LaTeX 프레젠테이션

권현우

2022년 2월 9일

목록

좋은 프레젠테이션의 조건

- 한 슬라이드에 너무 많은 내용을 넣지 말자.
- 상세한 서지를 밝히거나 참조 위치를 번호로 표시하는 것은 자제하자.
- 간결하면서도 적절한 자극

목록

기본 사용법

```
\documentclass{beamer}
\usepackage{kotex,setspace}
\setstretch{1.33}

\everydisplay\expandafter{\the\everydisplay\def\baselinestretch{1.2}\selectfont}

\title[짧은 제목]{긴 제목}
\author[짧은 이름]{긴 이름}
\institute[짧은 소속]{긴 소속}
\date[날짜]{날짜}

\begin{document}
\maketitle
\end{document}
```

기본 사용법

```
\begin{frame}{제목}
내용
\end{frame}
```

본문 세로 정렬

```
\documentclass[t]{beamer} %t, c, b (default: c)
\begin{frame}[t]{제목} %t,c,b (default:c)
내용
\end{frame}
```

본문 글씨 크기

```
\documentclass[9pt]{beamer} %8, 9, 10, 12, 14, 17, 20 (default 11pt)
```

슬라이드 한 장당 글씨 설정은

```
\tiny \scriptsize \footnotesize \small \normalsize \large \Large \LARGE
↪  \huge \Huge \HUGE
```

슬라이드 크기

```
\documentclass[aspectratio={169}]{beamer} %1610, 149, 54, 43, 32 (default:43)
```

그 외 옵션들

```
\documentclass[handout]{beamer} %beamer, trans, handout

\documentclass{article}
\usepackage{beamerarticle}

\documentclass{beamerswitch}
\mode<presentation>{%
\usepackage{metropolis}
}
```

- trans: 항목을 순차적으로 보여주는 기능을 무력화시키는 버전
- handout: 유인물 친화버전. https://github.com/gdiepen/latexbeamer-handoutWithNotes

```
\begin{frame}<handout:0>
```

handout 설정

```
> tex handoutWithNotes.ins
```

만들어진 sty파일을 texmf-dist>tex>latex>handoutWithNotes에 복사

관리자모드로 다음을 실행 (또는 sudo)

```
> mktexlsr
```

handout 설정 (1.tex)

```
\documentclass[handout]{beamer}

\usepackage{handoutWithNotes}
\pgfpagesuselayout{2 on 1 with notes}
...
```

테마

`\usetheme`

`\usecolortheme`

`https://www.hartwork.org/beamer-theme-matrix/`

Theme	Antibes, Bergen, Berkeley, Berlin, Copenhagen, Darmstadt, Dresden, Frankfurt, ...
ColorTheme	albatross, crane, beetle, dove, fly, seagull, ...
InnerColor	lily, orchid, rose, ...
OuterColor	whale, seahorse, dolphin, ...

목록

본문: itemize, enumerate, description

```
\begin{itemize}
\item
\end{itemize}

\begin{enumerate}
\item
\end{enumerate}

\begin{description}
\item[항목] 내용
\end{description}
```

본문: itemize, enumerate, description (2.tex)

- Elias Stein
- Charles Fefferman
- Terence Tao

```
\begin{itemize}
\item Elias Stein
\item Charles Fefferman
\item Terence Tao
\end{itemize}
```

본문: itemize, enumerate, description (2.tex)

1. Elias Stein
2. Charles Fefferman
3. Terence Tao

```
\begin{enumerate}
\item Elias Stein
\item Charles Fefferman
\item Terence Tao
\end{enumerate}
```

본문: itemize, enumerate, description (2.tex)

Theme Antibes, Bergen, Berkeley, Berlin, Copenhagen, Darmstadt, Dresden, Frankfurt, ...

ColorTheme albatross, crane, beetle, dove, fly, seagull, ...

InnerColor lily, orchid, rose, ...

OuterColor whale, seahorse, dolphin, ...

```
\begin{description}
\item[Theme] Antibes, Bergen, Berkeley, Berlin, Copenhagen, Darmstadt, Dresden,
Frankfurt, ...
\item[ColorTheme] albatross, crane, beetle, dove, fly, seagull, ...
\item[InnerColor] lily, orchid, rose, ...
\item[OuterColor] whale, seahorse, dolphin, ...
\end{description}
```

본문: overlay

1. Elias Stein

```
\begin{enumerate}
\item<1-2> Elias Stein
\item<3> Charles Fefferman
\item<2-> Terence Tao
\end{enumerate}
```

본문: overlay

1. Elias Stein

3. Terence Tao

```
\begin{enumerate}
\item<1-2> Elias Stein
\item<3> Charles Fefferman
\item<2-> Terence Tao
\end{enumerate}
```

본문: overlay

2. Charles Fefferman
3. Terence Tao

```
\begin{enumerate}
\item<1-2> Elias Stein
\item<3> Charles Fefferman
\item<2-> Terence Tao
\end{enumerate}
```

본문: 또 다른 overlay (3.tex)

```
\begin{frame}[<+->]
\begin{theorem}
$A = B$.
\end{theorem}
\begin{proof}
\begin{itemize}
\item Clearly, $A = C$.
\item As shown earlier,
\item<3-> Thus $A = B$.
\end{itemize}
\end{proof}
\end{frame}
```

본문: pause

```
Below is an important note.
\pause
\begin{block}{Note}
This is a block.
\end{block}
```

Below is an important note.

본문: pause

```
Below is an important note.
\pause
\begin{block}{Note}
This is a block.
\end{block}
```

Below is an important note.

Note

This is a block.

본문: onslide, visiable, only, and uncover (4.tex)

```
\begin{frame}
\onslide<1>{1st slide only}
\uncover<1>{1st slide only}
\onslide+<2>{2nd slide only}
\visible<2>{2nd slide only}
\onslide*<3>{3nd slide only}
\only<3>{3nd slide only}
\end{frame}
```

- 그림을 가릴 때 유용함

본문: block

```
\begin{block}{블록 제목}%block, alertblock, ...
블록 내용
\end{block}
```

블록 제목

블록 내용

본문: block

```
\begin{theorem}
정리
\end{theorem}
```

Theorem

정리

사전에 정의된 환경들

- theorem, corollary, definition, definitions, fact, example, and examples

본문: block

```
\documentclass[notheorem]{beamer}
\usepackage{kotex}

\theoremstyle{definition}
\newtheorem{thm}{정리}
.....


\begin{thm}
테스트
\end{thm}

\begin{beamerboxesrounded}[upper=block head,lower=block body,shadow=true]{Theorem}
$A = B$.
\end{beamerboxesrounded}
```

본문: column

```
\begin{columns}
\begin{column}{0.4\textwidth}
1st column
\end{column}
\begin{column}{0.4\textwidth}
2nd column
\end{column}
\end{columns}
```

목록

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

$$\int_a^b f\,dx$$

추천하는 테마는 뭐가 있나요?

- Madrid, CambridgeUS, MetroPolis, SimplePlus(overleaf)

`https://www.overleaf.com/latex/templates/tagged/presentation`

Test slide

We consider the following problems....

- A problem
- B problem

Block test

My test block.

밑에 있는 네비게이션 바가 보기 싫어요

```
\setbeamertemplate{navigation symbols}{}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

$$\int_a^b f \, dx$$

수식을 논문처럼 못써요?

```
\usefonttheme{professionalfonts}
\usefonttheme[onlymath]{serif}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

$$\int_a^b f \, dx$$

좌우여백좀 바꾸고 싶어요

```
\setbeamersize{text margin left=0.75cm}
\setbeamersize{text margin right=0.75cm}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

정의를 박스로 두르고 싶어요

```
\usecolortheme{orchid}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

박스가 너무 딱딱해요!

```
\useinnertheme[shadow=true]{rounded}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

$$\int_a^b f\,dx$$

동그란 번호는 촌스러워요

```
\useinnertheme[shadow=true]{rounded}
\useinnertheme{rectangles}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

$$\int_a^b f\,dx$$

밑에 발표제목, 내 이름, 소속, 페이지 수 넣고 싶어요

```
\useoutertheme{infolines}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

My test block.

$$\int_a^b f\,dx$$

색깔 바꿀래요!

```
\definecolor{lapis}{cmyk}{1,0.78,0.18,0.04}
\setbeamercolor{structure}{fg=lapis}
\setbeamercolor*{palette primary}{use=structure,fg=white,
bg=structure.fg}
\setbeamercolor*{palette secondary}{use=structure,fg=white,
bg=structure.fg!70!black}
\setbeamercolor*{palette tertiary}{use=structure,fg=white,
bg=structure.fg!15!black}
\setbeamercolor*{palette quaternary}{fg=white,bg=black}
\setbeamercolor*{block body}{bg=lapis!10}
\setbeamercolor*{block title}{fg=white,bg=lapis}
```

Test slide

We consider the following problems....

- A problem
- B problem

1. A problem
2. B problem

Block test

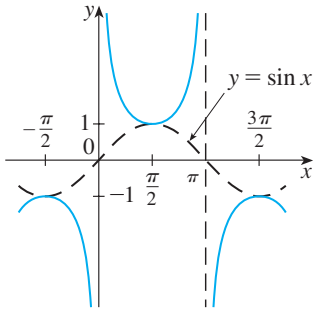
My test block.

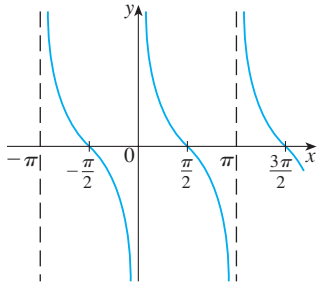
$$\int_a^b f\,dx$$

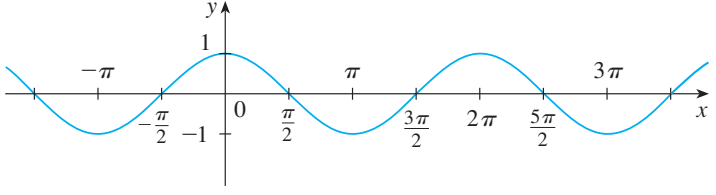
그림을 내가 원하는 위치에 넣고 싶어요

```
\usepackage{tikz}

\newcommand<>{\AbsoluteBox}[2][]{%
  \begin{pgfpicture}
  \pgfusepath{use as bounding box}
  \pgftransformshift{\pgfpointanchor{current page}{south west}}
  \pgftext[base,left,#1]{#2}
  \pgfrememberpicturepositiononpagetrue
  \end{pgfpicture}}
  ...

\AbsoluteBox[x=2mm,y=40mm]{\includegraphics[width=0.4\textwidth]{images/Cosecant}}
\AbsoluteBox[x=20mm,y=0mm]{\includegraphics[width=0.9\textwidth]{images/Cosine}}
\AbsoluteBox[x=70mm,y=30mm]{\includegraphics[width=0.4\textwidth]{images/Cotangent}}
```

Test slide


y
y = sin x
−π/2
1
0
3π/2
x
−1
π/2
π


y
−π
−π/2
0
π/2
π
3π/2
x


y
1
−π
π
3π
0
−π/2
−1
π/2
3π/2
2π
5π/2
x

슬라이드 매번 쪼개기 번거로워요

```
\begin{frame}[allowframebreaks]{제목} 내용 \end{frame}
```

로마자 저거 좀...

아예 없애고 싶으면

```
\setbeamertemplate{frametitle continuation}{}
```

두 번째 슬라이드부터 나오게 하고 싶으면

```
\setbeamertemplate{frametitle continuation}{%
\ifnum\insertcontinuationcount>1
\insertcontinuationcount
\fi}
```

슬라이드에 다른 옵션은 무엇이 있나요?

- fragile
- allowdisplaybreaks

화면전환은 안되나요?

`\transblindshorizontal`	Horizontal blinds pulled away
`\transblindsvertical`	Vertical blinds pulled away
`\transboxin`	Move to center from all sides
`\transboxout`	Move to all sides from center
`\transdissolve`	Slowly dissolve what was shown before
`\transglitter`	Glitter sweeps in specified direction
`\transslipverticalin`	Sweeps two vertical lines in
`\transslipverticalout`	Sweeps two vertical lines out
`\transhorizontalin`	Sweeps two horizontal lines in
`\transhorizontalout`	Sweeps two horizontal lines out
`\transwipe`	Sweeps single line in specified direction
`\transduration {2}`	Show slide specified number of seconds

화면전환은 안되나요?

```
\begin{frame}
\transblindshorizontal
\end{frame}
```

- Adobe Reader와 같이 프레젠테이션에서 지원하는 pdf리더기가 있음

매 절이 바뀔때마다 목차가 나오게 하고 싶어요

```
\AtBeginSection[]
{
\begin{frame}<beamer>{목록} \tableofcontents[currentsection] \end{frame}
}
```

동영상은 못 넣나요?

- Flash가 지원중단되어 사용하기가 어렵습니다.
- 링크로 파일을 연결하는 것이 현실적인 해결책

```
\href{링크 주소}{화면 출력 문구}
```

동영상은 못 넣나요?

- gif 파일이 있는 경우에는 다음과 같이 한다.
  1. https://cloudconvert.com/gif-to-png
  2. `\usepackage{animate}`

```
\animategraphics{frame rate}{파일 베이스네임}{처음}{끝}
```

```
\animategraphics[controls,loop,width=0.4\textwidth]{3}{DancingPeaks-}{1}{20}
```

- 지원하는 리더기가 따로 있다.

굳이 Beamer를 고집해야 할 이유가 있을까?

- Marp
- Reveal.js (`https://revealjs.com/`) / vscode-reveal
  - `https://guillod.org/slides/2019rims/`
- Wiki2Beamer
- MultiMarkDown

시간 문제로 레퍼런스만...

- outer themes
- inner themes
- font themes
- color theme

참고자료: `http://wiki.ktug.org/wiki/wiki.php/KTSConference/2017?action=download&value=ktsconf2017_beamer.pdf`

References

- >texdoc beamer
- >https://github.com/gdiepen/latexbeamer-handoutWithNotes
- 조진환 (2013) 비머를 이용한 동영상 촬영용 강의자료 작성 요령
- 이기황 (2012) Beamer를 이용한 프레젠테이션 문서 작성