

My Beamer L^AT_EX Template

A Demo for the theme

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January 17, 2020



Outline

1. Introduction
2. Background
3. Chinese
4. Code Block
5. Algorithm

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Introduction

- This is just a short example

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- It works with xeLaTeX

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Background

Slides with \LaTeX

Beamer offers a lot of functions to create nice slides using \LaTeX .

The basis

This style uses the following default styles:

- split
- whale
- rounded
- orchid

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中文

- 本主题支持中文。

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- Python

- C++

5. Algorithm

Python

```
# -*- coding: utf-8 -*-
```

```
import torch # root package
```

```
import torch.autograd as autograd # computation graph
```

```
import torch.nn as nn # neural networks
```

```
import torch.nn.functional as F # layers, activations and more
```

```
import torch.optim as optim # optimizers e.g. gradient descent, ADAM, etc.
```

```
from torch import Tensor # tensor node in the computation graph
```

```
from torch.jit import script # hybrid frontend decorator and tracing jit
```

```
from torch.jit import trace
```

C++

```
void DifferentThing(const std::string &s) {  
    std::cout << "DifferentThing " << s << std::endl;  
}  
  
int main (int argc, char *argv[]){  
    if (argc > 2) {  
        std::string param1(argv[1]);  
        std::string param2(argv[2]);  
  
        if (param1 == "function1")  
            std::cout << param2 << std::endl;  
        else if (param1 == "function2")  
            DifferentThing(param2);  
    }  
    return 0;  
}
```

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5. Algorithm

Input: HOSVD($\mathcal{X}, R_1, R_2, \dots, R_N$)

Output: $\mathcal{G}, A_{(1)}, A_{(2)}, \dots, A_{(N)}$

```

1 for  $k = 1$  to  $N$  do
2   |  $A_{(n)} \leftarrow R_n$  left singular matrix of  $X_{(n)}$ 
3 end
4  $\mathcal{G} \leftarrow \mathcal{X} \times A_{(1)}^T \times A_{(2)}^T \dots \times A_{(N)}^T$ 
5 return  $\mathcal{G}, A_{(1)}, A_{(2)}, \dots, A_{(N)}$ 

```

Algorithm 1: HOSVD