Official LaTeX Beamer Template of the Chair for AI Methodology (**AIM**) RWTH Aachen University

Quick Guide

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RWTH AACHEN UNIVERSITY

Introduction

- Please take the time to briefly go over the instructions in this example presentation. In particular, how to cite correctly. Make sure that your slides are overall not too busy $\rightarrow$ tables and figures should not contain too much information and you should not overwhelm listeners with walls of text.
- Use an introductory slide (or introductory slides) to motivate the topic and to raise interest.
- You can show an outline of the talk (table of contents) if you want, but we strongly recommend to place it after the introduction and *not* before.

Blocks

Regular block

This is a plain and simple block.

Example block

This is for examples.

Alert block

Use this one to state important information.

Lists

- Lorem ipsum ...

Lists

- Lorem ipsum ...
- dolor sit amet ...

Lists

- Lorem ipsum ...
- dolor sit amet ...
  - Consequetur amibilisque utero

Lists

- Lorem ipsum ...
- dolor sit amet ...
  - Consequetur amibilisque utero
  - Anhilore deus et arendum

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- Lorem ipsum ...
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⇝ Custom label

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- Lorem ipsum ...
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1. Idiquit et collequt deribur

Lists

- Lorem ipsum ...
- dolor sit amet ...
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  - Anhilore deus et arendum

⇝ Custom label

1. Idiquit et collequt deribur
2. Canum meum id comedid

Citations with biblatex

Good alternative to natbib

Sample citation: **BNPS2019**
Sample citation in parenthesis: (**BNPS2019**)
Sample full citation via `\fullcite`

BNPS2019.

Only use full citations if *really* necessary, otherwise full citations should only be shown at the end of the presentation.

Images

Use macro `\ig{width}{path-to-file}` for a single **centered** image:

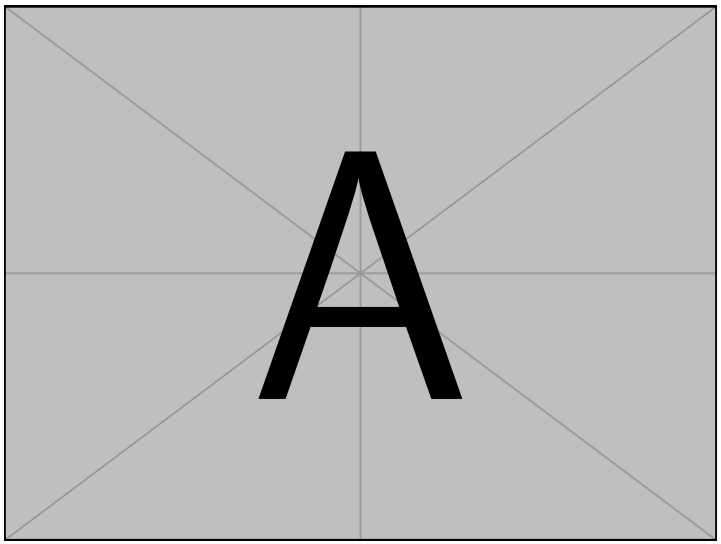
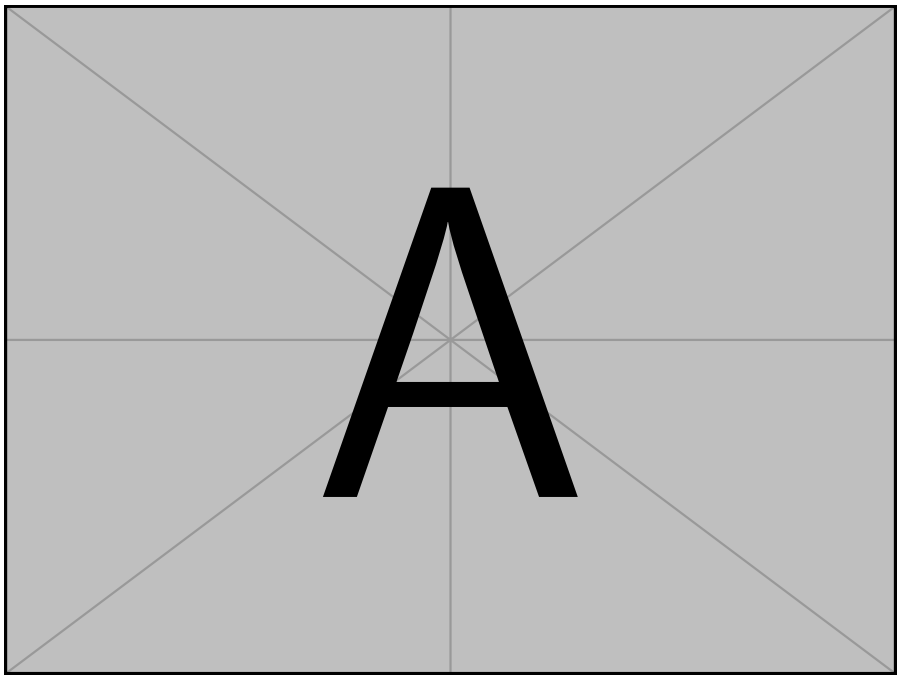


Figure environment

Feel free to use the figure environment. Note that in the captions **(also for tables)** our template *deliberately* omits the label 'Figure:' before the caption (everyone can see that it is a Figure or a Table):



test

Tables

We recommend to take a look at the presentation Small Guide to Making Nice Tables by Markus Püschel. Note that in the captions **(also for figures)** our template *deliberately* omits the label 'Table:' before the caption (everyone can see that it is a Figure or a Table):

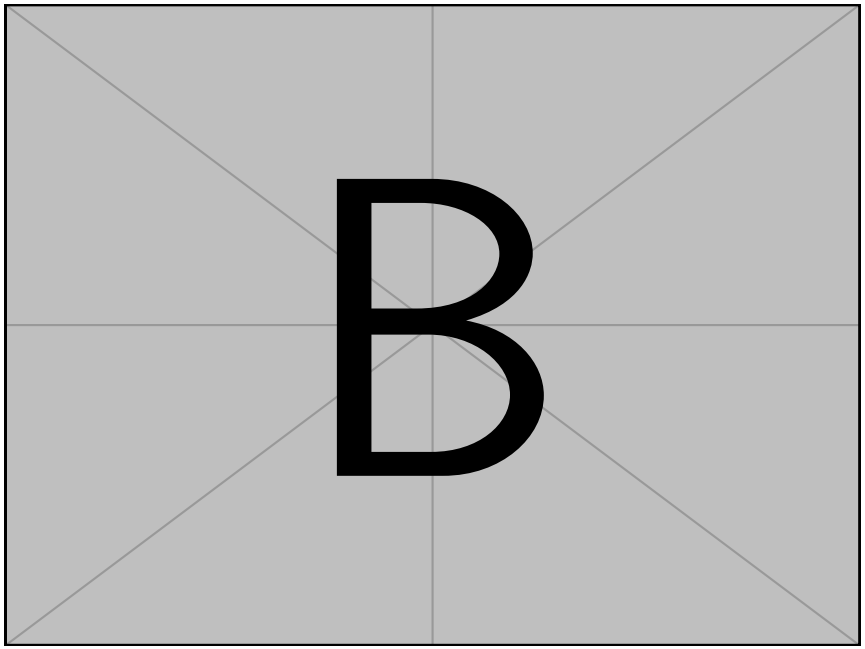
TSP Set	Mutation	RTS*		FR†		PAR10	
		EAX	LKH	EAX	LKH	EAX	LKH
RUE	-	1.26	0.74	0.00	0.00	1.26	0.74
Easy for	simple	1.34	912.78	0.00	0.20	1.34	7 608.11
EAX	sophistic.	0.97	830.80	0.00	0.22	0.97	8 230.61
Easy for	simple	117.97	0.74	0.00	0.00	117.97	0.74
LKH	sophistic.	67.90	0.88	0.00	0.00	67.90	0.88

* RTS: Running time of successful runs, † FR: Failure ratio

Columns

The `\twocol{...}{...}`-macro aligns stuff on top and uses two equally sized columns:

- Lorem ipsum
- dolor sit amet
- consequetur deribilis auret
  - Alamat deceductovo ameritol
  - Consequencias pavit



Math
... looks awesome in LaTeX

Sample formula

Math looks so awesome in LaTeX!

$$\hat{\theta}_{\mathrm{ML}} = T(X_1, \ldots, X_n) = \frac{n}{n-1} \sum_{\substack{i=1 \\ i \neq k}}^{m} \left(X_i^2 - \exp(X_i - X_k)\right)^{k/2}$$

Theorem (BNPS2019)

For every tree with n nodes and maximum degree Δ the expected time until RLS and (1+1) EA find an optimal Δ-edge-coloring is $O(\Delta \ell^2 m \log m)$ where ℓ is the length of the longest path in the tree.

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Pseudo-code

... with `algorithm2e`

Algorithm 1: Sample algorithm (taken from Overleaf docs)

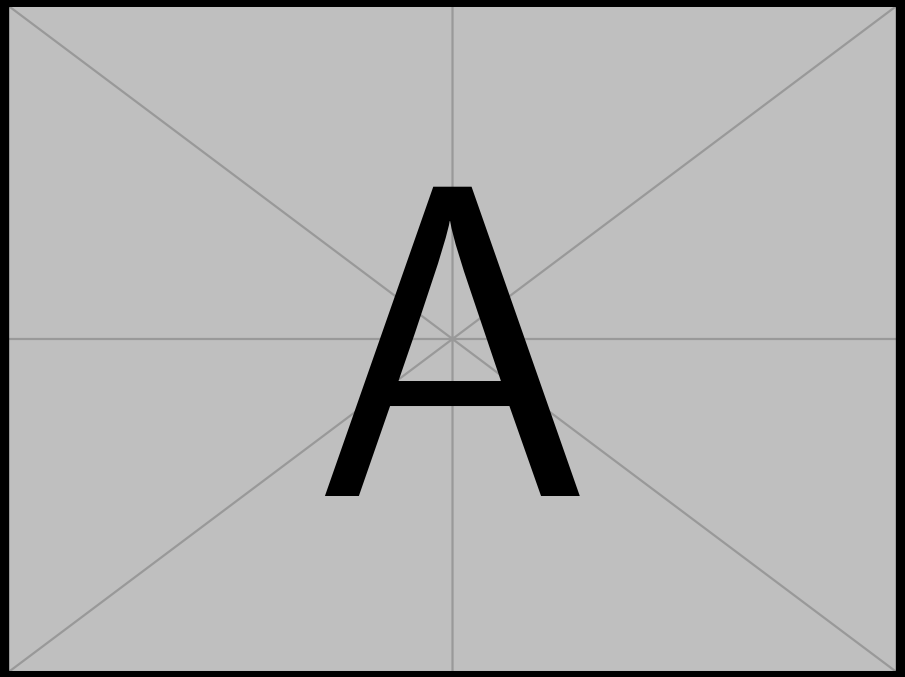
Input: $n \geq 0$
Output: $y = x^n$

```
1 y ← 1, X ← x, N ← n;
2 while N ≠ 0 do
3     if N is even then
4         X ← X × X;
5         N ← N/2;                    // This is a comment!
6     else
7         if N is odd then
8             y ← y × X;
9             N ← N − 1;
```

Useful macros

- Use `\refer{...}` to refer a paper quickly (without the need for a bibfile entry): Bossek et al., 2019
- Use `\hide{...}` to temporarily hide block of code.
- Use `\plainframe{...}` for a visually reduced frame with horizontally and vertically centered message/image (see next slides for examples).
- Use `\plainframe[mycolor]{...}` to change the default background.

Plain slide (focus on certain element)


A

Commenting macros

It is often useful to comment on different things while writing a report, adding ToDos or highlight changed or added parts. To this end the file `includes/commenting.tex` defines some useful macros.

- Use `\todo{...}` to add a ToDo:
  TODO ▶*Do this, do that*◀
- Use `\changed{...}` to indicate changes:
  CHANGED ▶*This text was changed.*◀
- Use `\added{...}` to highlight additions:
  ADDED ▶*This text was added.*◀
- Use author-specific macros, e.g., `\jane{...}` or `\john` for our two sample authors Jane and Joe, to add comments. Feel free to edit `includes/commenting.tex` to add/adapt the author-specific macros.
  Jane ▶*Comment by Jane.*◀
  John ▶*Comment by Joe.*◀

Take-home message

- Briefly summarise the main finding. What are the most important aspects the audience should keep in mind?
- Your presentation should never end with a slide showing the references or a plain slide with *Questions?* I.e., our recommendation is to end the presentation with the take-home messages.

References I

Backup slides

Sequence of additional slides. Useful to keep more information in the background which can be revealed during discussions.