

# ATTENUATION-BASED LIGHT FIELD DISPLAYS

---

Adrian Wälchli

March 2, 2016

Institut für Informatik und angewandte Mathematik

1. Motivation
2. Introduction to Light Fields
3. Problem Statement
4. Solution
5. Frequency Analysis
6. Conclusion
7. Elements
8. Conclusion

# MOTIVATION

---

# INTRODUCTION TO LIGHT FIELDS

---

- Measures light in the world

$P(x, y, z, \theta, \phi, t, \lambda)$  Sketch of  
plenoptic function

- Measures light in the world
- Defined

$P(x, y, z, \theta, \phi, t, \lambda)$  Sketch of  
plenoptic function

# THE PLENOPTIC FUNCTION

- Measures light in the world
- Defined
- And now this

$P(x, y, z, \theta, \phi, t, \lambda)$  Sketch of  
plenoptic function





# PROBLEM STATEMENT

---

# SOLUTION

---

# FREQUENCY ANALYSIS

---

# CONCLUSION

---

The *mtheme* is a Beamer theme with minimal visual noise inspired by the HSRM Beamer Theme by Benjamin Weiss.

Enable the theme by loading

```
\documentclass{beamer}  
\usetheme{m}
```

Note, that you have to have Mozilla's *Fira Sans* font and XeTeX installed to enjoy this wonderful typography.

Sections group slides of the same topic

```
\section{Elements}
```

for which the *mtheme* provides a nice progress indicator ...

# ELEMENTS

---

The theme provides sensible defaults to `\emph{emphasis}` text, `\alert{accent}` parts or show `\textbf{bold}` results.

becomes

The theme provides sensible defaults to *emphasis* text, **accent** parts or show **bold** results.



## Items

- Milk
- Eggs
- Potatos

## Enumerations

1. First,
2. Second and
3. Last.

PowerPoint Meeh.

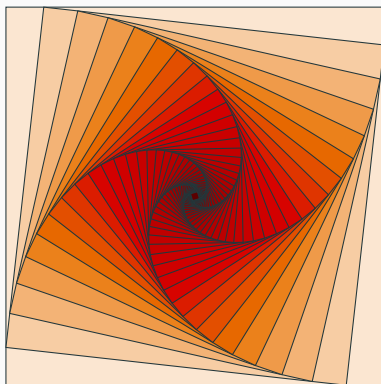
Beamer Yeeeha.

- This is important

- This is important
- Now this

- This is important
- Now this
- And now this

- This is really important
- Now this
- And now this



**Figure:** Rotated square from texample.net.

**Table:** Largest cities in the world (source: Wikipedia)

City	Population
Mexico City	20,116,842
Shanghai	19,210,000
Peking	15,796,450
Istanbul	14,160,467



This is a block title

This is soothing.

$$e = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n$$

*Veni, Vidi, Vici*

DARK BACKGROUND



# CONCLUSION

---

Get the source of this theme and the demo presentation from

`github.com/matze/mtheme`

The theme *itself* is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.



QUESTIONS?