

# Day 03: L<sup>A</sup>T<sub>E</sub>X Templates (CV and Beamer)



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L<sup>A</sup>T<sub>E</sub>X101

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- ▶ **Adapted from** – <https://www.learnlatex.org/>.
  - ▶ Day 1 – `learnlatex.org` lessons 1-6 (**Done!**)
  - ▶ Day 2 – `learnlatex.org` lessons 7-12 (**Done!**)
  - ▶ Day 3 –  $\text{\LaTeX}$  templates (CV/resume, beamer presentations).
- ▶ **Slides Available** – <https://github.com/mdelrosa/latex-101>.
  - ▶ Template based on Clara Pavillet's Oxford Template
- ▶ **Slack back channel**
  - ▶ UC Davis Slack channel

Templates

CV/Resume Template

Beamer Template

# Templates

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Browsing for templates, uploading projects

- ▶ Writing documents from scratch is time-consuming, difficult.
- ▶ Instead, use templates!

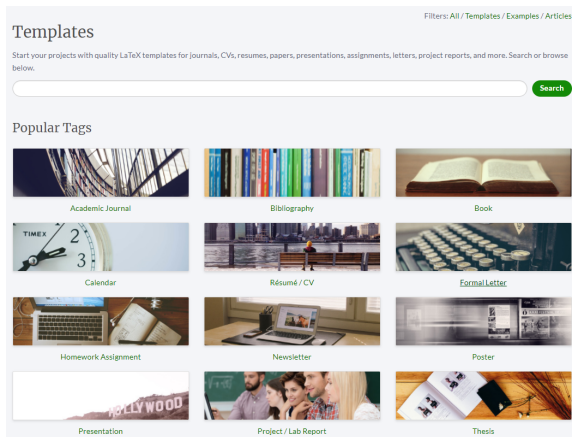


Figure 1: Template categories on Overleaf.

For academic journals, some official templates are available.


## Templates — Academic Journal

Templates tagged Academic Journal

[Show all Templates](#)


Here we provide a selection of academic journal templates for articles and papers which automatically format your manuscripts in the style required for submission to that journal. Thanks to the partnerships we're building within the publishing community, you can also now submit your paper directly to a number of journals and other editorial and review services via the publish menu in the editor.

Filters: [All](#) / [Templates](#) / [Examples](#) / [Articles](#)




**Open Geomechanics Template**

This is the official template for papers to be submitted to Open Geomechanics.



**PNAS Nexus Official**

This is a template and guide for preparing papers for PNAS Nexus. Oxford University Press



**Association for Computing Machinery... Official**

This is a sample file for ACM large trim, single column. Association for Computing Machinery (ACM)

Figure 2: Academic journal templates on Overleaf.

Can also upload a L<sup>A</sup>T<sub>E</sub>X project as a .zip file

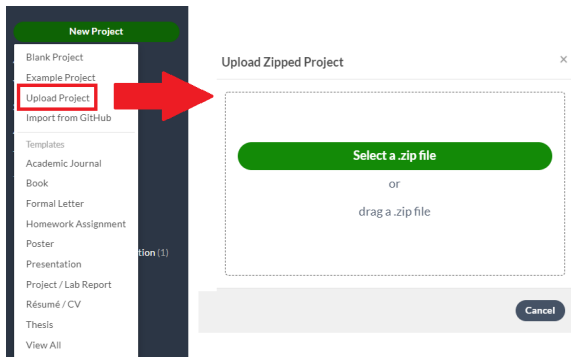


Figure 3: “New Project” → “Upload project”.

# CV/Resume Template

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Today, we'll work through a few templates.

1. Go to <https://github.com/mdelrosa/latex101/releases>
2. Find the latest release
3. Download CV.zip and davis\_beamer\_template.zip



Figure 4: .zip files for today's exercises.

Let's check out the CV project!

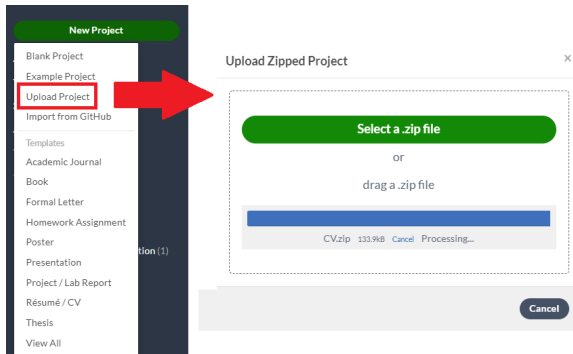


Figure 5: Uploading our CV project.

Project includes multiple files (`.tex`, `.cls`)

The screenshot shows a LaTeX editor interface. On the left, a file explorer lists the project files: `CV_template.fdb_latexmk`, `CV_template.fls`, `CV_template.pdf`, `CV_template.tex` (highlighted), and `resume.cls`. The main editor area displays the rendered CV for John Doe.

**JOHN DOE**

📍 Davis, CA    📞 (123)-456-7890    ✉️ [jdoe@ucdavis.edu](mailto:jdoe@ucdavis.edu)    🌐 [linkedin.com/in/johndoe](https://linkedin.com/in/johndoe)

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**CAREER SUMMARY**

I am a driven professional with extensive knowledge in  $\text{\LaTeX}$ .

---

**PROJECTS/RESEARCH EXPERIENCE**

<b>Project 3</b> We proposed to do something. We achieved 95% performance increase in this particular metric.	2020-Present
<b>Project 2</b> Summary of what you did.	2019-2020
<b>Project 1</b> Summary of what you did..	2016-2019

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**SKILLS**

Computer: Proficient with  $\text{\LaTeX}$   
Languages: English

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**EDUCATION**

College, Davis, CA Degree, GPA: 4.0/4.0 Anticipated graduation date: . Relevant Coursework: $\text{\LaTeX}$ Workshop 2022, ... Awards: The Doest. John (2022)	Start - Finish
College, Davis, CA M.Sc. Degree, GPA: 4.0/4.0 Anticipated graduation date: . Relevant Coursework: $\text{\LaTeX}$ Workshop 2022, ... Awards: The Doest. John (2022)	Start - Finish

---

**WORK EXPERIENCE**

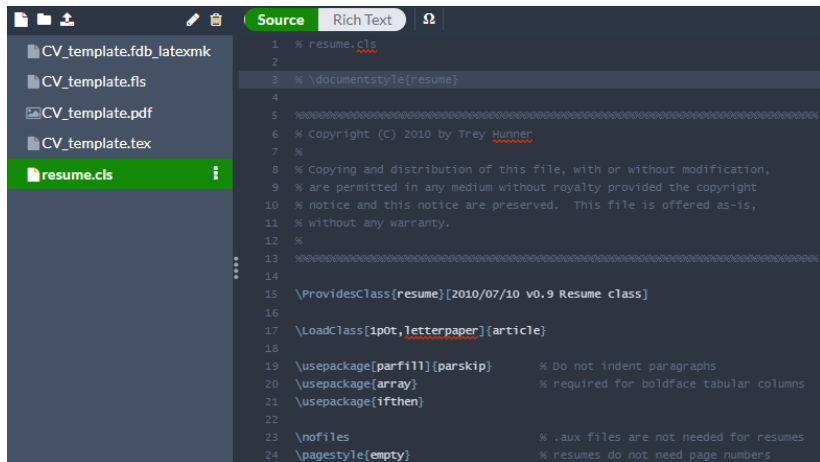
Role — Company, Davis, CA • Major accomplishments	Start - Finish
Role — Company, Davis, CA • Major accomplishments	Start - Finish
Role — Company, Davis, CA • Major accomplishments	Start - Finish

---

**RELEVANT PUBLICATIONS**

Category/Project Name
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.cls files define custom document classes.



The screenshot shows a LaTeX editor interface with a file explorer on the left and a code editor on the right. The file explorer lists several files: CV\_template.fdb\_latexmk, CV\_template.fls, CV\_template.pdf, CV\_template.tex, and resume.cls (which is selected and highlighted in green). The code editor displays the contents of resume.cls, which is a LaTeX class file. The code includes comments, a document style declaration, a copyright notice, a license statement, and various LaTeX commands for providing and loading classes, using packages, and setting file and page styles.

```
1 % resume.cls
2
3 % \documentstyle{resume}
4
5 %=====
6 % Copyright (C) 2010 by Trey Hunner
7 %
8 % Copying and distribution of this file, with or without modification,
9 % are permitted in any medium without royalty provided the copyright
10 % notice and this notice are preserved. This file is offered as-is,
11 % without any warranty.
12 %
13 %=====
14
15 \ProvidesClass{resume}[2010/07/10 v0.9 Resume class]
16
17 \LoadClass[10pt,letterpaper]{article}
18
19 \usepackage[parfill]{parskip} % Do not indent paragraphs
20 \usepackage{array} % required for boldface tabular columns
21 \usepackage{ifthen}
22
23 \nofiles % .aux files are not needed for resumes
24 \pagestyle{empty} % resumes do not need page numbers
```

Figure 7: The resume.cls file in the CV project.

\documentclass imports the custom class from the .cls file.

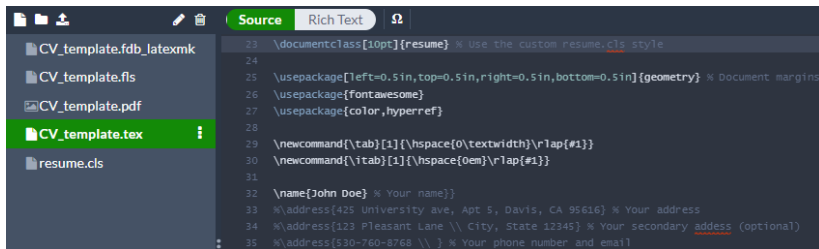


Figure 8: Importing resume from resume.cls.

- ▶ `\fa` commands define icons.
- ▶ `\hfill` creates horizontal whitespace to fill current line

```
32 \name{John Doe} % Your name
33
34 \begin{document}
35 \vspace*{-5mm}
36 \begin{center}
37 \faMapMarker~Davis, CA \hfill
38 \faPhone~(123)-456-7890\hfill
39 \faEnvelope~\href{mailto:jdoe@ucdavis.edu}{jdoe@ucdavis.edu}\hfill %this generates an hyperlink
   to your email in the PDF
40 \faLinkedinSquare~linkedin.com/in/johndoe
41 \end{center}
```



**JOHN DOE**

📍 Davis, CA

☎ (123)-456-7890

✉ [jdoe@ucdavis.edu](mailto:jdoe@ucdavis.edu)

🌐 [linkedin.com/in/johndoe](https://www.linkedin.com/in/johndoe)

Figure 9: CV header with icons for contact information.

- ▶ `\rSection`: custom Section environment.

```
46 %-----  
47 %   CAREER SUMMARY SECTION  
48 %-----  
49 \vspace*{-2mm}  
50 \begin{rSection}{Career Summary}  
51 I am a driven professional with extensive knowledge in \LaTeX.  
52 \end{rSection}
```



---

#### CAREER SUMMARY

I am a driven professional with extensive knowledge in  $\text{\LaTeX}$ .

Figure 10: CV summary with an `rSection` environment.

```
54 %-----
55 %   RESEARCH EXPERIENCE SECTION
56 %-----
57 \vspace*{-2mm}
58 \begin{rSection}{Projects/Research Experience}
59   {\bf Project 3} \hfill 2020-Present\\
60   We proposed to do something. We achieved 95\% performance increase in this particular metric.
61
62   {\bf Project 2} \hfill 2019-2020\\
63   Summary of what you did.
64
65   {\bf Project 1} \hfill 2016-2019\\
66   Summary of what you did..
67
68 \end{rSection}
```



---

## PROJECTS/RESEARCH EXPERIENCE

<b>Project 3</b> We proposed to do something. We achieved 95% performance increase in this particular metric.	2020-Present
<b>Project 2</b> Summary of what you did.	2019-2020
<b>Project 1</b> Summary of what you did..	2016-2019

Figure 11: CV `rSection` for projects/research.



- ▶ `@{text}`: Inserts ‘text’ in every row.
- ▶ `>\bfseries`: Applies bold face to entire column.
- ▶ `\hspace{3ex}`: ex denotes horizontal size of ‘x’ in the given font.

```
71 %-----
72 %   SKILLS SECTION
73 %-----
74 \vspace*{-2mm}
75 \begin{rSection}{Skills}
76 \begin{tabular}{@{} >\bfseries l @{\hspace{3ex}} l }
77 |   Computer: & Proficient with \LaTeX\
78 |   Languages: & English
79 \end{tabular}
80 \end{rSection}
```

## SKILLS

Computer: Proficient with  $\text{\LaTeX}$   
Languages: English



Figure 12: CV `rSection` for skills.

```

85 %-----
86 %   EDUCATION SECTION
87 %-----
88 \vspace*{-2mm}
89 \begin{rSection}{Education}
90   {\bf College}, \emph{Davis, CA} \hfill {Start - Finish}\\
91   \emph{Degree}, GPA: 4.0/4.0\\
92   Anticipated graduation date: .\\
93   \hspace*{5mm} {\small Relevant Coursework: \LaTeX Workshop 2022, \ldots}\\
94   \hspace*{5mm} {\small Awards: The Doest John (2022)}
95
96   {\bf College}, \emph{Davis, CA} \hfill {Start - Finish}\\
97   \emph{M.Sc. Degree}, GPA: 4.0/4.0\\
98   Anticipated graduation date: .\\
99   \hspace*{5mm} {\small Relevant Coursework: \LaTeX Workshop 2022, \ldots}\\
100  \hspace*{5mm} {\small Awards: The Doest John (2022)}
101
102 \end{rSection}

```



## EDUCATION

**College, Davis, CA**  
*Degree*, GPA: 4.0/4.0  
 Anticipated graduation date: .  
     Relevant Coursework: \LaTeX Workshop 2022, ...  
     Awards: The Doest John (2022)

Start - Finish

**College, Davis, CA**  
*M.Sc. Degree*, GPA: 4.0/4.0  
 Anticipated graduation date: .  
     Relevant Coursework: \LaTeX Workshop 2022, ...  
     Awards: The Doest John (2022)

Start - Finish

Figure 13: CV rSection for education.

```

104 %-----
105 %   WORK EXPERIENCE SECTION
106 %-----
107 \newpage
108 \begin{rSection}{Work Experience}
109   {\bf Role} | Company, \emph{Davis, CA} \hfill {Start - Finish}
110 \begin{itemize}
111   \item{Major accomplishments}
112 \end{itemize}
113   {\bf Role} | Company, \emph{Davis, CA} \hfill {Start - Finish}
114 \begin{itemize}
115   \item{Major accomplishments}
116 \end{itemize}{\bf Role} | Company, \emph{Davis, CA} \hfill {Start - Finish}
117 \begin{itemize}
118   \item{Major accomplishments}
119 \end{itemize}
120 \end{rSection}

```



#### WORK EXPERIENCE

Role — Company, <i>Davis, CA</i>	Start - Finish
• Major accomplishments	
Role — Company, <i>Davis, CA</i>	Start - Finish
• Major accomplishments	
Role — Company, <i>Davis, CA</i>	Start - Finish
• Major accomplishments	

Figure 14: CV `rSection` for work experience.

```
119 %-----
120 % PUBLICATIONS
121 %-----
122 \vspace*[-2mm]
123 - \begin{rSection}{Relevant Publications\hspace*{65mm} }
124   {\bf Category/Project Name}
125 - \begin{itemize}
126   | \item \textbf{John Doe}, James Doe, "Our very important research", in \textit{Very Important Journal}, submitted.
127   | \end{itemize}
128   {\bf Category/Project Name}
129 - \begin{itemize}
130   | \item Jean Doe, \textbf{John Doe}, "A paper where I was second author", in \textit{Important Journal}, vol. 1, pp. 1-3, 2022.
131   | \end{itemize}
132 \end{rSection}
```

## RELEVANT PUBLICATIONS



### Category/Project Name

- John Doe, James Doe, "Our very important research", in *Very Important Journal*, submitted.

### Category/Project Name

- Jean Doe, John Doe, "A paper where I was second author", in *Important Journal*, vol. 1, pp. 1-3, 2022.

Figure 15: CV `rSection` for publications.

# Beamer Template

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Slide decks for academic presentations.

**beamer**: most common L<sup>A</sup>T<sub>E</sub>X package for presentations

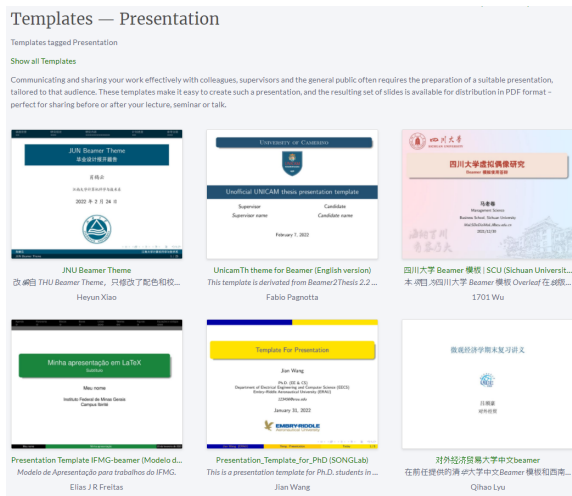


Figure 16: Overleaf's presentation templates. Most are beamer!

Let's check out the beamer project!

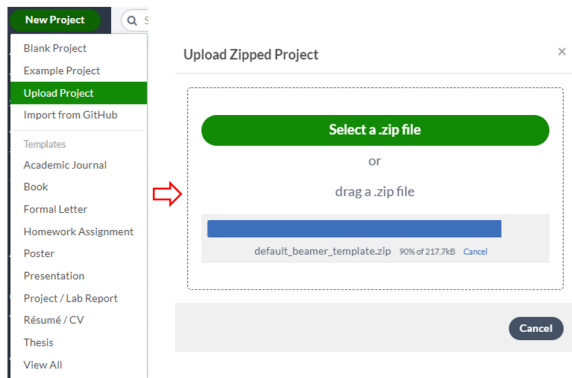


Figure 17: Uploading our default beamer template.

```
8 % Title page details
9 \title {Default Beamer Template}
10 \subtitle{\LaTeX{} 101}
11 \author{Jane Doe}
12 \institute{UC Davis GradPathways}
13 \date{\today}
14
15 % Image Logo
16 % \logo{\includegraphics[width=2.5cm]{DavisLogoV3.png}}
17 \titlegraphic{\includegraphics[width=2.5cm]{DavisLogoV3.png}}
18
19 \begin{document}
20
21 \begin{frame}
22   % Print the title page as the first slide
23   \titlepage
24 \end{frame}
```

Default Beamer Template  
L<sup>A</sup>T<sub>E</sub>X 101

Jane Doe

UC Davis GradPathways

March 13, 2022



Navigation icons: back, forward, search, etc.

Figure 18: Title slide for the default beamer template.



```
26 \label{outline}  
27 \begin{frame}{outline}  
28   \tableofcontents % shows sections + subsections  
29 \end{frame}
```

## Outline

### General $\LaTeX$ Environments

- Unordered Lists
- Ordered Lists
- Descriptions
- Tables
- Figures
- Footnotes

### Beamer-specific Environments

- Columns
- Blocks
- Hyperlinks and Buttons

Navigation icons: back, forward, search, etc.

Figure 19: Using `\tableofcontents` in beamer.

```
43 - \begin{frame}{Ordered Lists}{Itemize environment (different shapes)}
44   \setbeamertemplate{itemize items}[circle]
45   \begin{itemize}
46     \item First item
47     \item Second item
48     \item Third item
49   \end{itemize}
50
51   \setbeamertemplate{itemize items}[square]
52 - \begin{itemize}
53     \item First item
54     \item Second item
55     \item Third item
56   \end{itemize}
57
58   \setbeamertemplate{itemize items}[ball]
59 - \begin{itemize}
60     \item First item
61     \item Second item
62     \item Third item
63   \end{itemize}
64
65   \setbeamertemplate{itemize items}[default] % reset
66
67 \end{frame}
```

### Ordered Lists

Itemize environment (different shapes)

- First item
- Second item
- Third item
- First item
- Second item
- Third item
- First item
- Second item
- Third item

Figure 20: Changing `\itemize` markers in beamer.

```
79 - \begin{frame}[Ordered Lists]{Enumerate environment (different shapes)}
80   \setbeamertemplate{enumerate items}[circle]
81 - \begin{enumerate}
82   \item First item
83   \item Second item
84   \item Third item
85 \end{enumerate}
86
87 \setbeamertemplate{enumerate items}[square]
88 - \begin{enumerate}
89   \item First item
90   \item Second item
91   \item Third item
92 \end{enumerate}
93
94 \setbeamertemplate{enumerate items}[ball]
95 - \begin{enumerate}
96   \item First item
97   \item Second item
98   \item Third item
99 \end{enumerate}
100
101 \setbeamertemplate{enumerate items}[default] % reset
102
103 \end{frame}
```

### Ordered Lists

Enumerate environment (different shapes)

- ① First item
  - ② Second item
  - ③ Third item
- 
- 1 First item
  - 2 Second item
  - 3 Third item
- 
- ① First item
  - ② Second item
  - ③ Third item

Navigation icons: back, forward, search, etc.

Figure 21: Changing `\enumerate` markers in beamer.

## Columns

columns, column environment

```
157 - \begin{frame}[Columns]{\texttt{columns}, \texttt{column} environment}
158 - \begin{columns}
159 -   \begin{column}[0.5\textwidth] % first column
160 -     \tiny{\lipsum[1-1]}
161 -   \end{column}
162 -
163 -   \begin{column}[0.5\textwidth] % second column
164 -     \includegraphics[width=0.9\columnwidth]{DavisLogov3.png}
165 -   \end{column}
166 - \end{columns}
167 - \end{frame}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.



Navigation icons: back, forward, search, etc.

Figure 22: Creating columns in beamer.

## Blocks

### Generic blocks

```
171 \label{blocks}
172 \begin{frame}{Blocks}{Generic blocks}
173
174 \begin{block}{Block 1}
175   This is a simple block in beamer.
176 \end{block}
177
178 \begin{alertblock}{Block 2}
179   This is an alert block in beamer.
180 \end{alertblock}
181
182 \begin{exampleblock}{Block 3}
183   This is an example block in beamer.
184 \end{exampleblock}
185
186 \end{frame}
```

#### Block 1

This is a simple block in beamer.

#### Block 2

This is an alert block in beamer.

#### Block 3

This is an example block in beamer.

Figure 23: Creating blocks in beamer.

## Blocks

Math blocks

```
189 - \begin{frame}[Blocks]{Math blocks}
190
191 - \begin{theorem}
192   It's in \LaTeX{} so it must be true $ a^2 + b^2 = c^2 $.
193 \end{theorem}
194 - \begin{corollary}
195   a = b
196 \end{corollary}
197 - \begin{proof}
198   a + b = b + c
199 \end{proof}
200
201 \end{frame}
```

### Theorem

*It's in  $\LaTeX$  so it must be true  $a^2 + b^2 = c^2$ .*

### Corollary

$a = b$

### Proof.

$a + b = b + c$

□

◀ ▶ ↻ 🔍

Figure 24: Creating math blocks in beamer.

## Hyperlinks and Buttons

```
205 = \begin{frame}{Hyperlinks and Buttons}
206
207   \hyperlink{Blocks}{Click here to return to 'Blocks'}
208
209   \hyperlink{Outline}{\beamerbutton{Click here to return to 'Outline'}}
210
211 \end{frame}
```

Click here to return to 'Blocks'

Click here to return to 'Outline'

◀ ▶ ↺ ↻ 🔍

Figure 25: Creating hyperlinks/buttons in beamer.

- ▶ Lessons 1-12 from `learnlatex.org`
- ▶ Today: Templates (Resume/CV, Beamer)



