on slides 1-2 and 4



Another use of `\footnotecite{}` is picture labelling

To Do List

1) Here is the first project I'm working on

- ✓ I have done this
- ✓ and this
- ✓ and this!
- ✗ But not this
- ✗ ... or this

2) Want to only talk about the first project for now?

- ✓ You can leave the second project wrapped by `\transparent{}`
- ✓ Then you can come back to it later in the talk.
- ✓ Just copy/paste this entire slide into a point later in the talk once you need it.
- ✗ Then, just switch which list is wrapped by `\transparent{}` !

Showcase: Showing Off Your Different Projects

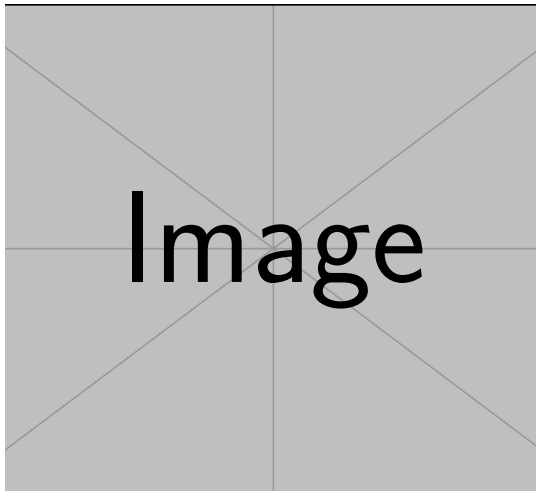
Examples: Different Types of Body Slides

Conclusions

KEY TAKEAWAYS

1. I hope this template is useful to you.
2. I encourage anybody to share or modify any/all of these files.
3. The .sty files should be easy to modify to suit another university's colour scheme. You will have to generate your own background image for the title slide, though.
4. I will keep my template and this example on my GitHub:
<https://github.com/KyleBryenton/Dalhousie-Beamer-Theme>

ACKNOWLEDGEMENTS



⇐ Your Group Photo

- Note that you can use “trim”
- within `\includegraphics` to
- crop/shape an image without
- having to manually crop it.
- It's great for group photos!

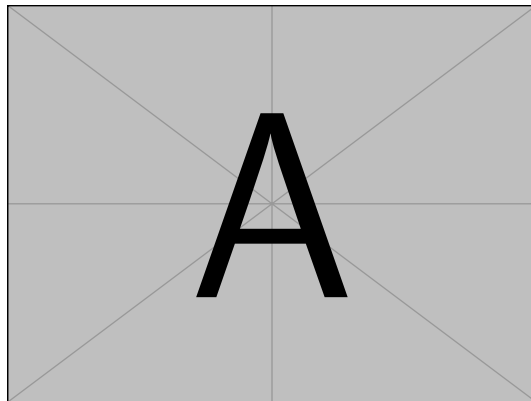
Funding and Resources:

- Funding
- Funding
- Funding
- Your University
- Computational Resource
- Computational Resource
- Computational Resource

QUESTIONS?

WANT MY SLIDES?

(I LIKE TO ADD A QR CODE HERE, AND ALSO HYPERLINK THE IMAGE ITSELF.)



[HTTPS://GITHUB.COM/KYLEBRYENTON/DALHOUSIE-BEAMER-THEME](https://github.com/KyleBryenton/Dalhousie-Beamer-Theme)

KYLE.BRYENTON@DAL.CA



Example appendix slide.

Another example appendix slide. Heavily-sectioning in the appendix is useful for question periods. Then you can quickly swap to a specific slide using the nav-bullets at the top.