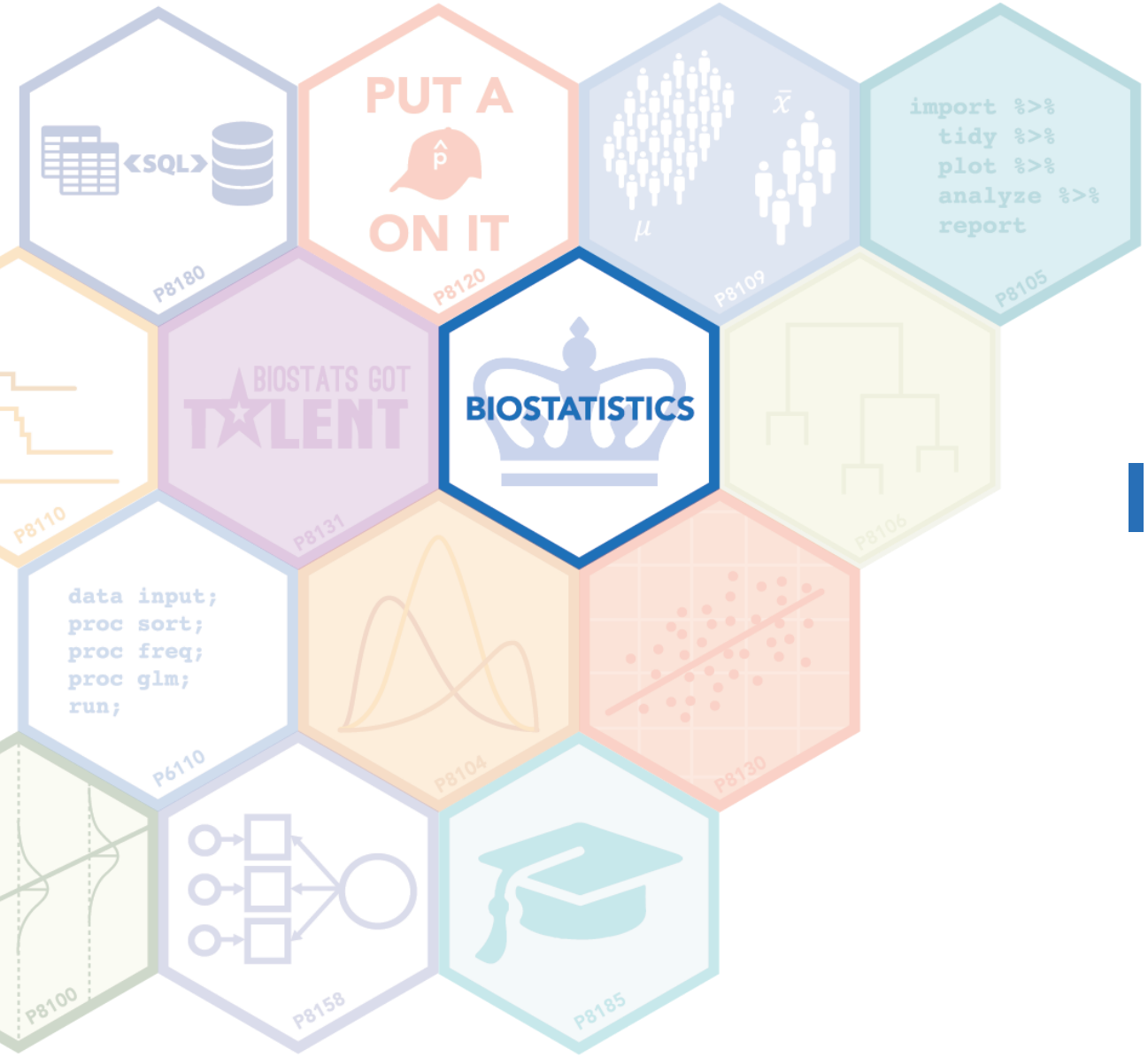


Introduction to Beamer Presentation

Ruiyang Li

Columbia Biostatistics Computing Club

4/13/2022

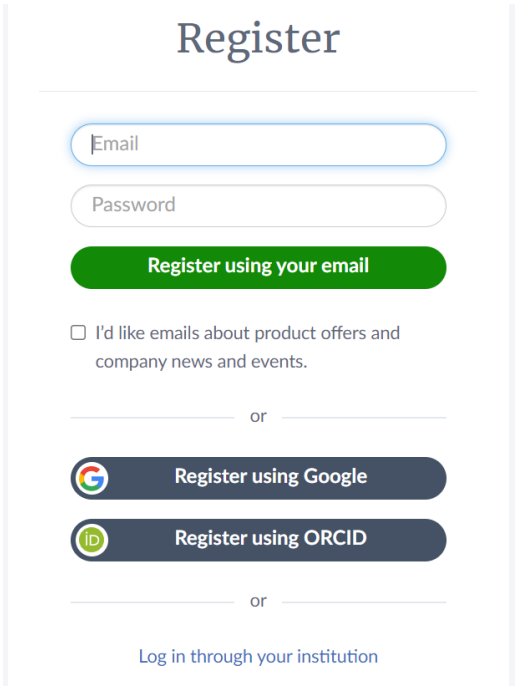
Outline

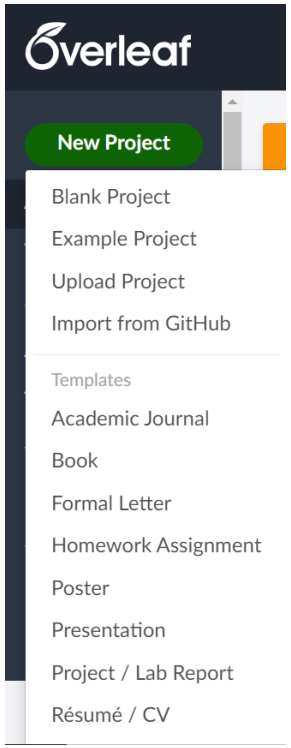
- About overleaf
- Beamer slides in overleaf
  - Title page
  - Table of contents
  - Adding text
  - Adding math expression
  - Adding pictures
  - Adding tables

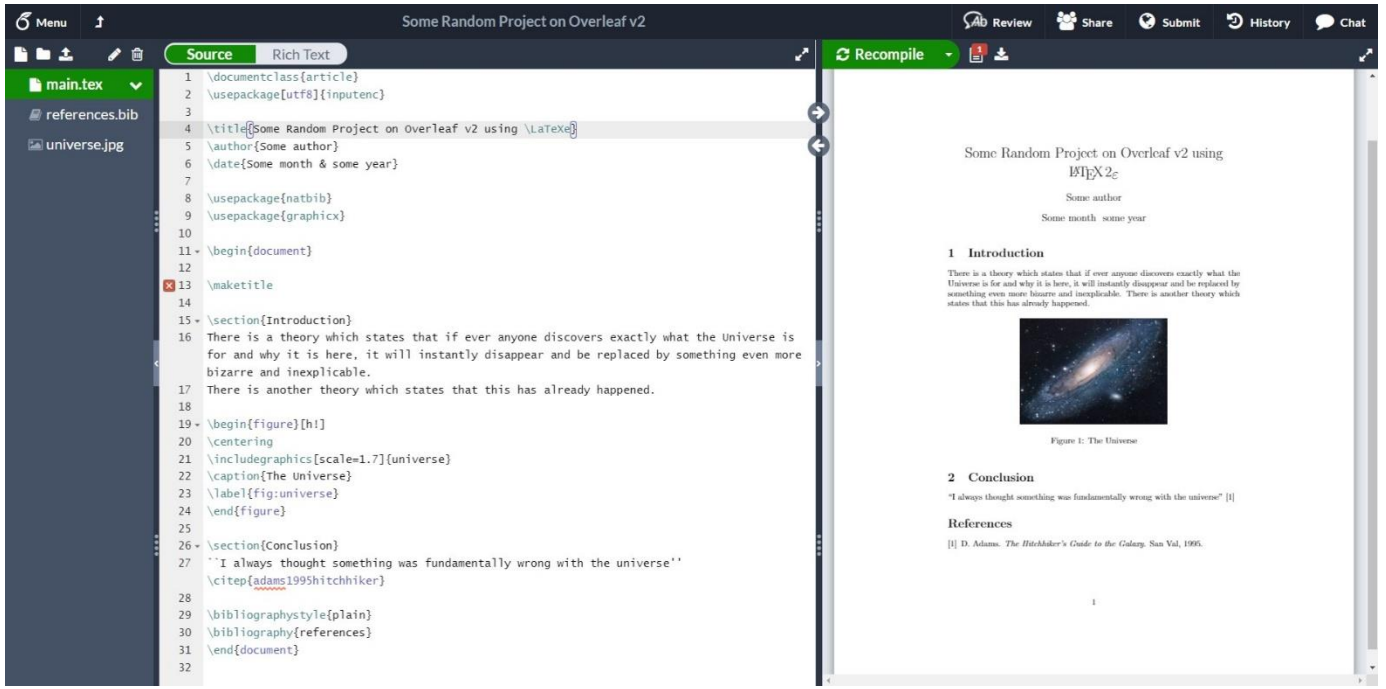
OVERLEAF

Overleaf

- LaTeX
  - a high quality typesetting system that facilitates the production of well-formatted document
- Overleaf
  - a collaborative cloud-based LaTeX editor used for writing, editing and publishing scientific documents







https://en.wikipedia.org/wiki/File:Overleaf_v2_editing_page.jpg

Useful links

- Documentation:
  - https://www.overleaf.com/learn

- Beamer Presentations Tutorial:
  - https://www.overleaf.com/learn/latex/Beamer
  - https://www.overleaf.com/learn/latex/Beamer_Presentations%3A_A_Tutorial_for_Beginners_(Part_1)%E2%80%94Getting_Started

- Templates:
  - https://www.overleaf.com/gallery/tagged/presentation

TIME TO MAKE SLIDES!

Title page

Menu | An example of the beamer package (Copy) | Review | Share | Submit | History | Chat

Source | Rich Text | Recompile

main.tex

overleaf-logo.pdf

```
1  \documentclass{beamer}
2  \usetheme{Madrid}
3  \usecolortheme{default}
4  %---------------------------------------------------------
5  \title[About Beamer] %optional
6  {Introduction to Beamer Presentation}
7
8  \subtitle{Part 1: The Basics}
9
10 \author[R. Li] % (optional)
11 {Ruiyang Li \inst{1} \and Name2 \inst{2}}
12
13 \institute[Columbia University] % (optional)
14 {
15   \inst{1}%
16   Department of Biostatistics\\
17   Columbia University
18   \and
19   \inst{2}%
20   Info
21 }
22
23 \date[Computing Club 2022] % (optional)
24 {Computing Club, April 2022}
25
26 \logo{\includegraphics[height=1cm]{overleaf-logo}}
27 %---------------------------------------------------------
28 \begin{document}
29 \frame{\titlepage}
30 %ADD SLIDES IN HERE
31 \end{document}
```

Beamer slideshow

Define info in title page

Creates title page

What's next

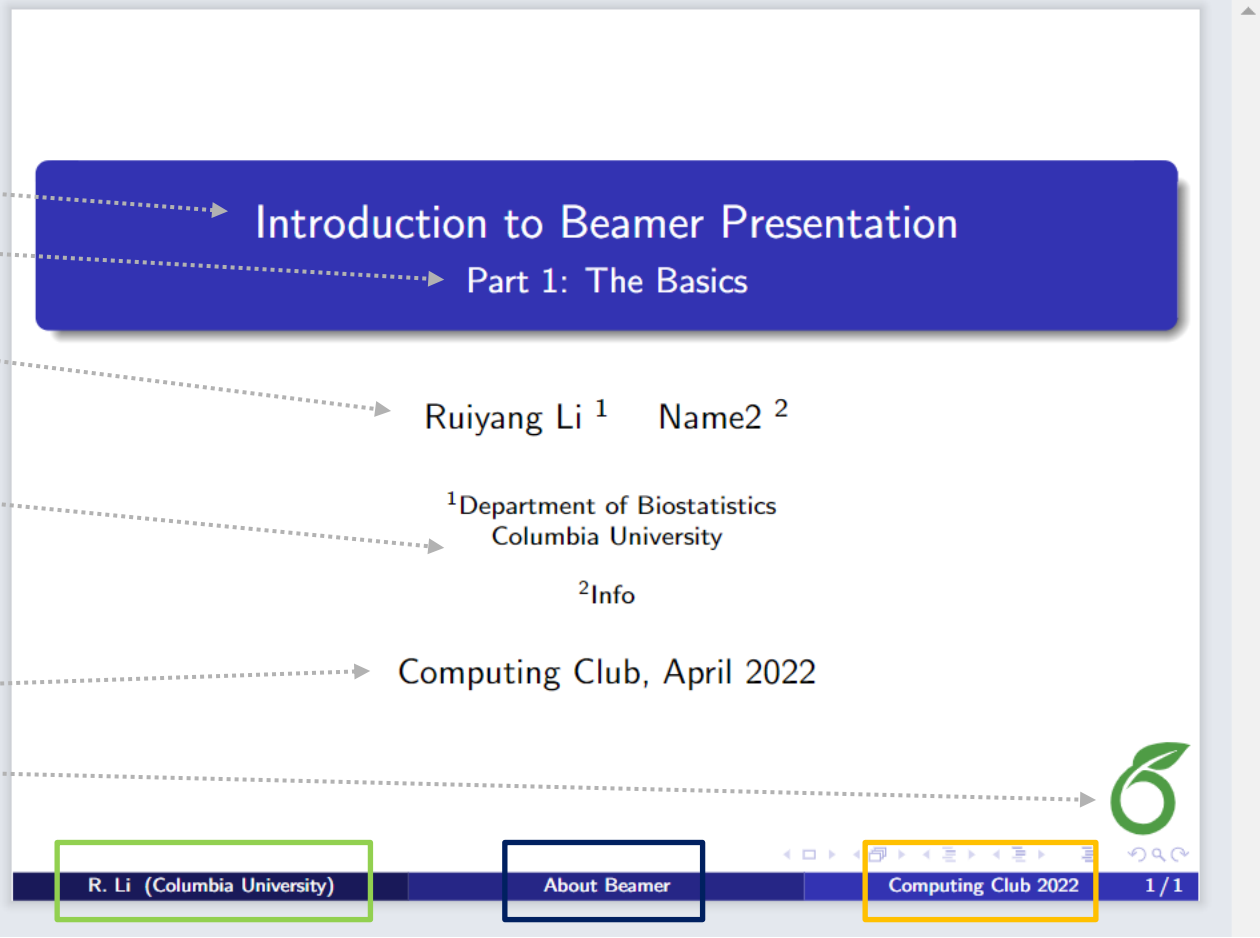
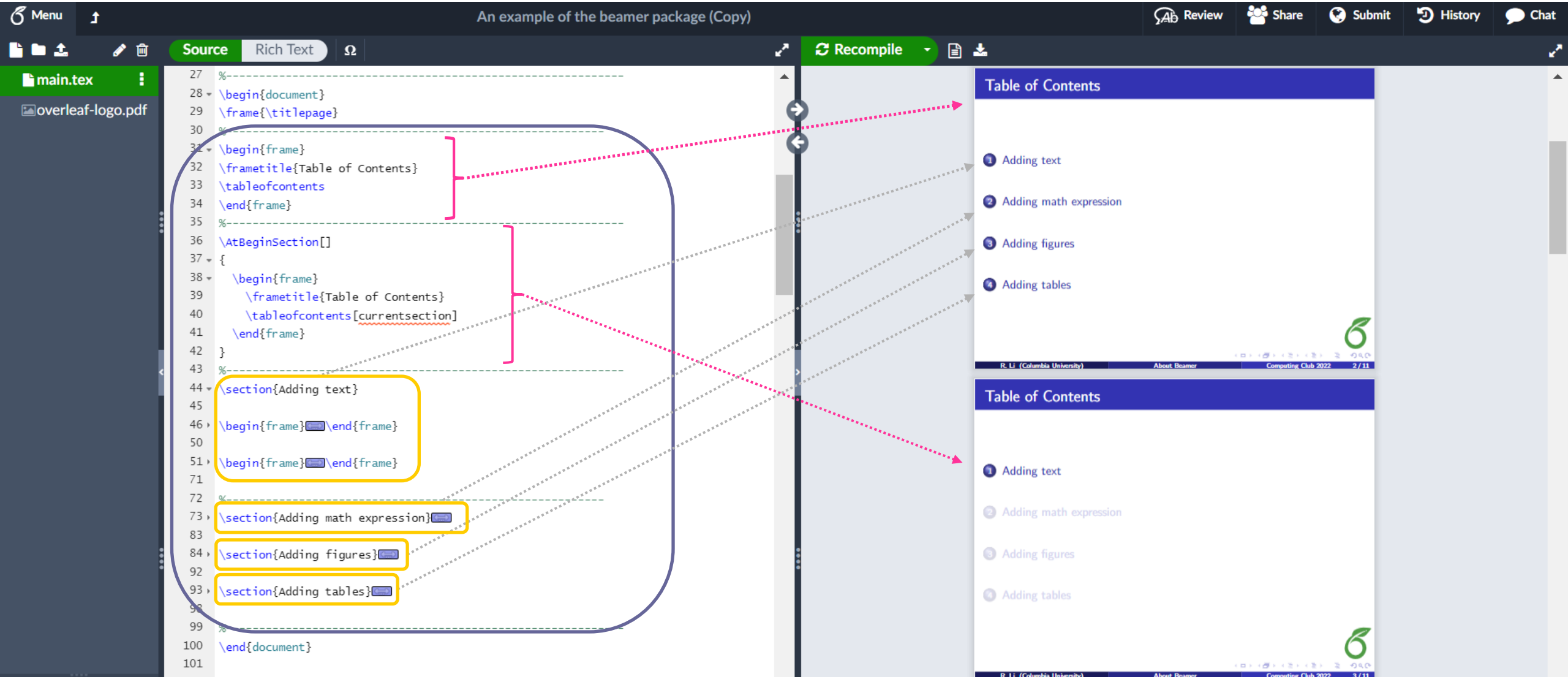


Table of contents



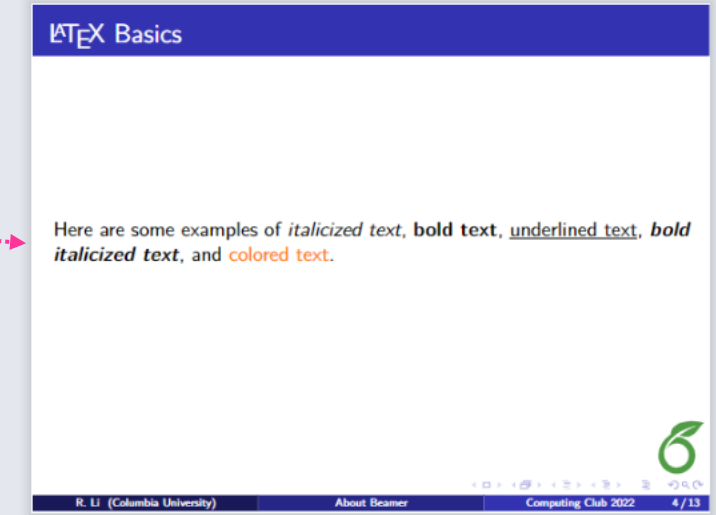
Adding text

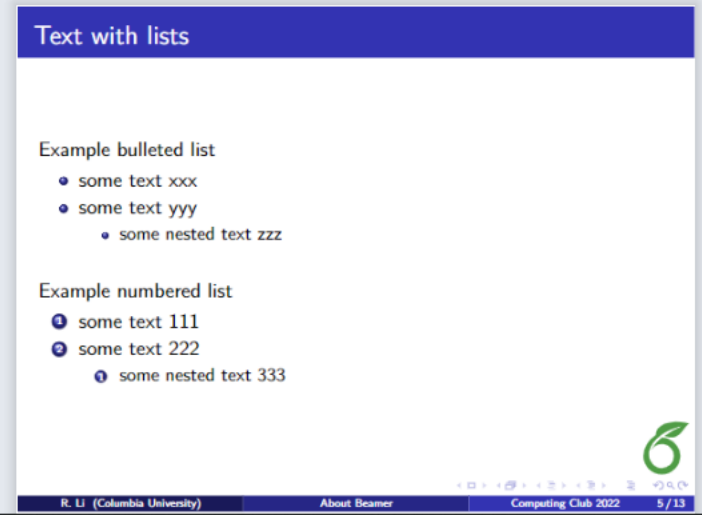
Menu | An example of the beamer package (Copy) | Review | Share | Submit | History | Chat

Source | Rich Text | Recompile

fig.png
fig2.png
fig3.png
main.tex
overleaf-logo.pdf

```
45  %---------------------------------------------------------
46  \section{Adding text}
47
48  \begin{frame}
49  \frametitle{\LaTeX \ Basics}
50  Here are some examples of \emph{italicized text}, \textbf{bold text},
    \underline{underlined text}, \textbf{\emph{bold italicized text}}, and
    \textcolor{orange}{colored text}.
51  \end{frame}
52
53  \begin{frame}
54  \frametitle{Text with lists}
55  Example bulleted list
56  \begin{itemize}
57      \item some text xxx
58      \item some text yyy
59      \begin{itemize}
60          \item some nested text zzz
61      \end{itemize}
62  \end{itemize}
63  \vspace{5mm}
64  Example numbered list
65  \begin{enumerate}
66      \item some text 111
67      \item some text 222
68      \begin{enumerate}
69          \item some nested text 333
70      \end{enumerate}
71  \end{enumerate}
72  \end{frame}
73
74
75
76
```





File outline

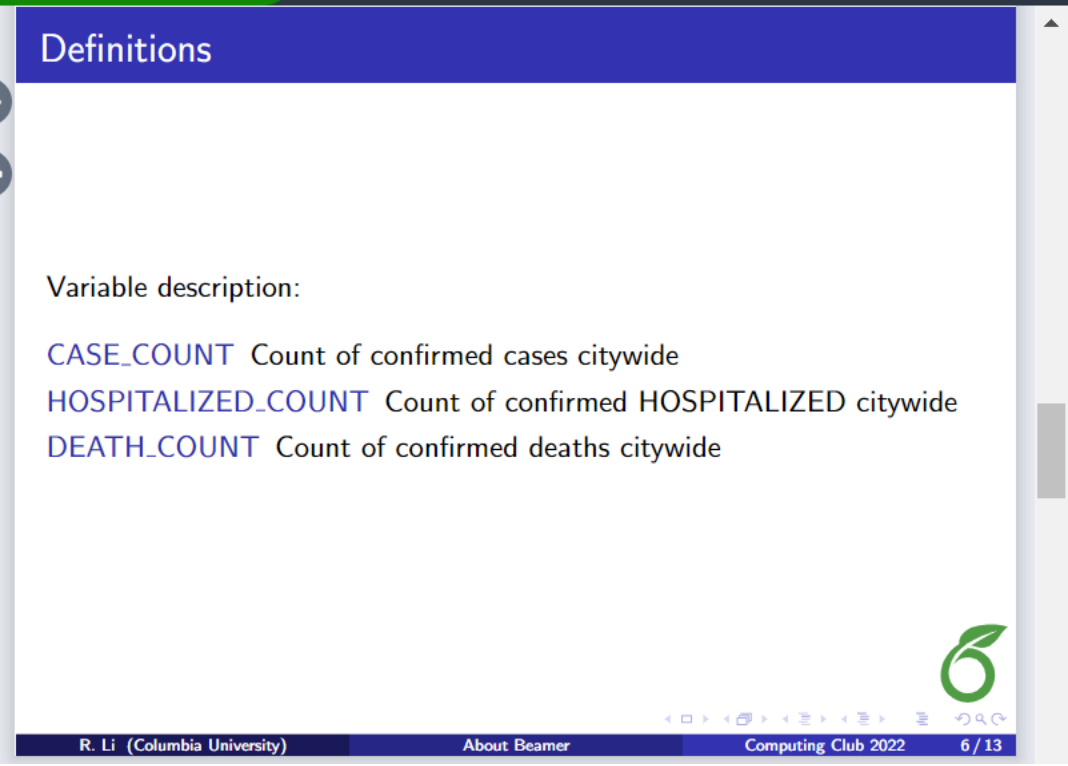
Adding text (cont'd)

Menu | An example of the beamer package (Copy) | Review | Share | Submit | History | Chat

Source | Rich Text | Ω | Recompile

fig.png
fig2.png
fig3.png
main.tex
overleaf-logo.pdf

```
71
72 \begin{frame}
73 \frametitle{Definitions}
74 Variable description:
75 \vspace{3mm}
76 \begin{description}
77 \item[CASE\_COUNT] Count of confirmed cases citywide
78 \item[HOSPITALIZED\_COUNT] Count of confirmed HOSPITALIZED
   citywide
79 \item[DEATH\_COUNT] Count of confirmed deaths citywide
80 \end{description}
81 \end{frame}
82
83
84
85
86
87
88
89
```



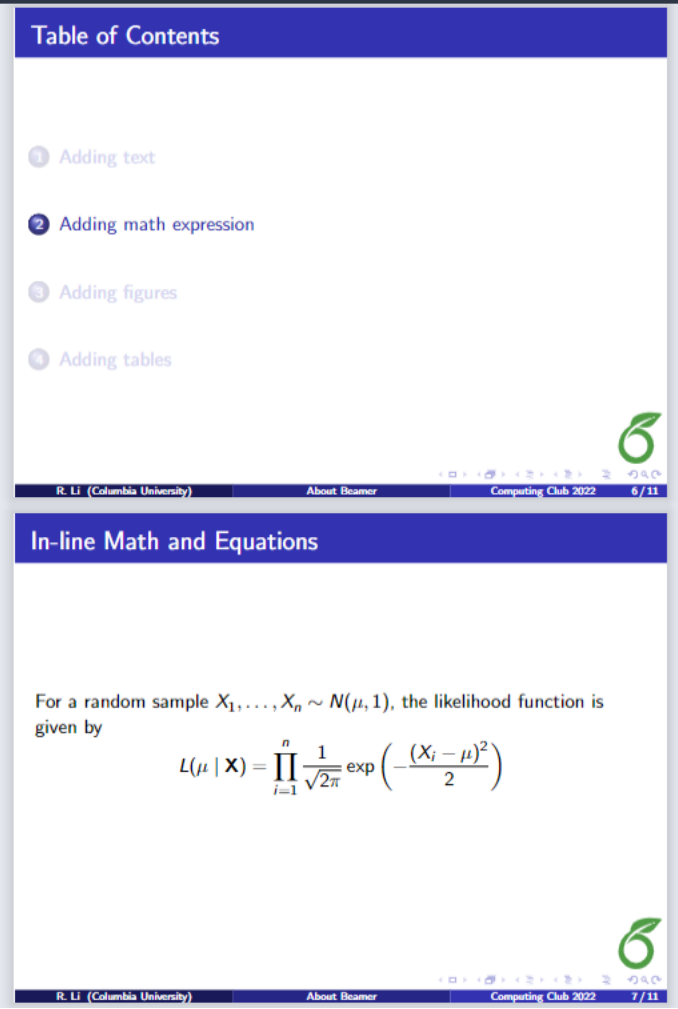
Adding math expression

Menu | An example of the beamer package (Copy) | Review | Share | Submit | History | Chat

Source | Rich Text | Recompile

main.tex
overleaf-logo.pdf

```
71
72  %------------------------------------------------------
73  \section{Adding math expression}
74
75  \begin{frame}
76  \frametitle{In-line Math and Equations}
77  For a random sample $X_1, \ldots, X_n \sim N(\mu, 1)$, the likelihood function is
    given by
78  \[
79  L(\mu \mid \mathbf{X})
80  = \prod_{i = 1}^n \frac{1}{\sqrt{2 \pi}} \exp \left( -\frac{(X_i - \mu)^2}{2}
    \right)
81  \]
82  \end{frame}
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
```



Adding figures

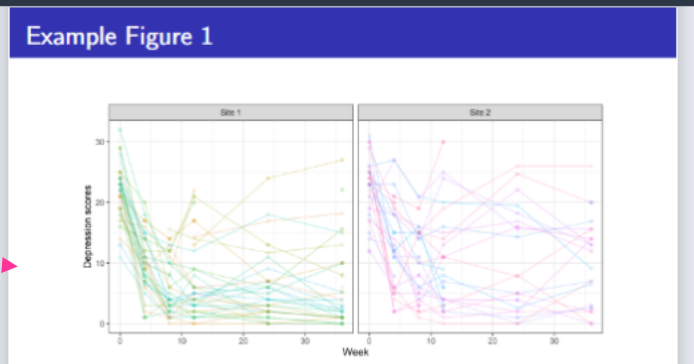
Menu | An example of the beamer package (Copy) | Review | Share | Submit | History | Chat

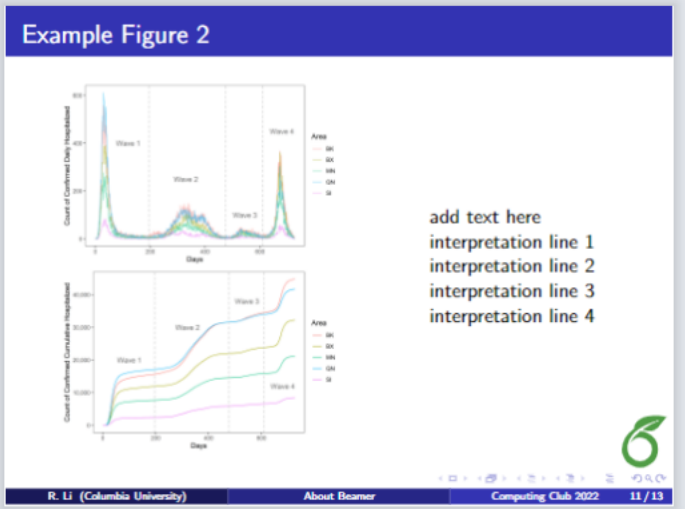
Source | Rich Text | Recompile

- fig.png
- fig2.png
- fig3.png
- main.tex
- overleaf-logo.pdf

File outline

```
109 %---------------------------------------------------------
110 \section{Adding figures}
111 \begin{frame}
112 \frametitle{Example Figure 1}
113 \begin{figure}
114 \includegraphics[scale=0.5]{fig.png}
115 \caption{Spaghetti plot by site}
116 \end{figure}
117 add text here
118 \end{frame}
119
120 \begin{frame}
121 \frametitle{Example Figure 2}
122 \begin{columns}
123 \column{0.5\textwidth}
124 \includegraphics[scale=0.35]{fig2.png} \\
125 \includegraphics[scale=0.35]{fig3.png}
126 \column{0.3\textwidth}
127 add text here \\
128 interpretation line 1 \\
129 interpretation line 2 \\
130 interpretation line 3 \\
131 interpretation line 4 \\
132 \end{columns}
133 \end{frame}
134
135
136
137
138
```





Adding tables

Menu | An example of the beamer package (Copy) | Review | Share | Submit | History | Chat

Source | Rich Text | Recompile

fig.png
fig2.png
fig3.png
main.tex
overleaf-logo.pdf

File outline

```
135 %-------------------------------------------------------
136 \section{Adding tables}
137
138 \begin{frame}{Example Table}
139 \begin{table}
140 \caption{Descriptive Statistics}
141 \begin{tabular}{l c c c}
142 \hline
143 & Group 1, N = 36 & Group 2, N = 26 & P-value \\
144 \hline
145 Age & 41 (7) & 42 (7) & 0.4 \\
146 Gender &&& 0.008 \\
147 \ \ Male & 26 (72\%) & 10 (38\%) & \\
148 \ \ Female & 10 (28\%) & 16 (62\%) & \\
149 \hline
150 \footnotetext[1]{n (\%); Mean (Standard Deviation)}
151 \end{tabular}
152 \end{table}
153 \end{frame}
154
155
156 %-------------------------------------------------------
157 \end{document}
158
159
160
```

4 Adding tables

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Example Table

Table: Descriptive Statistics

	Group 1, N = 36	Group 2, N = 26	P-value
Age	41 (7)	42 (7)	0.4
Gender			0.008
Male	26 (72%)	10 (38%)	
Female	10 (28%)	16 (62%)	

[1] n (%); Mean (Standard Deviation)

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Basics that we've covered

- Title page
- Table of contents
- Adding
  - Text
  - Math
  - Figures
  - Tables

THANKS FOR LISTENING!