



Introduction to Scientific Working

Aart Middeldorp

Keywords

acknowledgement awards beamer bibliography CORE ranking DBLP
conference editorial board generative AI Google Scholar h-index impact factor
journal \LaTeX LIPIcs LNCS open access plagiarism presentation
program committee rebuttal review submission TikZ workshop ...

Types of Scientific Works

- ▶ seminar report
- ▶ bachelor thesis
- ▶ master thesis
- ▶ PhD thesis
- ▶ habilitation thesis
- ▶ workshop paper
- ▶ conference paper
- ▶ journal article
- ▶ book chapter
- ▶ book

Outline

1. Organisation
2. TikZ
3. Conferences
4. LaTeX
5. Homework

Outline

1. Organisation
2. TikZ
3. Conferences
4. LaTeX
5. Homework

Relative Coordinates

```
\draw[thin,dotted] (-4,-4) grid (4,4);  
\draw[thick,red]  
(-3,1) -- ++(1,0) -- ++(1,2) -- ++(2,0) -- ++(1,-2) -- ++(1,0);
```

Shapes

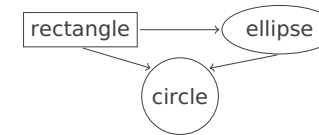
```
\draw[shading=ball, ball color=yellow] (0,0) circle (2);  
\draw[shading=ball, ball color=black] (-.5,.5) ellipse (.2 and .4);  
\draw[shading=ball, ball color=black] (.5,.5) ellipse (.2 and .4);  
\draw[very thick] (-1,-1) arc (185:355:1 and .5);
```

src

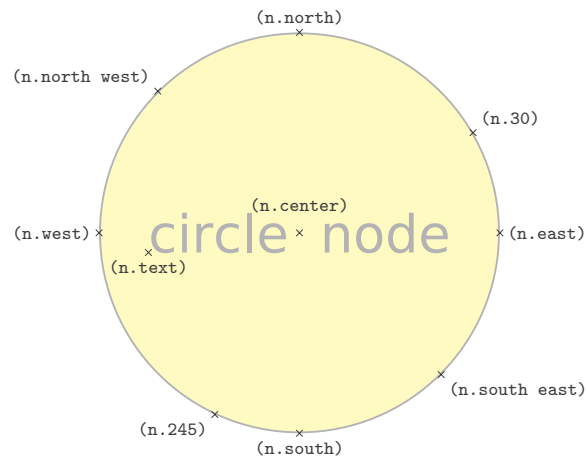
Nodes and Shapes

```
\usetikzlibrary{shapes}  
\node (r) at (0,1) [draw, rectangle] {rectangle};  
\node (c) at (1.5,0) [draw, circle] {circle};  
\node (e) at (3,1) [draw, ellipse] {ellipse};  
\draw[->] (r.east) -- (e.west);  
\draw[->] (r.south) -- (c.north west);  
\draw[->] (e.south) -- (c.north east);
```

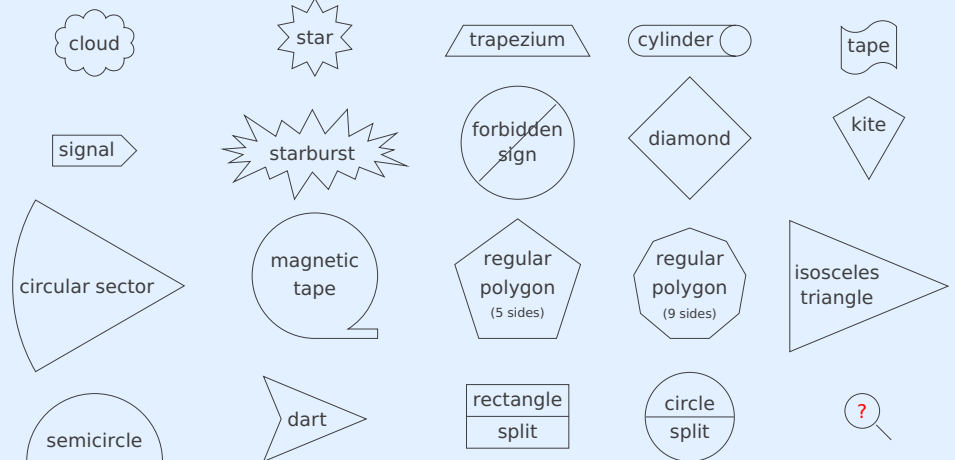
src



► predefined shapes have numerous **anchor** points



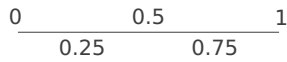
Various Node Shapes



Lines and Nodes

```
\usetikzlibrary{positioning}
\draw (0,0) --
  node [above, pos=0] {0}
  node [above, pos=0.5] {0.5}
  node [above, pos=1] {1}
  node [below, pos=0.25] {0.25}
  node [below, pos=0.75] {0.75}
(4,0);
```

src



Outline

1. Organisation
2. TikZ
3. Conferences
4. LaTeX
5. Homework

Alignment

```
\begin{tikzpicture}[every node/.style = {inner sep=0pt}]
\node (E) {E};
\node (p) [base right = Opt of E] {p};
\node (i) [base right = Opt of p] {i};
\node (c) [base right = Opt of i] {c};
\node (.) [base right = Opt of c] {.};
\end{tikzpicture}
```

Epic.

- ▶ location (Kaiserslautern or Honolulu)
- ▶ call for papers
- ▶ deadlines
- ▶ program committee
- ▶ invited speakers
- ▶ accepted papers
- ▶ rebuttal
- ▶ publication
- ▶ ranking
- ▶ awards

Locations

Chapel Hill Asilomar Montreal Como Pont-à-Mousson Kaiserlautern Nancy Madrid
Århus 裾野 New Brunswick Utrecht 会津 Paris Lille Townsville Auckland Trento
Pittsburgh Fischbachau 東京 Siena Copenhagen 京都 Valencia Miami
奈良 Linz Seattle Harrachov Lisbon Bremen Tarragona Hagenberg Sydney
Doha Brasilia Špindlerův Mlýn Dakar Edinburgh Yogyakarta Novi Sad Wrocław
Mérida Stellenbosch Eindhoven 金沢 Vienna Warsaw Porto Gothenburg
Oxford Hanoi Prague Natal Haifa Rome Białystok Tallinn Stuttgart

\`a \r{A} \v{S} \r{u} \y \e \l

- ▶ **location** (Kaiserslautern or Honolulu)
- ▶ **call for papers**
- ▶ **deadlines**
- ▶ **program committee**
- ▶ **invited speakers**
- ▶ accepted papers
- ▶ rebuttal
- ▶ publication
- ▶ ranking
- ▶ awards



phd.stanford.edu

Federated Logic Conference (FLoC) 2026

- ▶ 32nd International Conference on Principles and Practice of Constraint Programming CP
- ▶ 11th International Conference on Formal Structures for Computation and Deduction FSCD
- ▶ 42nd International Conference on Logic Programming ICLP
- ▶ 23rd International Conference on Principles of Knowledge Representation and Reasoning KR
- ▶ 41st Annual Symposium on Logic in Computer Science LICS
- ▶ 29th International Conference on Theory and Applications of Satisfiability Testing SAT
- ▶ 38th International Conference on Computer Aided Verification CAV
- ▶ 39th IEEE Computer Security Foundations Symposium CSF
- ▶ 13th International Joint Conference on Automated Reasoning IJCAR
- ▶ 17th International Conference on Interactive Theorem Proving ITP

Outline

1. Organisation
2. TikZ
3. Conferences
4. LaTeX
5. Homework

```
\begin{tabular}{l|r|r|r|c}
tool & YES & NO & MAYBE & TIMEOUT & place \\ \hline
ACP & 48 & 26 & 12 & 14 & 3 \\
AProVE & 21 & 21 & 58 & 0 & 6 \\
CONFident & 21 & 22 & 36 & 21 & 5 \\
CSI & 51 & 33 & 3 & 13 & 1 \\
FORT-h & 8 & 9 & 83 & 0 & 7 \\
Grackle-CSI & 48 & 34 & 5 & 13 & 2 \\
Hakusan & 27 & 34 & 22 & 17 & 4
\end{tabular}
```

STC

- ▶ columns are specified by `l r c`
- ▶ `|` creates vertical line
- ▶ columns are separated by `&`
- ▶ rows are separated by `\\`
- ▶ `\hline` creates horizontal line

Exemplary Bachelor Theses

- | | | |
|---------------|----------------------|------|
| ▶ Number Link | Benjamin Rupprechter | 2009 |
| ▶ Kurodoko | Johannes Koch | 2020 |
| ▶ Five Cells | Diana Gründlinger | 2023 |

Common Ingredients

- | | | |
|---------------------|----------------|---------------------|
| ▶ appendices | ▶ formulas | ▶ screen shots |
| ▶ bibliography | ▶ hyper links | ▶ table of contents |
| ▶ chapters/sections | ▶ lists | ▶ tables |
| ▶ figures | ▶ plots | |
| ▶ footnotes | ▶ program code | |

- ▶ `\renewcommand{\arraystretch}{value}` to change vertical spacing
- ▶ `p{width}` for columns of fixed width `width`
- ▶ `@{code}` to replace space between columns
- ▶ `\multicolumn{value}{c}{text}` to span multiple columns
- ▶ `\cline{a-b}` for horizontal lines from column `a` to column `b`

```
\renewcommand{\arraystretch}{1.5}
\begin{tabular}{@{}ccl@{}}
\hline
\multicolumn{2}{c}{input} & output \\
command & declaration \\ \cline{1-2}
\verb+\textrm+ & \verb+\rmfamily+ & \rmfamily example text \\
\verb+\textsf+ & \verb+\sffamily+ & \sffamily example text \\
\verb+\texttt+ & \verb+\ttfamily+ & \ttfamily example text \\ \hline
\end{tabular}
```

STC

	input	output
command	declaration	
<code>\textrm</code>	<code>\rmfamily</code>	example text
<code>\textsf</code>	<code>\sffamily</code>	example text
<code>\texttt</code>	<code>\ttfamily</code>	example text

- ▶ useful extensions: `longtable` `tabularx` `booktabs`
- ▶ style advice: avoid vertical lines and double horizontal lines

Outline

1. Organisation
2. TikZ
3. Conferences
4. LaTeX
5. **Homework**

Homework Exercises for March 26

- ① Select three topics.

0