Stockholm Beamer Theme

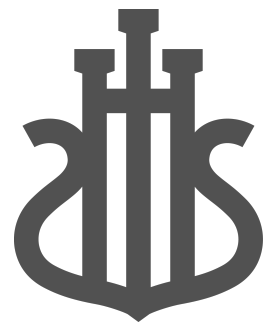
sthlm v2.0.0 is based on hsrm & mTheme

MarkOlson.SE

Updated: 2016/12/12

Made in *Sweden*

File: 20150731-081156-rs2.2B-sthlmBeamerTemplate



Please use Metropolis Theme Instead

Thank you for wanting to use sthlm.

However, **you really should consider** using the Metropolis (mTheme) theme developed by Matthias Vogelgesang and the LaTeX community instead as it is very well maintained and documented.

https://goo.gl/r683yn

Overview

1. General Information
2. Colors
3. Blocks
4. Fonts
5. Features

General Information

sthlm Theme Information

sthlm theme was originally designed to bring pdflatex support and color to the unique beamer hsrm theme designed by Benjamin Weiss. Thank You Ben!

https://goo.gl/NRseuc

Since then, sthlm has borrowed heavily from mTheme developed by Matthias Vogelgesang.

sthlm Theme Information

sthlm continues to be a theme that can easily be modfied through the style files. If you are looking for a packaged theme, then I highly recommend mTheme.

I use a custom version of sthlm for daily decks and make a vanilla version of the theme available for others to use and modifiy. - Enjoy!

sthml Build Information

sthlm theme has been designed and tested to work within the SageMathCloud (Linux) environment.

Warning of Build Issues

I cannot guarantee that the code used to create the sthlm theme is *error free, optimized, well written* nor *if it will work in your production environment*.

Have Fun!

If you have read this far, then you are probably interested in using / modifiying this theme for your own project.

Everything you need is in the

- style files:
  - `beamerthemesthlm.sty`,
  - `beamerfontthemesthlm.sty`,
  - `beamercolorthemesthlm.sty`.

Get it on GitHub

This theme and all the documentation is hosted on GitHub

Download, Fork, Contribute

https://goo.gl/0Wg6xt

Figure: Hosted on GitHub

Thank You Overleaf

Special thank you to Overleaf - especially Dr. Lian Tze Lim for supporting those using the theme on Overleaf. Awesome work!

You can view and download the theme from Overleaf.

https://goo.gl/Z5zrsF

Figure: Thank You Overleaf

Theme Package Requirements

This theme requires that the following packages are installed:

- *beamer*
- *backgrounds*
- *booktabs*
- *calc*
- *datetime*
- *ragged2e*
- *tikz*
- *wasysym*

There is always the option of simplifying the theme to reduce the number of required packages.

Replace the Logo With Your Own

The Sigtunaskolan Humanistiska Läroverket logo, `logo.png`, should be replaced with your own. I teach within the Mathematics Institution at SSHL.

Figure: SSHL Logo

Theme Options

Option	Description
`newPxFont`	newpxtext and newpxtext fonts will be used (pdfLaTeX)
`progressbar`	Frame Title progress bar
`sectionpages`	Section pages
`fullfooter`	Footers with logo
`numfoooter`	Footers with page number only
`greybg`	Frame background default is set to grey
`cblock`	Blocks with colored background
`protectFrameTitle`	Protect the frame title (if needed)
`valigncolumns`	Vertically align columns

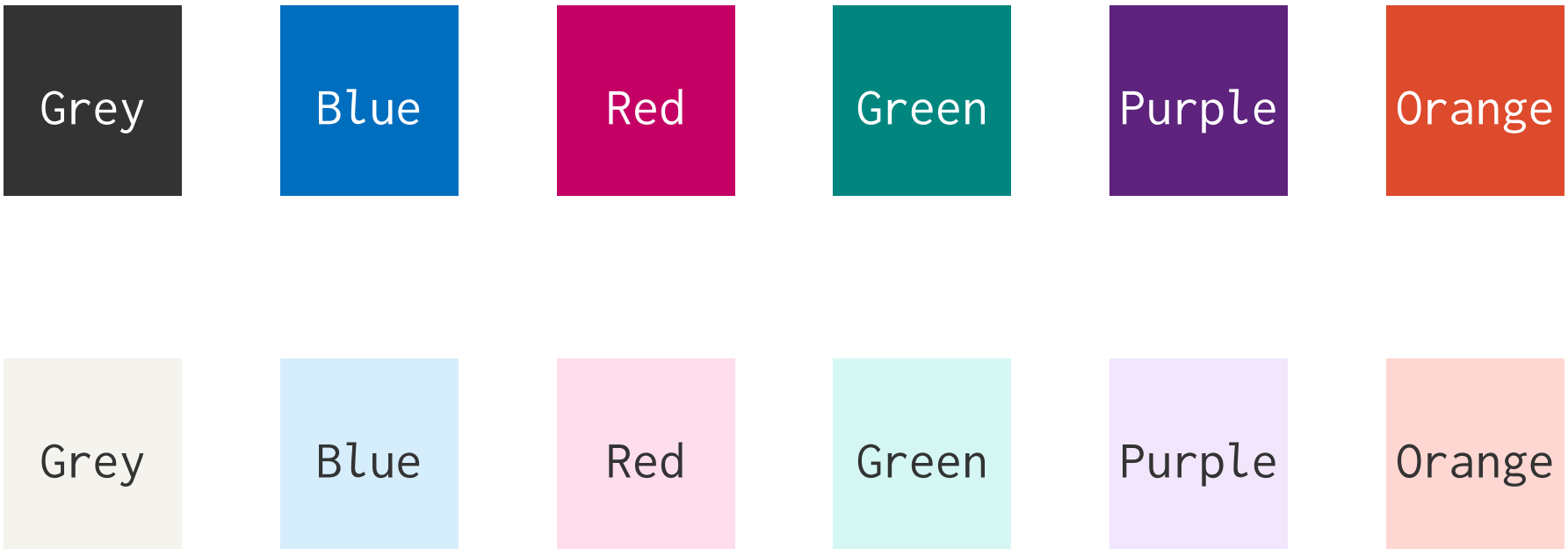
Colors

Color Style File

The sthlm theme style file `beamerthemesthlm.sty` references the `beamercolorthemesthlm.sty` file for the theme colors automatically.

If you wish to bring your own color theme, then you will have to either change the reference in the `beamerthemesthlm.sty` file or rename your style file to `beamercolorthemesthlm.sty`.

Primary Presentation Colors



Colored Text

Table: Colored Text

Red	LightRed	Red
Blue	LightBlue	Blue
Green	LightGreen	Green
Purple	LightPurple	Purple
Orange	LightOrange	Orange
Grey	Grey	DarkGrey

Green Background

Light Green Background

Colored Title Block

Great for examples

Blue Background

Frame Colored Backgrounds

Blue Background

Colored Title Block

Great for definitions

Red Background

Red Background

Colored Title Block

Great for alerts

Purple Background

Light Purple Background

Colored Title Block

Great for Proofs

Keeping it Simple

Plain Frame

Plain Frame

Blocks

Blocks

Block Title Here

Great for definitions

Alert Title Here

Great for definitions

Example Title Here

Great for examples

Blocks

Block Title Here

- point 1
- point 2

Blue Colored Blocks

Produced by using the `cblock` theme option

Additional Blocks

Alert Block

Highlight important information.

Red Colored Blocks

Produced by using the `cblock` theme option

Additional Blocks

Example Block

Examples can be good.

Green Colored Blocks

Produced by using the `cblock` theme option

Custom Blocks

Purple customization

Using the theme colors to generate colored blocks.

Fonts

No Special Fonts Required

This theme was originally made to work with `pdflatex` and the default latex fonts.

sthlm does comes with a `pdflatex` font option, newPxFont, which loads the following fonts:

- *newpxtext* for text
- *cabin* for sans-serif
- *inconsolata* for sans-serif monospaced
- *newpxmath* for math

Please refer to the `beamerfontthememsthlm.sty` for the package requirements.

Features

Tables

Table: Selection of window function and their properties

Window	**First side lobe**	**3 dB bandwidth**	**Roll-off**
Rectangular	13.2 dB	0.886 Hz/bin	6 dB/oct
Triangular	26.4 dB	1.276 Hz/bin	12 dB/oct
Hann	31.0 dB	1.442 Hz/bin	18 dB/oct
Hamming	41.0 dB	1.300 Hz/bin	6 dB/oct

Show $[x^n]' = nx^{n-1}$ by using first principles.

$$f'(x) = \lim_{\Delta x \to 0} \frac{f(x + \Delta x) - f(x)}{\Delta x}$$

Show $[x^n]' = nx^{n-1}$ by using first principles.

$$f'(x) = \lim_{\Delta x \to 0} \frac{f(x + \Delta x) - f(x)}{\Delta x}$$

$$= \lim_{\Delta x \to 0} \frac{(x + \Delta x)^n - (x)^n}{\Delta x}$$

Show $[x^n]' = nx^{n-1}$ by using first principles.

$$
\begin{aligned}
f'(x) &= \lim_{\Delta x \to 0} \frac{f(x+\Delta x) - f(x)}{\Delta x} \\
&= \lim_{\Delta x \to 0} \frac{(x+\Delta x)^n - (x)^n}{\Delta x} \\
&= \lim_{\Delta x \to 0} \frac{\binom{n}{0} x^n \Delta x^0 + \binom{n}{1} x^{n-1} \Delta x^1 + \cdots + \binom{n}{n} x^0 \Delta x^n - x^n}{\Delta x}
\end{aligned}
$$

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&= \lim_{\Delta x \to 0} \frac{\binom{n}{0}x^n\Delta x^0 + \binom{n}{1}x^{n-1}\Delta x^1 + \cdots + \binom{n}{n}x^0\Delta x^n - x^n}{\Delta x} \\
&= \lim_{\Delta x \to 0} \frac{1x^n(1) + nx^{n-1}\Delta x^1 + \cdots + 1(1)\Delta x^n - x^n}{\Delta x}
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$$

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&= \lim_{\Delta x \to 0} \frac{x^n + nx^{n-1}\Delta x + \cdots + \Delta x^n - x^n}{\Delta x}
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&= \lim_{\Delta x \to 0} \frac{x^n + nx^{n-1}\Delta x + \cdots + \Delta x^n - x^n}{\Delta x} \\
&= \lim_{\Delta x \to 0} \frac{\cancel{\Delta x}(nx^{n-1} + \cdots + \Delta x^{n-1})}{\cancel{\Delta x}}
\end{aligned}
$$

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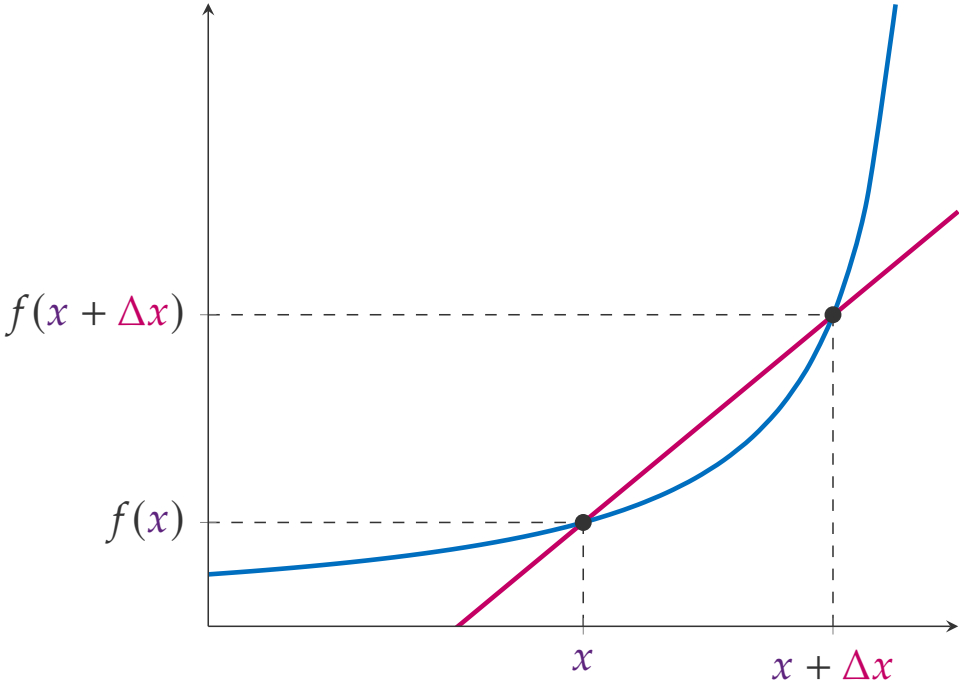
&= \lim_{\Delta x \to 0} \frac{\cancel{\Delta x}(nx^{n-1} + \cdots + \Delta x^{n-1})}{\cancel{\Delta x}} \\
&= nx^{n-1}
\end{aligned}
$$

Gaussian Probability Distribution Function

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

More Mathematics

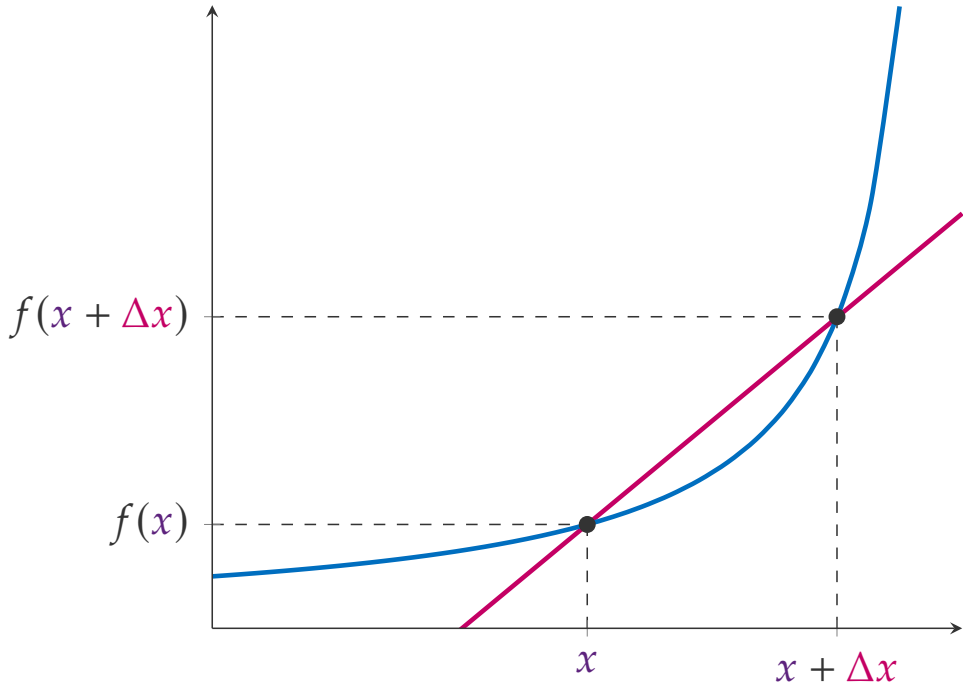


$$m = \frac{\Delta y}{\Delta x}$$

$$m = \frac{\qquad\qquad}{\qquad\qquad}$$

$$m = \frac{\qquad\qquad}{\underbrace{\qquad\qquad}}$$

More Mathematics



$$m = \frac{\Delta y}{\Delta x}$$

$$m = \frac{f(x + \Delta x)}{\qquad\qquad}$$

$$m = \underbrace{\frac{\qquad\qquad}{\qquad\qquad}}$$

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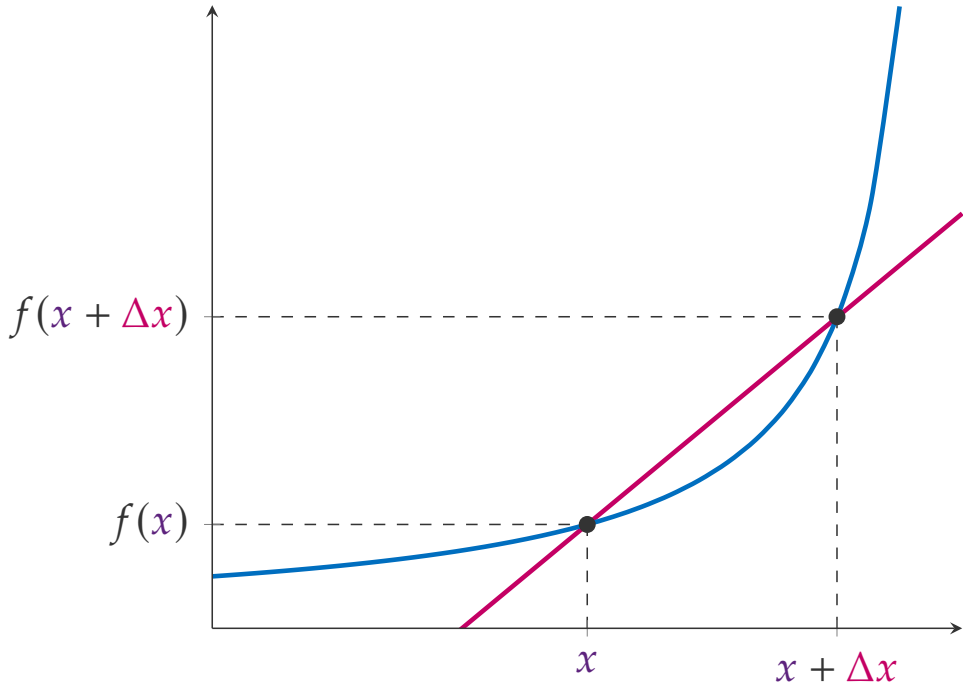
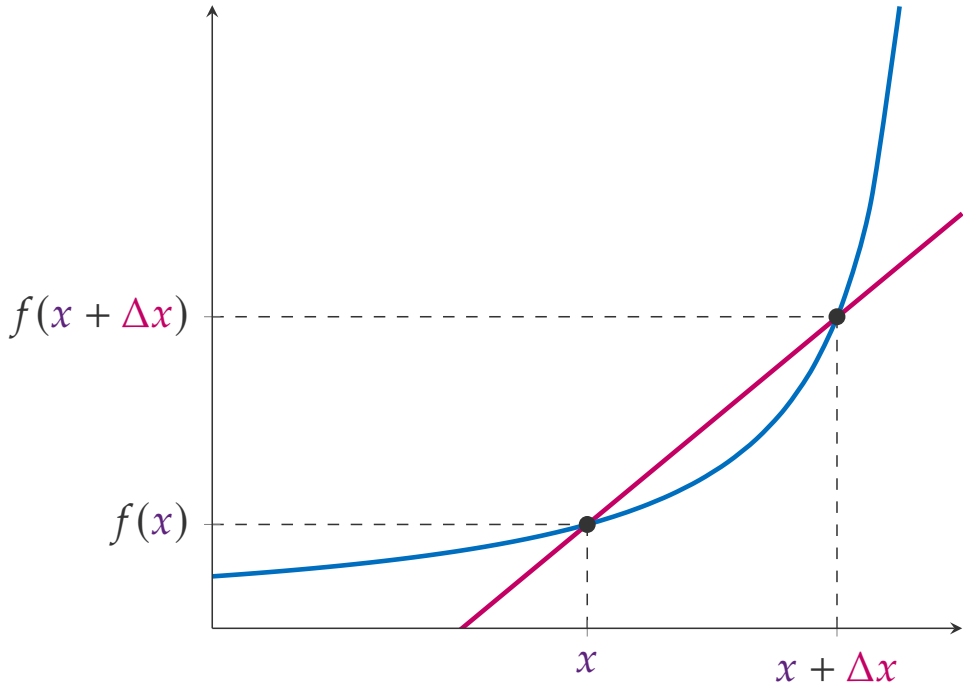


$$m = \frac{\Delta y}{\Delta x}$$

$$m = \frac{f(x + \Delta x) -}{}$$

$$m = \underbrace{\qquad\qquad\qquad\qquad}$$

More Mathematics

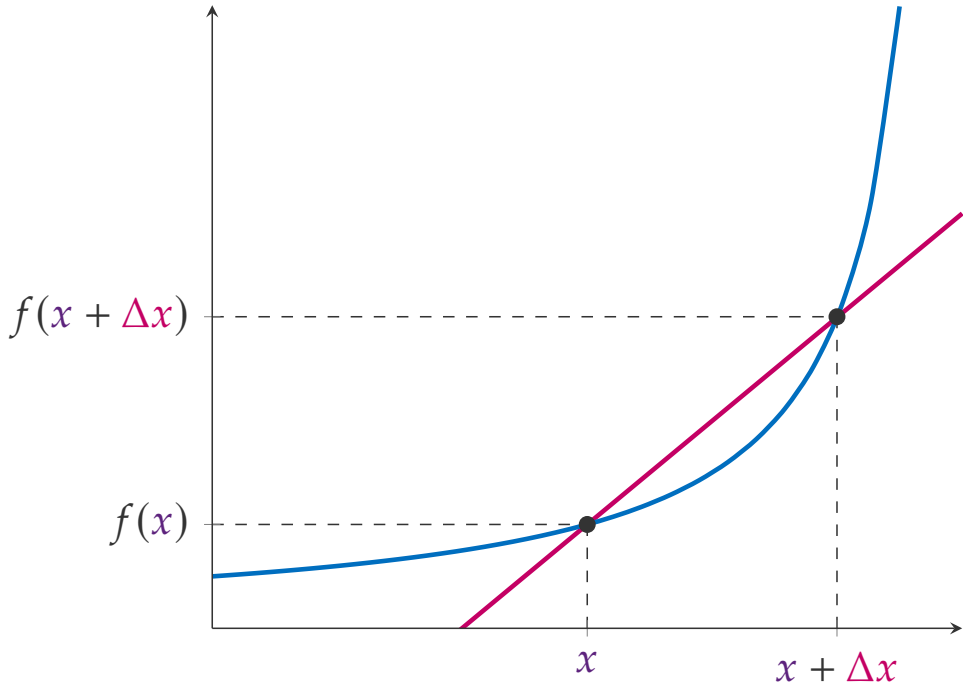


$$m = \frac{\Delta y}{\Delta x}$$

$$m = \frac{f(x + \Delta x) - f(x)}{}$$

$$m = \underbrace{\qquad\qquad\qquad\qquad}$$

More Mathematics



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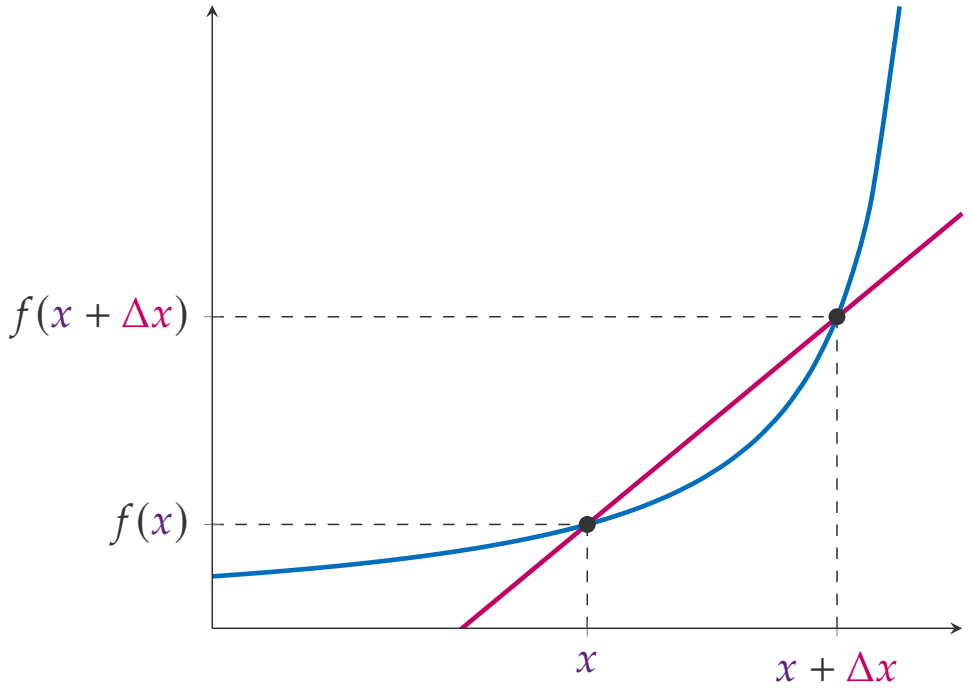
$$m = \frac{f(x + \Delta x) - f(x)}{x + \Delta x}$$

$$m = \underbrace{\qquad\qquad\qquad\qquad}$$

More Mathematics



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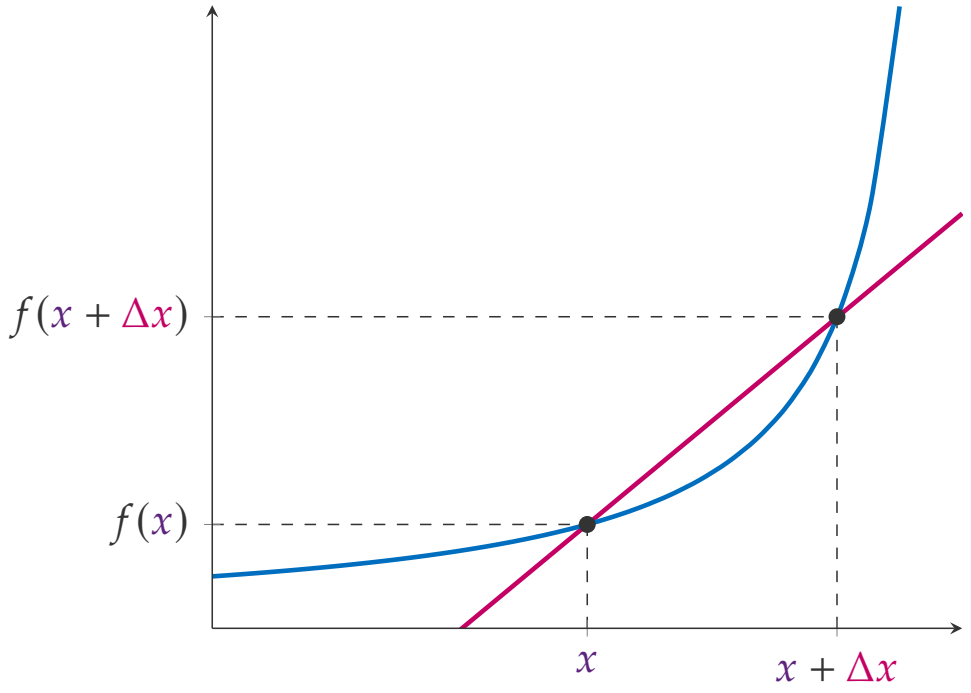

$$m = \frac{\Delta y}{\Delta x}$$

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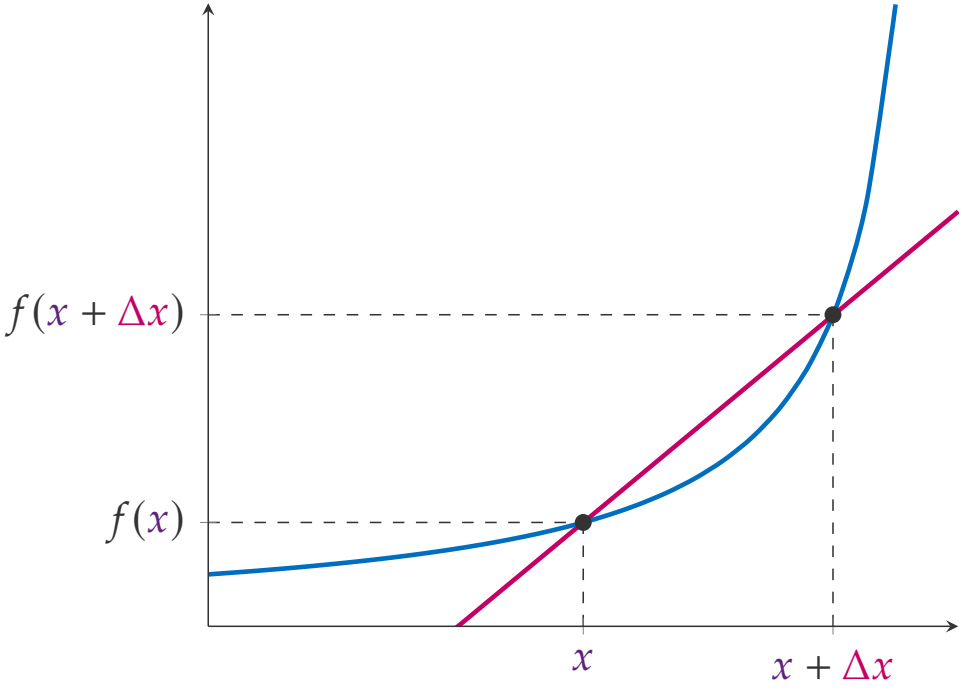
$$m = \underbrace{\qquad\qquad\qquad\qquad}$$

More Mathematics



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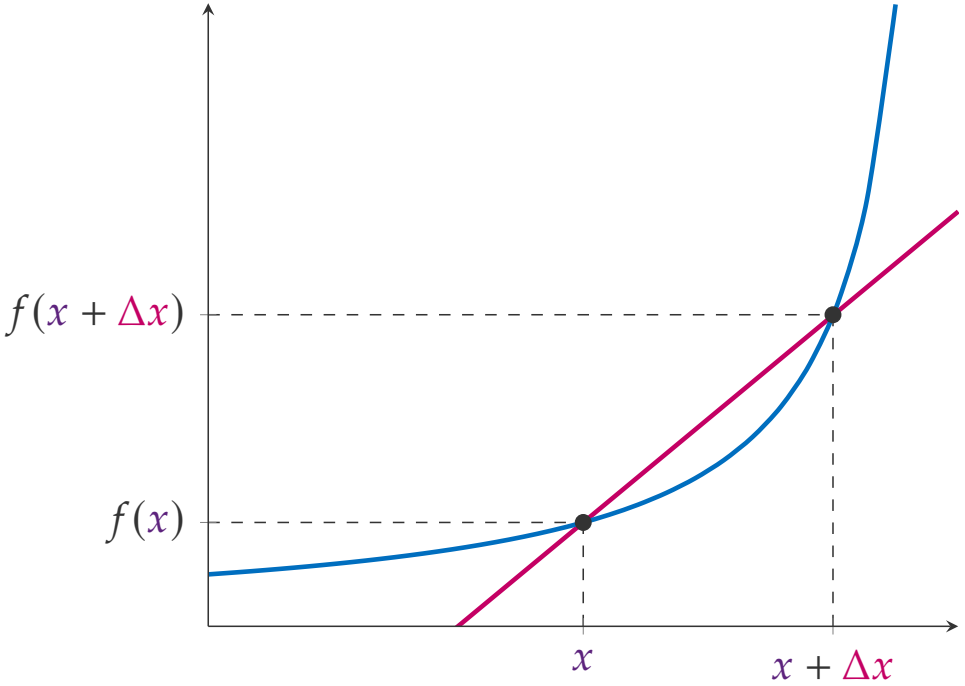
More Mathematics



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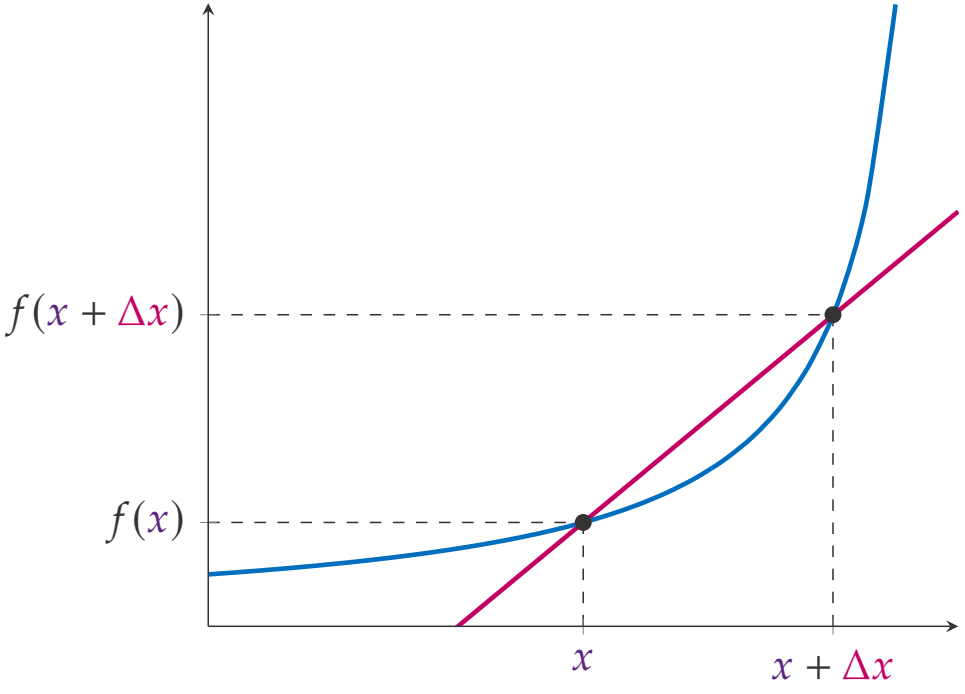

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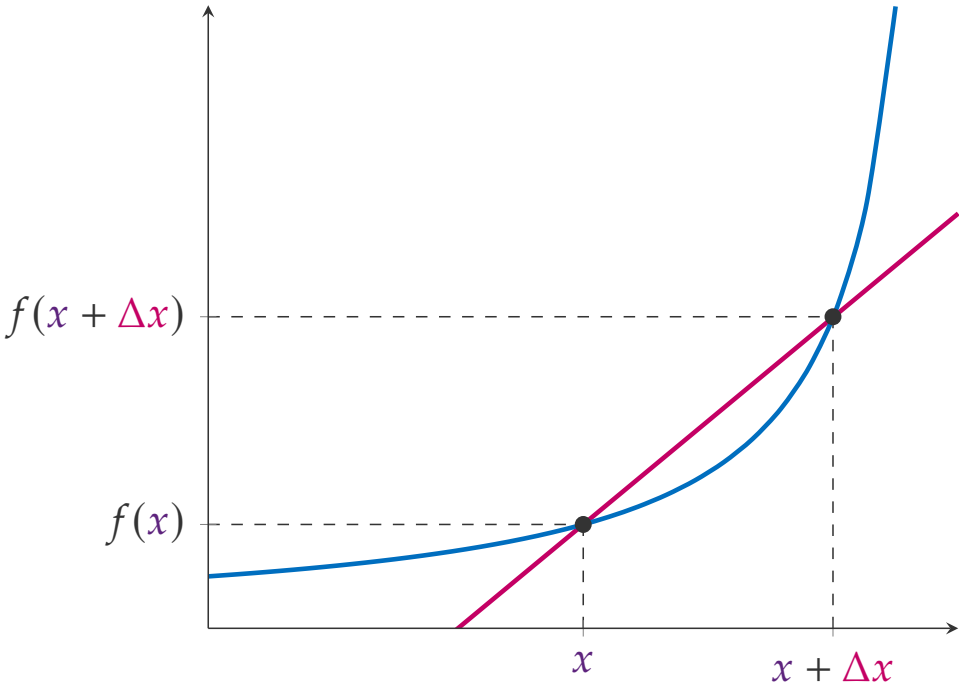
$$m = \frac{f(x + \Delta x) - f(x)}{x + \Delta x - x}$$

$$m = \underbrace{\frac{f(x + \Delta x) - f(x)}{\Delta x}}_{\text{difference quotient}}$$

The slope of the secant line

- can be found using the difference quotient

More Mathematics



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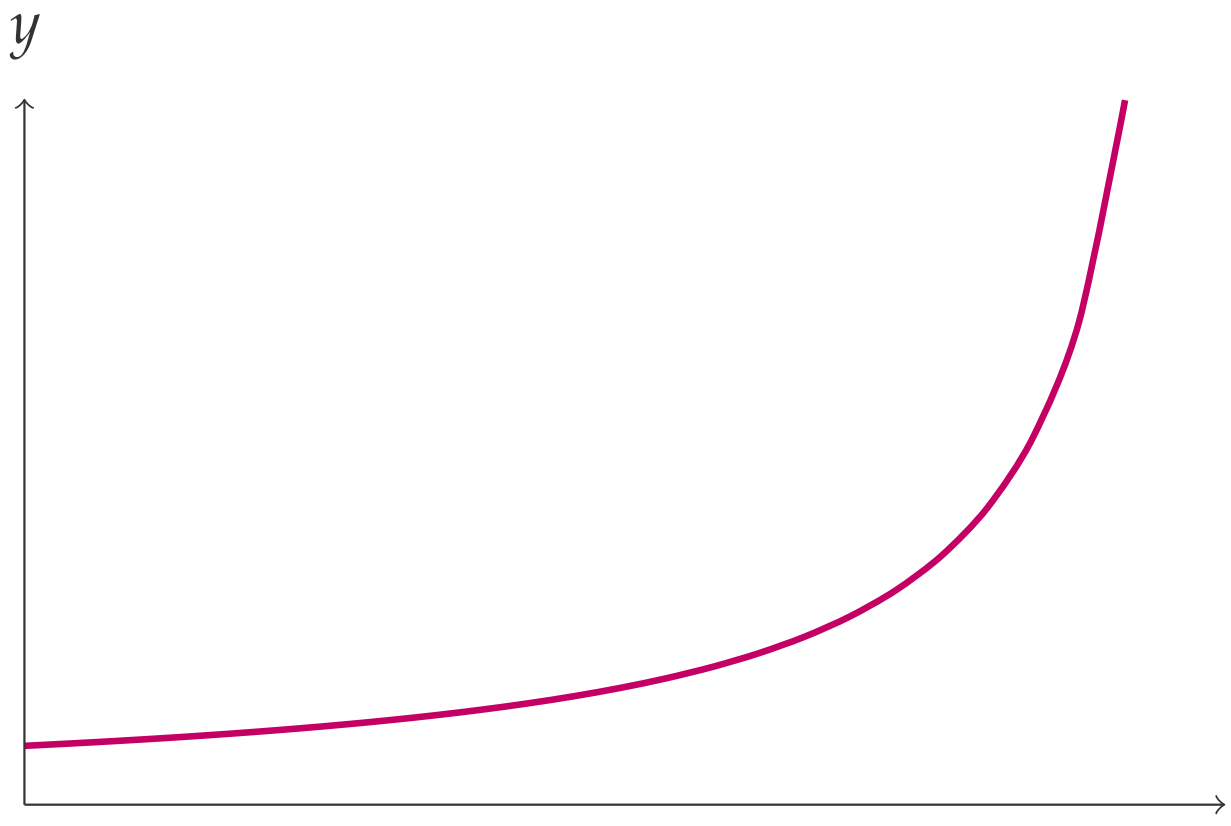
The slope of the secant line

- can be found using the difference quotient
- represents a function's average slope on the interval $[x, x + \Delta x]$

Fragile Frames Not a Problem



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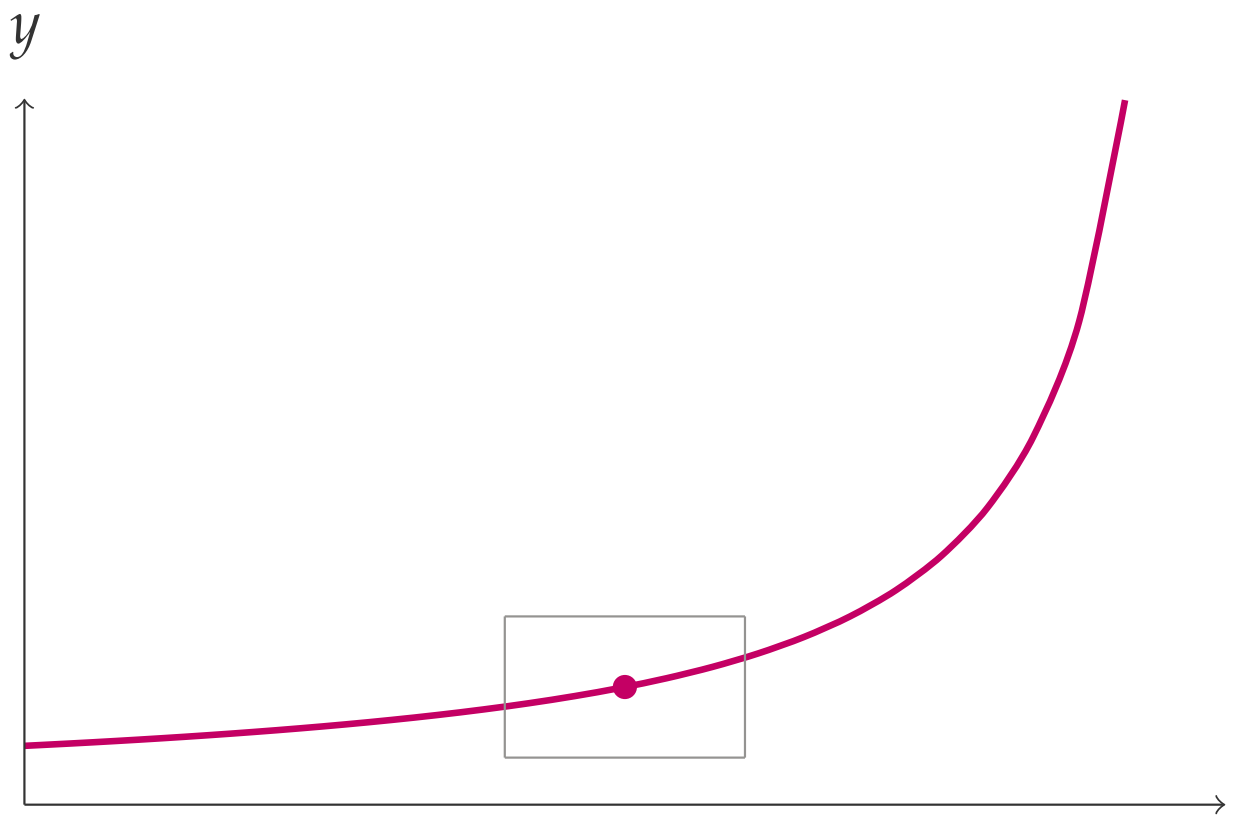

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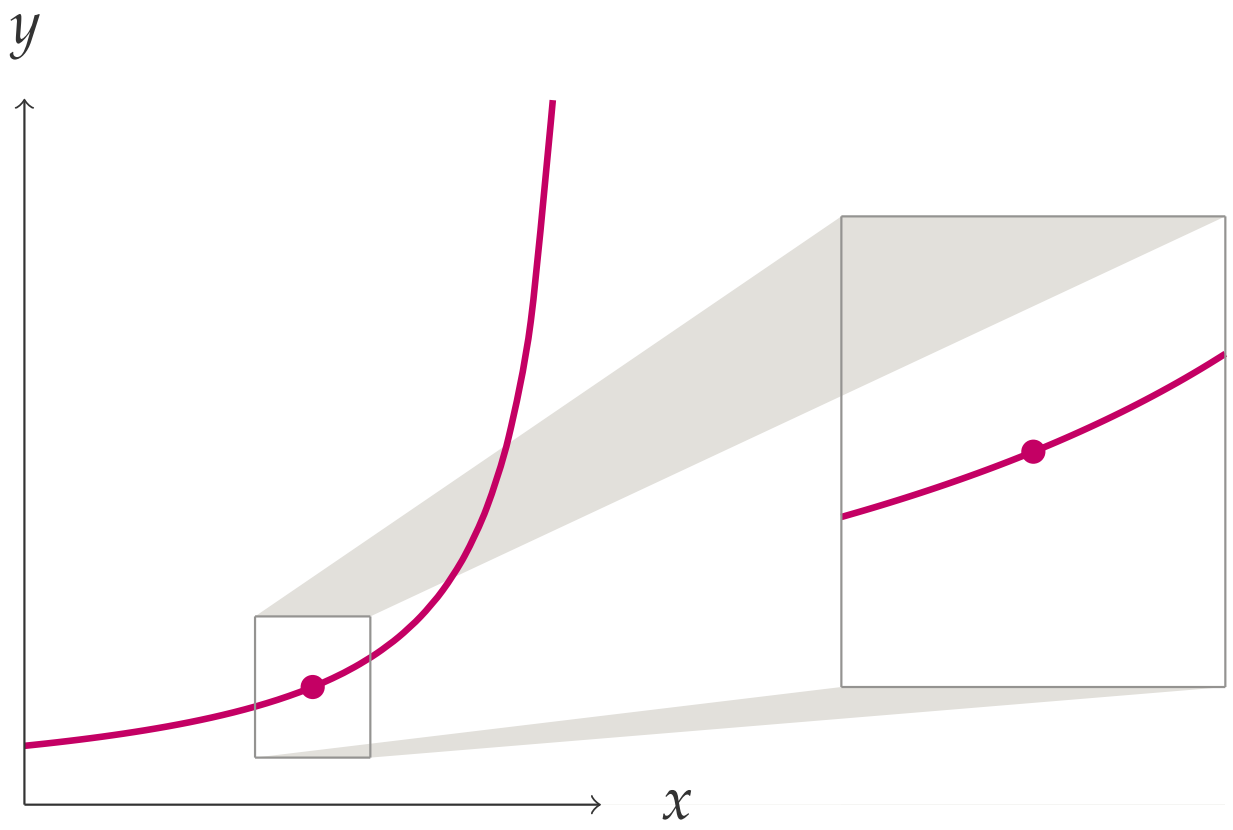
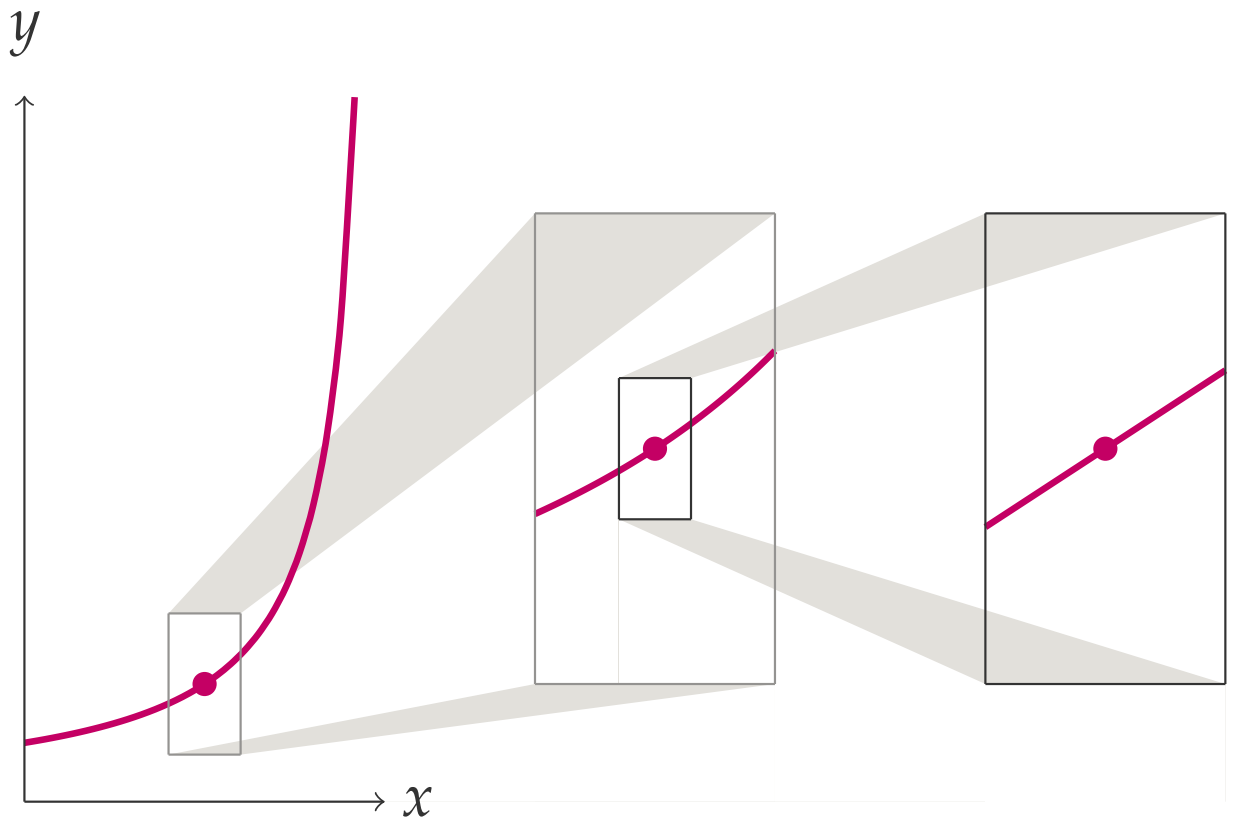


Fragile Frames Not a Problem



PGFPlots Example

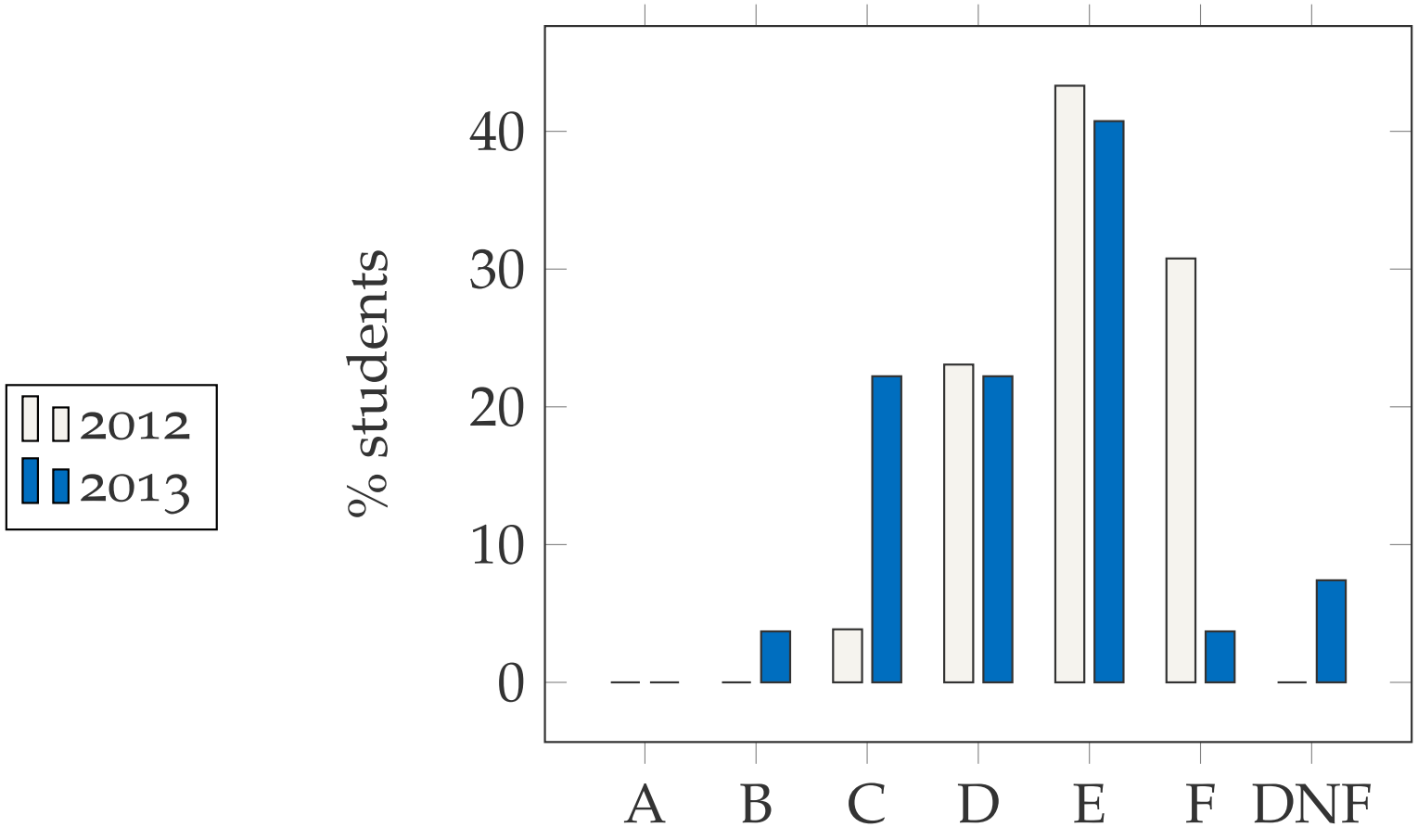


Figure: Consistent improvement over the last year

Multiple Columns

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam.

- Point 1
  - Sub point a
  - Sub point b
- Point 2

References

Alan V. Oppenheim
Discrete - Time Signal Processing
Prentice Hall Press, 2009

European Broadcasting Union
Specification of the Broadcast Wave Format (BWF)
2011

About

This sthlm beamer theme is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

If you have any questions or comments

- Website: markolson.se
- Twitter: @markolsonse
- Instagram: @markolson.se

THE END