

# STHLMNORD BEAMER THEME [VERSION ROUND( $\pi$ , 2)]

Nord Inspired by Stockholm

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**Institute:** School in Stockholm

**Course:** Courses Title Goes Here

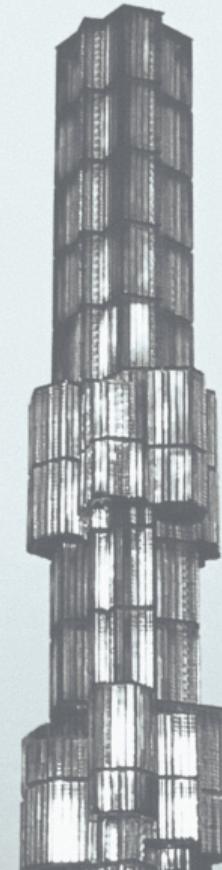
**File:** sthlmNordLightDemo

X<sub>3</sub>LATEXED ON 2022/04/14



s t h i m  
N O R D

**A Beamer Deck Theme**  
*with an arctic, north-blueish  
color palette.*



LATEX



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## **Background Information**

# Please use Metropolis Theme Instead

Thank you for wanting to use sthlmNord version 3.

## Warning Label

You really should consider using the Metropolis theme (mTheme) developed & maintained by Matthias Vogelgesang instead. It has been extensively tested, documented and available through CTAN.

<https://github.com/matze/mtheme>

# Major Features

- ◎ Inspired by HSRM<sup>1</sup>, mTheme<sup>2</sup> and Flux<sup>3</sup>.
- ◎ Color theme based on Arctic Ice Studio's Nord Color Theme.
- ◎ Libertinus sans-serif fonts compiled with X<sub>E</sub>T<sub>E</sub>X.
- ◎ Dark (default) and Light Themes available.

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<sup>1</sup><https://github.com/benjamin-weiss/hsrmbeamertheme>

<sup>2</sup><https://github.com/matze/mtheme>

<sup>3</sup><https://github.com/pvanberg/flux-beamer>

## A Brief History

The Original **sthlm** theme was created as pdflatex port of the unique **hsrm** theme designed by Benjamin Weiss along that included a more vibrant color scheme.

<https://github.com/benjamin-weiss/hsrmbeamertheme>

**sthlm** also borrowed heavily from **mTheme** for version 2. Version 3 has been rebuild with inspiration from the first two versions and the lesser known **Flux** theme created by Pierre-Olivier Vanberg.

<https://github.com/pvanberg/flux-beamer>

Version 3 is now called **sthlmNORD** and is being typeset once again using the X<sub>E</sub>LA<sub>T</sub>E<sub>X</sub> engine.

# Sorry ... No Guarantee

This is sharing to showcase. I have created `sthlmNORD` to template my slide decks and have shared the code for anyone who is interested in using it or modifying it to build their own decks.

## No Guarantee!

Unfortunately, I **cannot** guarantee that any of `\LaTeX` style files that make up `sthlmNORD` theme are *error free, optimized, well written or if they will work in your production environment*. I would not consider myself a `\TeX`nician wizard, so you have been warned! Please use with extreme **CAUTION**.

# Available on GitHub

This theme and all the documentation is hosted on GitHub

Download – Fork – Contribute

<https://github.com/mholson/sthlmNordBeamerTheme>



Figure: Hosted on GitHub

# Packages

Table: Packages explicitly called by `sthlmNORD` theme.

tikz	ragged2e	metalogo	tabulararray	currfile
datetime	microtype	textcomp	unicode-math	libertinus-oft
mathtools	amssymb	siunitx	calc	cancel
cases	fontawesome5	diffcoeff	wasysym	xfrac
subfiles	verbatim	minted	cleveref	enumitem

# Packages

The following custom packages make up the `sthlmNORDtheme`:

`beamertemesthlmnord.sty` the main style file.

`mhcolorthemenor.sty` the style file that defines the nord color palette.

`mhomacros.sty` custom mathematics macros.

`mhotables.sty` setup tables for use with tabulararray pkg.

# Colors

# Nord Color Palette

POLAR NIGHT

SNOW STORM

FROST

AURORA

nord 0

nord 4

nord 7

nord 11

nord 1

nord 5

nord 8

nord 12

nord 2

nord 6

nord 9

nord 13

nord 3

nord 10

nord 14

nord 15

### Polar Night

- ◎ text: \cDarkBlack{text} ∪ \cnordZero{text}
- ◎ text: \cBlack{text} ∪ \cnordOne{text}
- ◎ text: \cDarkGrey{text} ∪ \cnordTwo{text}
- ◎ text: \cGrey{text} ∪ \cnordThree{text}

### Polar Storm

- ◎ text: \cDivGrey{text} ∪ \cnordFour{text}
- ◎ text: \cLightGrey{text} ∪ \cnordFive{text}
- ◎ : \cBGGrey{text} ∪ \cnordSix{text}

### Polar Frost

- ◎ `text: \cAquaBlue{text} ∪ \cnordSeven{text}`
- ◎ `text: \cLightBlue{text} ∪ \cnordEight{text}`
- ◎ `text: \cBlue{text} ∪ \cnordNine{text}`
- ◎ `text: \cDarkBlue{text} ∪ \cnordTen{text}`

### Polar Aurora

- ◎ `text: \cRed{text} ∪ \cnordEleven{text}`
- ◎ `text: \cOrange{text} ∪ \cnordTwelve{text}`
- ◎ `text: \cYellow{text} ∪ \cnordThirteen{text}`
- ◎ `text: \cGreen{text} ∪ \cnordFourteen{text}`
- ◎ `text: \cPurple{text} ∪ \cnordFifteen{text}`

### Non-Nord Greens

- ◎ `text: \cDarkGreen{text}`
- ◎ `text: \cLightGreen{text}`

### Polar Night

- ◎  : \hlDarkBlack{text}
- ◎  : \hlBlack{text}
- ◎  : \hlDarkGrey{text}
- ◎  : \hlGrey{text}

### Polar Storm

- ◎  : \hlDivGrey{text}
- ◎  : \hlLightGrey{text}
- ◎  : \hlBGGrey{text}

### Polar Frost

- ◎  : \hlAquaBlue{text}
- ◎  : \hlLightBlue{text}
- ◎  : \hlBlue{text}
- ◎  : \hlDarkBlue{text}

### Polar Aurora

- ◎  : \hlRed{text}
- ◎  : \hlOrange{text}
- ◎  : \hl{text}
- ◎  : \hlGreen{text}
- ◎  : \hlPurple{text}

# **Deck Structures**

# Block Environments

## Block Environment

Lorem ipsum dolor sit amet, consectetuer adipiscing elit.

## Example Environment

Lorem ipsum dolor sit amet, consectetuer adipiscing elit.

## Alert Environment

Lorem ipsum dolor sit amet, consectetuer adipiscing elit.

## Enumerated Lists

- (a) Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
- (b) Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis.
  - i) Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi.
  - ii) Morbi auctor lorem non justo.
- (c) Curabitur dictum gravida mauris.
- (d) Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna.

 **Remark:** If you would like to use arabic numerals, then pass enumarabic as an argument to the documentclass: \documentclass[enumarabic]. Also, this theme does not support more than two levels of enumerated items by default.

## Itemized Lists

- ◎ Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
- ◎ Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis.
  - Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi.
    - ▷ Nulla malesuada porttitor diam.
    - ▷ Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis.
  - Morbi auctor lorem non justo.
- ◎ Curabitur dictum gravida mauris.
- ◎ Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna.

 **Remark:** This theme does not support more than three levels of itemized items; however, this could easily be expanded in the style file.

## Description Lists

**Definition 1** Lorem ipsum dolor sit amet, consectetuer adipiscing elit.

**Definition 2** Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis.

# Using Minted for Code Documentation

It might be nice to include some inline code `\documentclass[opt]{name}`

```
\documentclass[opt]{name}
\prob Solve the equation \(\cos x = \frac{1}{2}\)
for \(0 \leq x \leq 2\pi).
```

```
\soln A fantastic solution will follow.
```

**Listing 1:**  $\text{\LaTeX}$  example

# Using Minted for Code Documentation

```
import os
import sys
import subprocess
import getpass
from pathlib import Path
import shortuuid
from datetime import datetime
from tabulate import tabulate
```

**Listing 2:** Python example

## Example >\_ Additional text goes here

 **Problem:** Include your problem here.

 **Solution:** A fantastic solution can be written here.

**Theorem >\_** Additional text goes here

Write your proposition here.

 **Proof:** Write a convincing proof here.

# Fonts

## Fonts

- ◎ \textit : *The fast bulldog jumps the great happy wizard*
- ◎ \textbf : **The fast bulldog jumps the great happy wizard**
- ◎ \textsc : THE FAST BULLDOG JUMPS THE GREAT HAPPY WIZARD
- ◎ \rmfamily : The fast bulldog jumps the great happy wizard
- ◎ \texttt : The fast bulldog jumps the great happy wizard

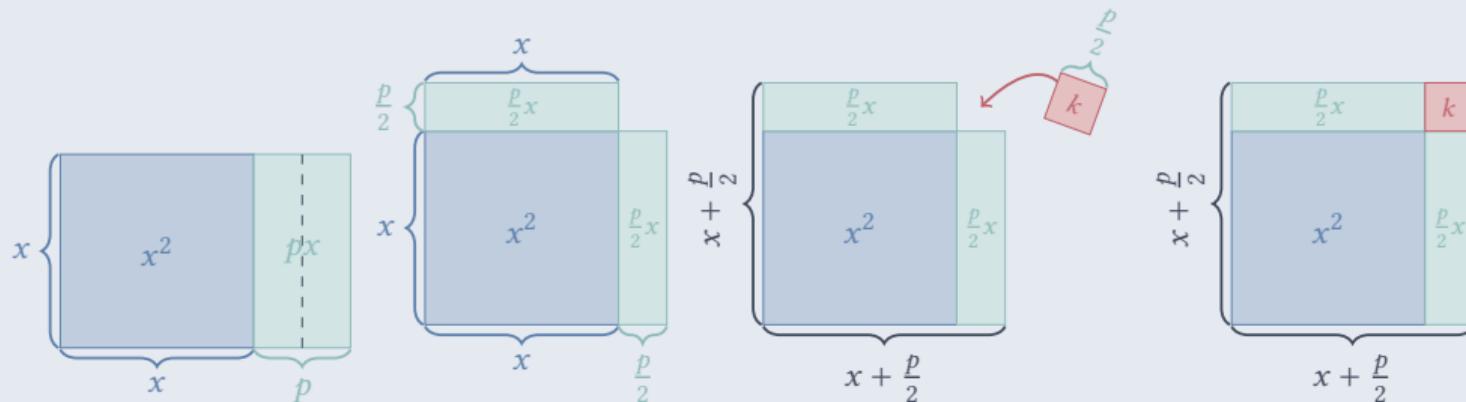
# Mathematics

## Gaussian Probability Density Function

$$f(x | \mu, \sigma^2) = \frac{1}{\sqrt{2\sigma^2\pi}} e^{-\frac{(x - \mu)^2}{2\sigma^2}}$$

# Including Graphics >\_ Using TikZ

## Completing The Square



## Example >\_ Expand & Simplify

 **Problem:** Expand and simplify  $2(x - 3)^2 - 3(x + 1)^2$ .

oxfordIGCSEext5th-C02-S04-E11-Q24[2] 

## Example >\_ Expand & Simplify

~ Solution:

$$\begin{aligned}2(x - 3)^2 - 3(x + 1)^2 &= 2(x + -3)^2 + -3(x + 1)^2 \\&= \textcolor{red}{2}[(x + -3)(x + -3)] + \textcolor{blue}{-3}[(x + 1)(x + 1)] \\&= \textcolor{red}{2}[x^2 + -6x + 9] + \textcolor{blue}{-3}[x^2 + 2x + 1] \\&= \textcolor{red}{2}(x^2) + \textcolor{red}{2}(-6x) + \textcolor{red}{2}(9) + \textcolor{blue}{-3}(x^2) + \textcolor{blue}{-3}(2x) + \textcolor{blue}{-3}(1) \\&= 2x^2 + -12x + 18 + -3x^2 + -6x + -3 \\&= 2x^2 + -3x^2 + -12x + -3x + 18 + -3 \\&= -1x^2 + -18x + 15 \\&= -x^2 - 18x + 15\end{aligned}$$

## Example >\_ Completing The Square

 **Problem:** Solve the equation  $x^2 + 2x - 3 = 0$  by completing the square.

ma2c-5000-2022-Q2119a[1] 

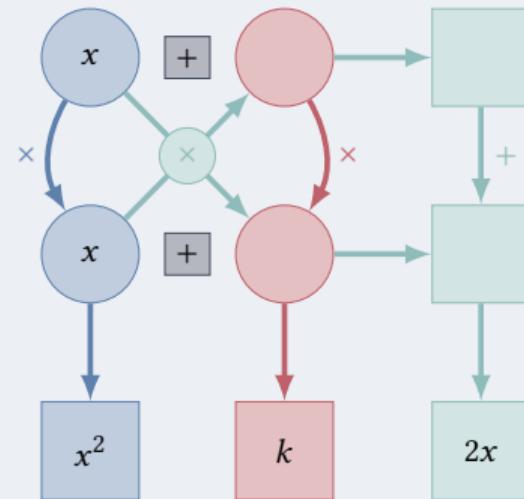
## Example >\_ Completing The Square

~ Solution:

$$x^2 + 2x - 3 = 0$$

$$x^2 + 2x + \textcolor{red}{-} 3 = 0$$

$$x^2 + 2x + \textcolor{red}{k} + \textcolor{red}{-} k + \textcolor{red}{-} 3 = 0$$



## Example >\_ Completing The Square

$$x^2 + 2x + k + -k + -3 = 0$$

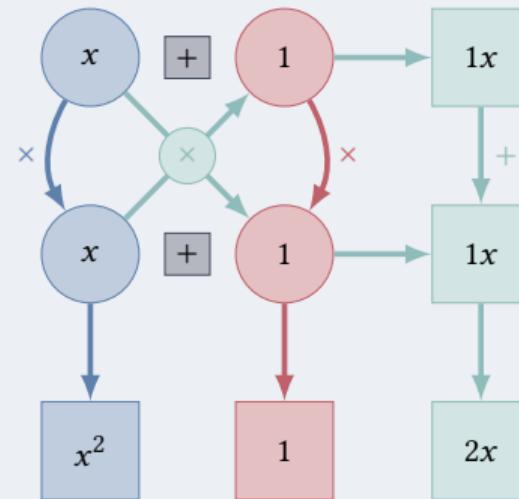
$$x^2 + 2x + 1 + -1 + -3 = 0$$

$$(x + 1)^2 + -4 = 0$$

$$(x + 1)^2 = 4$$

$$\sqrt{(x + 1)^2} = \sqrt{4}$$

$$|x + 1| = 2$$



Now we can consider both cases of  $|x + 1|$ .

## Example >\_ Completing The Square

### Case I: Positive Case

$$x + 1 = 2$$

$$x = -1 + 2$$

$$= 1$$

### Case II: Negative Case

$$-(x + 1) = 2$$

$$x + 1 = -2$$

$$x = -1 + -2$$

$$= -3$$

# Probability >\_ Dice and Coins

## Dice

- Ⓐ , , , , ,
- Ⓑ , , , , ,
- Ⓒ , , , , ,
- Ⓓ , , , , ,

## Coins

- Ⓐ ,
- Ⓑ ,
- Ⓒ ,
- Ⓓ ,

### Sample Space Set Example

	1	2	3	4	5	6
	7	8	9	10	11	12
	13	14	15	16	17	18
	19	20	21	22	23	24
	25	26	27	28	29	30
	31	32	33	34	35	36

## Sets > Well-Known

- |   |   |   |
|---|---|---|
| ◎ $\{\}: \backslash set\{\}$                        | ◎ $\mathbb{Z}: \backslash setZ$                     | ◎ $\mathbb{Q}: \backslash setQ$                     |
| ◎ $:: \suchthat$                                    | ◎ $\mathbb{Z}^+: \backslash setZp$                  | ◎ $\mathbb{Q}^+: \backslash setQp$                  |
| ◎ $\mathbb{U}: \backslash setU$                     | ◎ $\mathbb{Z}^-: \backslash setZn$                  | ◎ $\mathbb{Q}^-: \backslash setQn$                  |
| ◎ $\mathbb{S}: \backslash sets$                     | ◎ $\mathbb{Z}^*: \backslash setZs$                  | ◎ $\mathbb{Q}^*: \backslash setQs$                  |
| ◎ $\mathcal{C}: \backslash setComp$                 | ◎ $\mathbb{Z}_{\geq 4}: \backslash setZi\{\geq 4\}$ | ◎ $\mathbb{Q}_{\geq 4}: \backslash setQi\{\geq 4\}$ |
| ◎ $\mathbb{N}: \backslash setN$                     | ◎ $\mathbb{O}: \backslash setO$                     | ◎ $\mathbb{R}: \backslash setR$                     |
| ◎ $\mathbb{N}^*: \backslash setNs$                  | ◎ $\mathbb{E}: \backslash setE$                     | ◎ $\mathbb{R}^+: \backslash setRp$                  |
| ◎ $\mathbb{N}_{\geq 4}: \backslash setNi\{\geq 4\}$ | ◎ $\mathbb{P}: \backslash setP$                     | ◎ $\mathbb{R}^-: \backslash setRn$                  |
| ◎ $\mathbb{W}: \backslash setW$                     | ◎ $\mathbb{Z}_{n^2}: \backslash setSquare$          | ◎ $\mathbb{R}^*: \backslash setRs$                  |
|   | ◎ $\mathbb{Z}_{n^3}: \backslash setCubes$           | ◎ $\mathbb{R}_{\geq 4}: \backslash setQi\{\geq 4\}$ |
|   |   | ◎ $\mathbb{C}: \backslash setR$                     |

## References

## References

- [1] Lena Alfredsson and Hans Heikne. *Matematik 5000+ Kurs 1b Lärobok Digital*. OCLC: 1251871262. 2021. ISBN: 978-91-27-45820-8.
- [2] David Rayner. *Complete mathematics for Cambridge IGCSE: Extended*. Fifth edition. Aspire succeed progress. Oxford: Oxford University Press, 2018. 493 pp. ISBN: 978-0-19-842507-6.