

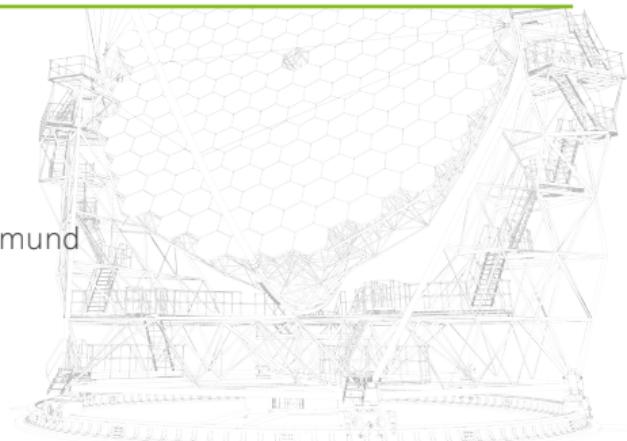
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# Finding optimal hyperparameters for cleaning algorithms for the Cherenkov Telescope Array

Bachelor thesis half-time talk

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Anno Knierim  
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E5b Astroparticle Physics  
Department of Physics – TU Dortmund



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## Notes

This theme is based on the excellent **TUDoBeamerTheme** provided by Maximilian Nöthe

<https://github.com/maxnoe/TUDoBeamerTheme>. I merely added the dark theme option as well as some extras I found useful or "nice to have" when I created some talks with the original theme.

- To install this theme at least the files **beamertemetudo.sty** and **beamertemetudo\_dark.sty** as well as the folder logos have to be moved to a folder where  $\text{\LaTeX}$  can find packages. This can be
  - **TEXMFHOME/tex/latex/tudobeamertheme** and **TEXMFHOME/tex/latex/tudobeamertheme\_dark**. You can get **TEXMFHOME** by running **kpsewhich --var-value TEXMFHOME**, usually this would be **\$HOME/texmf**.
  - The same folder in which you compile your document.
  - Any folder that is included in the variable **TEXINPUTS** (see **makefile**).

One liner for installation:

```
$ cd `kpsewhich --var-value TEXMFHOME` && git clone https://github.com/aknierim/tudobeamertheme_dark
```

General information on  $\text{\LaTeX}$  and Beamer:

- Extensive course on  $\text{\LaTeX}$  by PeP et Al.  
<http://toolbox.pep-dortmund.org/notes>
- Beamer  $\text{\LaTeX}$  class documentation:  
<http://www.ctan.org/pkg/beamer>

The font recommended in the corporate design of the TU Dortmund university is “Akkurat Office”.

If that font is not available, “Fira Sans” will be used as an alternative.

When using `xelatex` or `lualatex` the font “Latin Modern Math” will be used as a default but can be changed to “Fira Math” if you want a sans serif font.

## Some maths

Maths fonts can be set in `beamerthemetudo.sty` or `beamerthemetudo_dark.sty`. Currently this is set to “Latin Modern Math”. Look for `\setmathfont{}` to set a different math font.

$$\nabla \cdot \mathbf{B} = 0$$

$$\nabla \cdot \mathbf{E} = \frac{\rho}{\varepsilon_0}$$

$$\nabla \times \mathbf{E} = -\partial_t \mathbf{B}$$

$$\nabla \times \mathbf{B} = \mu_0 \mathbf{j} + \mu_0 \varepsilon_0 \partial_t \mathbf{E}$$

## Plot

This theme also comes with a `darkmode.mplstyle` that allows you to create plots fitting the dark or light theme (see `plots/darkmode.mplstyle`). The style will be applied automatically when running `make <all | light | dark>`.

