

spBeamer Document

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3 Thanks to, I learn a lot from them!

How to use it

Subsection 1

Preamble and Info Command

Preamble

In the preamble, please provide the following details to complete your Beamer presentation setup:

```
\documentclass[
    style = 2, % default o
    bibstyle = apa, % if you need apa
    lang = cn, % if you write in Chinese
]{spBeamer}

\spAuthor{Your name}
\spAuthorInShort{Your name in short}
\spTitle{This Beamer's title}
\spSubtitle{This Beamer's subtitle if you need}
\spAffiliation{Your affiliation}
\spAffiliationInShort{Your affiliation in short if you need}
\spDate{default '\today'}
```

Some clarifications

Q: What is the difference between `\spAuthor` and `\spAuthorInShort`?
Similarly, what distinguishes `\spAffiliation` from `\spAffiliationInShort`?

A: "InShort" will be used in footline.

Subsection 2

The options

Options

The value in the right of = is default value.

```
lang = en % english mode default
style = 0 % DarkRed style default
bibstyle = ieee & gb7714-2015 % when en and cn
ref = ref % if your .bib file has other name, change it
colorlinks = true
nocite = true
```


Some example

Almost every feature in `spArticle` is also supported in `spBeamer`.

Subsection 1

Math

math

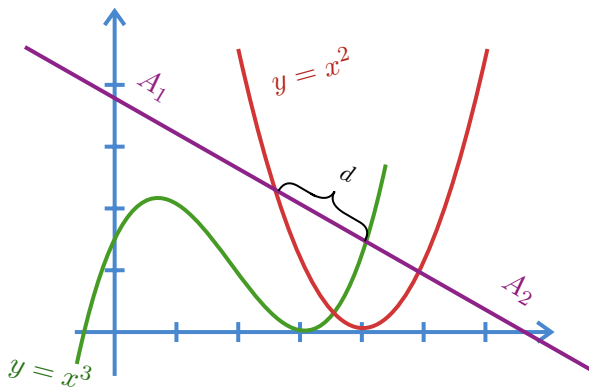
$$\langle x_f, t_f | x_i, t_i \rangle = \int \mathcal{D}[x(t)] \exp\left(\frac{i}{\hbar} S[x(t)]\right), \quad (1)$$

$$\gamma_{\text{Berry}} = i \int_C \langle \psi(\lambda) | \nabla_\lambda \psi(\lambda) \rangle \cdot d\lambda, \quad (2)$$

Subsection 2

tikz

normal tikz



Subsection 3

`tikz-cd`

tikz-cd

$$\begin{array}{ccccc}
 & & \pi_1(U_1) & & \\
 & \nearrow i_1 & & \searrow j_1 & \\
 \pi_1(U_1 \cap U_2) & & & & \pi_1(X) \\
 & \searrow i_2 & & \nearrow j_2 & \\
 & & \pi_1(U_1) *_{\pi_1(U_1 \cap U_2)} \pi_1(U_2) & \xrightarrow{\cong} & \pi_1(X)
 \end{array}$$

The diagram illustrates the relationship between the fundamental groups of spaces U_1 , U_2 , their intersection $U_1 \cap U_2$, and a larger space X . The nodes are arranged as follows:

- Top-left: $\pi_1(U_1 \cap U_2)$
- Top-middle: $\pi_1(U_1)$
- Bottom-middle: $\pi_1(U_1) *_{\pi_1(U_1 \cap U_2)} \pi_1(U_2)$
- Bottom-right: $\pi_1(X)$

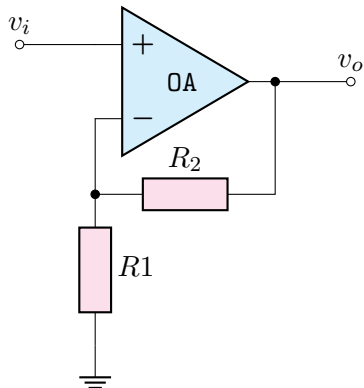
The arrows represent the following maps:

- $i_1: \pi_1(U_1 \cap U_2) \rightarrow \pi_1(U_1)$ (top-left to top-middle)
- $i_2: \pi_1(U_1 \cap U_2) \rightarrow \pi_1(U_2)$ (top-left to bottom-middle)
- $j_1: \pi_1(U_1) \rightarrow \pi_1(X)$ (top-middle to bottom-right, curved)
- $j_2: \pi_1(U_2) \rightarrow \pi_1(X)$ (bottom-middle to bottom-right, curved)
- An inclusion map from $\pi_1(U_1)$ to $\pi_1(U_1) *_{\pi_1(U_1 \cap U_2)} \pi_1(U_2)$ (top-middle to bottom-middle)
- An inclusion map from $\pi_1(U_2)$ to $\pi_1(U_1) *_{\pi_1(U_1 \cap U_2)} \pi_1(U_2)$ (bottom-middle to top-middle)
- An isomorphism map $\xrightarrow{\cong}$ from $\pi_1(U_1) *_{\pi_1(U_1 \cap U_2)} \pi_1(U_2)$ to $\pi_1(X)$ (bottom-middle to bottom-right)

Subsection 4

`circuitikz`

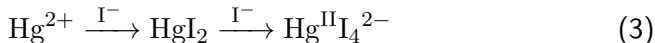
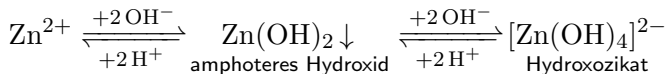
circuitikz

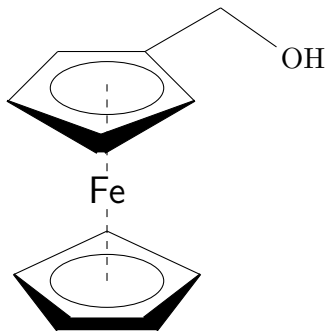


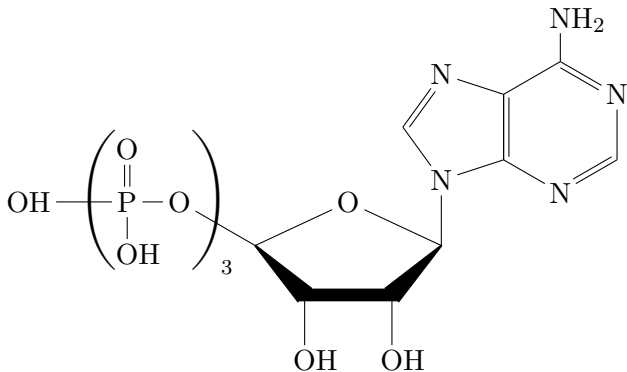
Subsection 5

chem

mhchem and chemfig







Thanks to, I learn a lot from them!

Special thanks to the Dead Physicists Society for their template, which served as the basis for this revision. I greatly appreciate their contribution!"

References

- [1] L. Wen-Wei, “AlJabr-1,”
<https://github.com/wenweili/AlJabr-1>.
- [2] M. A. Redaelli, S. Lindner, S. Erhardt, and R. Giannetti, “Circuitikz,”
<https://github.com/circuitikz/circuitikz>.
- [3] T. Wasserman, “tikzcd: Commutative diagrams with TikZ,”
<https://ctan.math.washington.edu/tex-archive/graphics/pgf/contrib/tikz-cd/tikz-cd-doc.pdf>.
- [4] C. Tellechea, “chemfig: A TeX package for drawing molecules,”
<https://ctan.org/pkg/chemfig>.
- [5] N. Alves, “Dead physicists society presentation template,”
<https://www.overleaf.com/latex/templates/dead-physicists-society-presentation-template/zqmtrkmgxzqz>.

The End