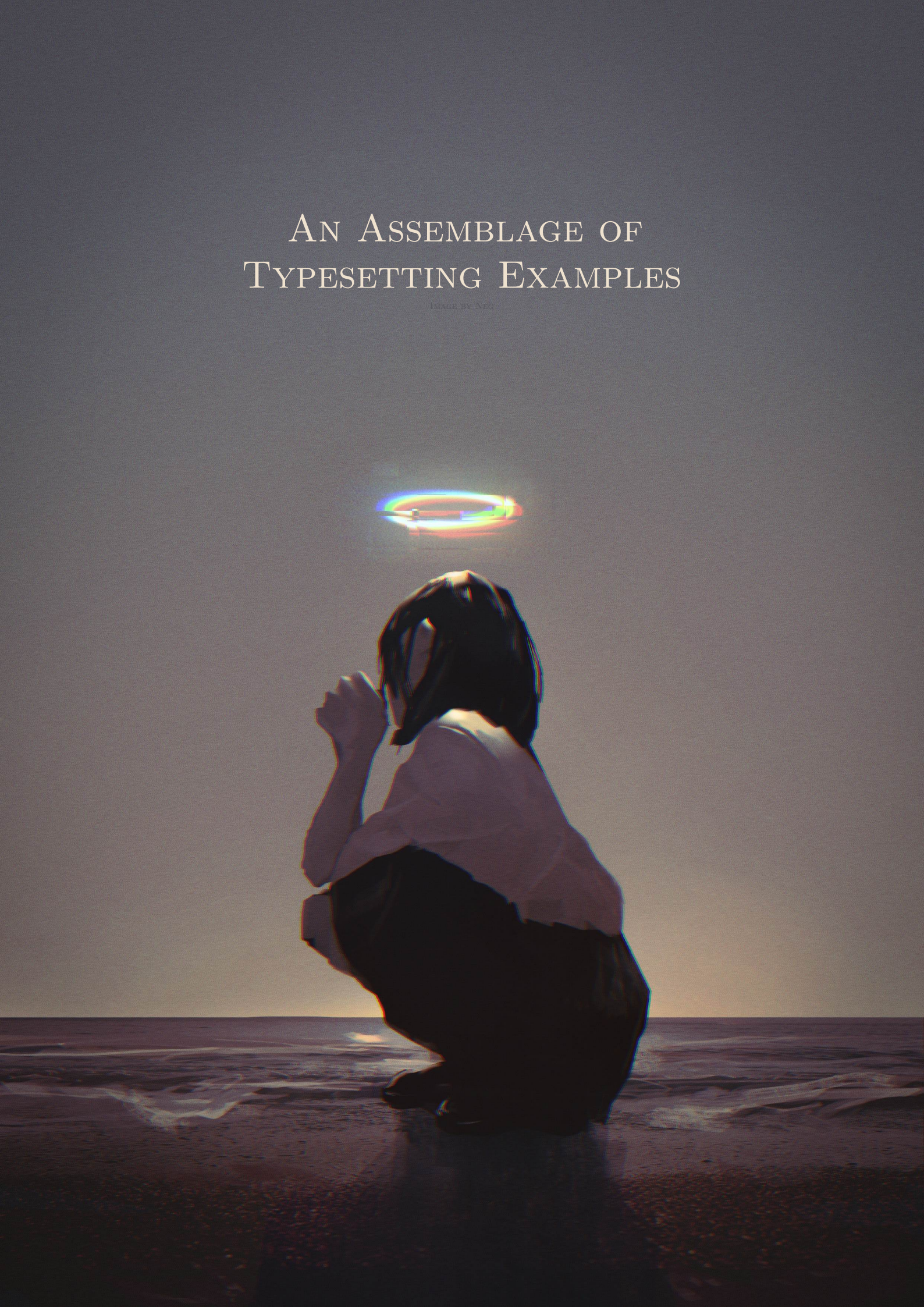
An Assemblage of Typesetting Examples



An Assemblage of Typesetting Examples

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2024-01-12

AbstReAct

Cubum autem in duos cubos, aut quadratoquadratum in duos quadratoquadratos et generaliter nullam in infinitum ultra quadratum potestatem in duos eiusdem nominis fas est dividere cuius rei demonstrationem mirabilem sane detexi. Hanc marginis exiguitas non caperet.

"A Magnum Opus of LaTeX tomfoolery."– The Authentic Newspaper

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Contents

*It would not have been possible to finish An Assemblage of Typesetting Examples a.k.a. AsTeX without the unrelenting support of F.D.C. Willard and Sleve McDichael. Many thanks!

0. Custom Templates

0.1 Lecture notes template

0.1.1 Weekly notes

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Definition: Träger

Sei $f : \mathbb{R} \to \mathbb{R}$ stetig. Der Träger von f (support) ist

$$\{x \in \mathbb{R} \mid f(x) \neq 0\} = \operatorname{supp}(f)$$

Die Fkt. f hat kompakten Träger genau dann wenn $f(x) = 0\ \forall x \in \mathbb{R}$ mit $|x| > R$, für ein $R > 0$ gross genug.

Definition: Faltung

Sei $f : \mathbb{R} \to \mathbb{R}$ stetig, und sei $\psi : \mathbb{R} \to \mathbb{R}$ stetig mit kompaktem Träger. Die Faltung von f mit ψ (convolution) ist die Funktion $\psi * f : \mathbb{R} \to \mathbb{R}$,

$$(\psi * f)(x) = \int_{-\infty}^{+\infty} \psi(x - y) f(y)\, \mathrm{d}y$$

69

Theorem

Let S, T be statements. Let " $\stackrel{\cdot}{\Longrightarrow}$ " be the (informal) *triviality* relation, i.e. $S \stackrel{\cdot}{\Longrightarrow} T$ if and only if T is trivially provable from S. Then triviality (" $\stackrel{\cdot}{\Longrightarrow}$ ") is not transitive.

0.2 Exercise sheet template

Exercise 42. *Prove the theorem given above.*

a) I saw Fermat in the elevator and he said he had a proof...

b) This exercise is left as a proof to the teaching assistant.

1 Text Stuff

The following itemized list demonstrates some standard text formatting options.

- ✓ Normal text.
- Serif text.
- **Bold text.**
- *Italic text.*
- ***Bold Italic text.***
- Small caps.
- Sans serif text.
- `Typewriter text.`
- *Slanted text.*

URLs look like this: https://oeis.org/wiki/List_of_LaTeX_mathematical_symbols. Otherwise hyperlinks are also possible. Footnotes can be done like this[1] and margin notes similarly so. In the same vein we can easily make references to figures, tables, equations and sections (e.g. for more formatting refer to section 3 containing table 4 on page 8 which specifies text and math font size commands). But generally it is possible to link directly to any word or sentence in your document. References to outside sources are citations, e.g., "LaTeX [2] is a set of macros built atop TeX [1]." We enumerate some customisation options useful in edge cases:

'Tis a left-sided margin note to admire.

1. `spa~ce` inserts an unbreakable space in 'spa ce', whereas `wo\-rd` allows 'word' to be broken.
2. Raise or lower the vertical position of individual things...
3. Do manu al keming (kerning)
4. Scale things in either dimension or change both axes:

Further, use `\verb#text#` – '`#`' being a delimiter of choice – to display LaTeX commands - including all special characters `\{}_^#&$%~` - and print them verbatim*: `\{}_^#&$%~`.

Naturally, text can be colored in as well.
Mixing colors is easy!
Making variations in saturation is a little more involved.

Selectively adapt margins, like this explanation of
`data Parser a = String -> [(a, String)]`:

> A parser for things
> is a function from strings
> to lists of pairs
> of things and strings

[1] hello, world

*Another footnote remarking on the fact that `\verb` ~~ironically~~ broke in an attempt of using it in a footnote

♢
this
song is
actually about
a grasshopper who
doesn't spend enough
time with his family because
of work, and he wears a hat and
carries a suitcase and everything, it's
like Kafka, but then he has a change
of heart and we see images of
him and his lovely wife and
children doing some-
thing together,
like gardening
or some
shit
♢

OcularNebula, Forest of Fog

2 Math Stuff

Inline math allows us to state $e^{i\pi}+1=0$ without interruption. Display math is useful for important equations etc., which may in some cases requires bigger notation, such as matrices and case distinctions.

$$1 = \det I_n = \det \begin{pmatrix} 1 & 0 & \cdots & 0 \\ 0 & 1 & & 0 \\ \vdots & & \ddots & \vdots \\ 0 & 0 & \cdots & 1 \end{pmatrix} = \det \left| \overbrace{(\delta_{ij})_{ij}}^{\in \mathbb{C}^{n\times n}} \right| \quad \text{where } \delta_{ij} := \begin{cases} 1 & \text{if } i = j \\ 0 & \text{else.} \end{cases}$$

We can refer to labeled equations, such as equation (1).
Given $\delta(P) = \max_{1\leq i\leq n}\{x_i - x_{i-1}\}$ *for some partition* $P = \{x_0, \ldots, x_n\} \subseteq I$. *The function* $f : I \to \mathbb{R}$ *is integrable iff the following limit exists:*

$$\int_a^b f(x)\,\mathrm{d}x \overset{\text{def.}}{=} \lim_{\delta(P)\to 0} \sum_{i=0}^{n} f(\xi_i)\cdot(x_i - x_{i-1}) \tag{1}$$

A single, long equation can be split as follows.

$$f(z) = \sum_{n=0}^{\infty} \frac{f^{(n)}(c)(z-c)^n}{n!} = f(c) + f'(c)(z-c) + \frac{f''(c)}{2!}(z-c)^2 + \frac{f^{(3)}(c)}{3!}(z-c)^3 + \frac{f^{(4)}(c)}{4!}(z-c)^4 + \ldots$$

Typeset aligned mathematics when several splits are necessary; It must be remarked that this is exceedingly useful. *Given* $a * \widehat{a} = e$, *consider* $\widehat{a} * a \overset{?}{=} e$.

$$\begin{aligned} \widehat{a} * a &= (\widehat{a} * a) * e && \text{Right neutral element.} \\ &= (\widehat{a} * a) * (\widehat{a} * \widehat{\widehat{a}}) && \text{Right inverse element.} \\ &= \widehat{a} * (a * (\widehat{a} * \widehat{\widehat{a}})) && \text{Associativity.} \\ &= \widehat{a} * ((a * \widehat{a}) * \widehat{\widehat{a}}) && \text{Associativity.} \\ &= \widehat{a} * (e * \widehat{\widehat{a}}) && \text{Right inverse element.} \\ &= (\widehat{a} * e) * \widehat{\widehat{a}} && \text{Associativity.} \\ &= \widehat{a} * \widehat{\widehat{a}} && \text{Right neutral element.} \\ &= e && \text{Right inverse element.} \blacksquare \end{aligned}$$

To typeset aligned things in a line use `aligned`:

$$\begin{aligned} S &\mapsto E + S \mid E \\ E &\mapsto \text{number} \mid (S) \end{aligned} \quad \Longrightarrow \quad \begin{aligned} S &\mapsto ES' \\ S' &\mapsto \epsilon \\ S' &\mapsto +S \\ E &\mapsto \text{number} \mid (S) \end{aligned}$$

Sidenote: the `matrix` environements can be viewed as specialized `arrays`:

First number	x	8
Second number	y	15
Sum	$x + y$	23
Product	$x * y$	120

Finally, other notable miscellany include

$$\sqrt[n]{xyz}\ \widetilde{xyz}\ \widehat{xyz}\ \overline{ABC}\ \underline{ABC}\ \overrightarrow{uvw}\ \overleftarrow{uvw}\ \overbrace{\alpha\beta\gamma}^{\text{hi}}\ \underbrace{\alpha\beta\gamma}_{\text{hello}}$$

& $\imath$ and $\jmath$ can be used to produce custom bedecked versions like $\hat{\imath}$ and $\vec{\jmath}$.

*Addendum. `bussproofs` can be used to typeset common proof trees.

$$\dfrac{\dfrac{\dfrac{\dfrac{}{x : \tau_1, y : \tau_2 \vdash y :: (\tau_4, \tau_3 \to \texttt{Int})}\,Var}{x : \tau_1, y : \tau_2 \vdash \textbf{snd}\ y :: \tau_3 \to \texttt{Int}}\,\textbf{snd} \quad \dfrac{}{x : \tau_1, y : \tau_2 \vdash x :: \tau_2 \to \tau_3}\,Var \quad \dfrac{}{x : \tau_1, y : \tau_2 \vdash y :: \tau_2}\,Var}{x : \tau_1, y : \tau_2 \vdash x\ y :: \tau_3}\,Abs}{x : \tau_1, y : \tau_2 \vdash (\textbf{snd}\ y)\ (x\ y) :: \texttt{Int}}\,App}{x : \tau_1, y : \tau_2 \vdash \textbf{iszero}\ ((\textbf{snd}\ y)\ (x\ y)) :: \texttt{Bool}}\,\textbf{iszero}}{x : \tau_1 \vdash \lambda y.\textbf{iszero}\ ((\textbf{snd}\ y)\ (x\ y)) :: \tau_0}\,Abs}{\vdash \lambda x.\lambda y.\textbf{iszero}\ ((\textbf{snd}\ y)\ (x\ y)) :: \tau_1 \to \tau_0}\,Abs \quad \dfrac{\dfrac{\dfrac{}{x : \tau_5 \vdash x :: (\tau_6, \tau_7)}\,Var}{x : \tau_5 \vdash \textbf{fst}\ x :: \tau_6}\,\textbf{fst}}{\vdash \lambda x.\textbf{fst}\ x :: \tau_1}\,Abs}{\vdash (\lambda x.\lambda y.\textbf{iszero}\ ((\textbf{snd}\ y)\ (x\ y)))\ (\lambda x.\textbf{fst}\ x) :: \tau_0}\,App$$

3 Table Stuff

Getting tables to look optimal is not an obvious task. Good packages require handling with care in return for professional-looking tables, the alternative being standard LaTeX tables, which look best when used sparingly. See this guide for extensive tips.

Table 1: Simple table of commands which add whitespace in text.

`"\qquad"`	x x
`"\quad"`	x x
`"\enspace"`	x x
`"\␣"`	x x
`"\;"`	x x
`"\:"`	x x
`"\,"`	x x
`""`	xx
`"\!"`	xx

The first mantra of the `booktabs` package is *"Never use vertical rules."*. We may follow this idea for ordinary, simple tabulars to make them look nice.

Table 2: Simple, clean tabular / C-lang keywords.

auto	double	int	struct
break	else	long	switch
case	enum	register	typedef
char	extern	return	union
const	float	short	unsigned
continue	for	signed	void
default	goto	sizeof	volatile
do	if	static	while

Table 3: Table combining multiple columns and rows.

		blocks	
		never	sometimes
progresses	everyone	wait-free	starvation-free
	someone	lock-free	deadlock-free

Table 4: Tables showing text- and math mode sizes.

`tiny`	Caves of Qud
`scriptsize`	Caves of Qud
`footnotesize`	Caves of Qud
`small`	Caves of Qud
`normalsize`	Caves of Qud
`large`	Caves of Qud
`Large`	Caves of Qud
`LARGE`	Caves of Qud
`huge`	Caves of Qud
`Huge`	Caves of Qud

(a) Table of some standard text sizes.

`displaystyle`	$X = \sum^{n} i$
`textstyle`	$X = \sum^{n} i$
`scriptstyle`	$X=\sum^{n} i$
`scriptscriptstyle`	$X=\sum^{n} i$

(b) Table of some standard math styles (sizes).

Table 5: Table with wrapping contents / Standard LaTeX colors.

reds	greens	blues	grayscale
red purple pink magenta violet orange brown	green lime yellow olive	blue cyan teal	black dark-gray gray lightgray

This demonstration finally makes use of the `tabularx` + `booktabs` packages.

Table 6: Number of ways to choose k elements out of a set of n.

	Ordered		Unordered	
	Repetition	Without Repetition	Without Repetition	Repetition
General	n^k	$n^{\underline{k}} := \frac{n!}{(n-k)!}$	$\binom{n}{k} := \frac{n!}{k!(n-k)!}$	$\binom{n+k-1}{k}$
Example	$5^3 = 125$	$5 \cdot 4 \cdot 3 = 60$	$\binom{5}{3} = 10$	$\binom{5+3-1}{3} = 35$

4 Image Stuff

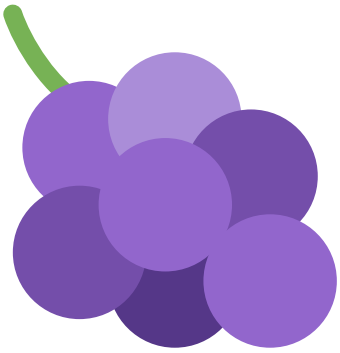
Including images in your document is easy  To reference a figure we can label it, like it is done in figure 1.

Figure 1: This is not a cake [4],
but a mere simulacrum [5].
∴ The 'cake', as it were, is a lie [6].

When the sunlight strikes raindrops in the air, they act as a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is , according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow. Throughout the centuries people have explained the rainbow in various ways. Some have accepted it as a miracle without physical explanation. To the Hebrews it was a token that there would be no more universal floods. The Greeks used to imagine that it was a sign from the gods to foretell war or heavy rain. The Norsemen considered the rainbow as a bridge over which the gods passed from earth to their home in the sky. Others have tried to explain the phenomenon physically. Aristotle thought that the rainbow was caused by reflection of the suns rays by the rain. Since then physicists have found that it is not reflection, but refraction by the raindrops which causes the rainbows. Many complicated ideas about the rainbow have been formed. The difference in the rainbow depends considerably upon the size of the drops, and the width of the colored band increases as the size of the drops increases. The actual primary rainbow observed is said to be the effect of super-imposition of a number of bows. If the red of the second bow falls upon the green of the first, the result is to give a bow with an abnormally wide yellow band, since red and green light when mixed form yellow. This is a very common type of bow, one showing mainly red and yellow, with little or no green or blue.

Claustrophobia vs. Agoraphobia.

(a) It's a potted plant!



(b) It's grapes!

Figure 2: Caption for a figure with two images.

Vector graphics saved as `.pdf` can be included as well (which allows us to use emojis 😳). Several graphics can be bundled in a single figure. Both of these things can be seen in figure 2 (containing subfigures 2a and 2b)

The rest of this page would've been blank. I'd rather have you look at this cute cat, if you don't mind:

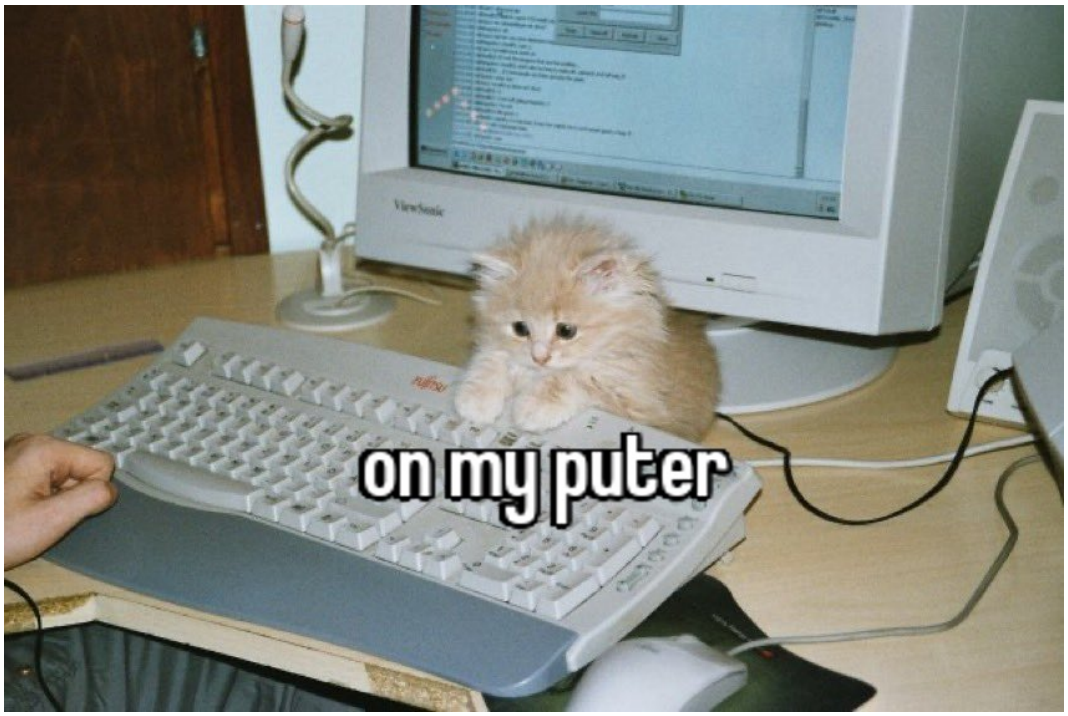


Figure 3: this cat *is* quite cute.

5 Drawing Stuff

There are several powerful packages (such as `pgfplots` 5.1 and `tikz` 5.2) which allow for drawing plots and graphs directly in your LaTeX document. It be noted how they may noticeably increase compile times.

5.1 With `pgfplots`

Some nice graphs can be drawn using the `pgfplots` package.

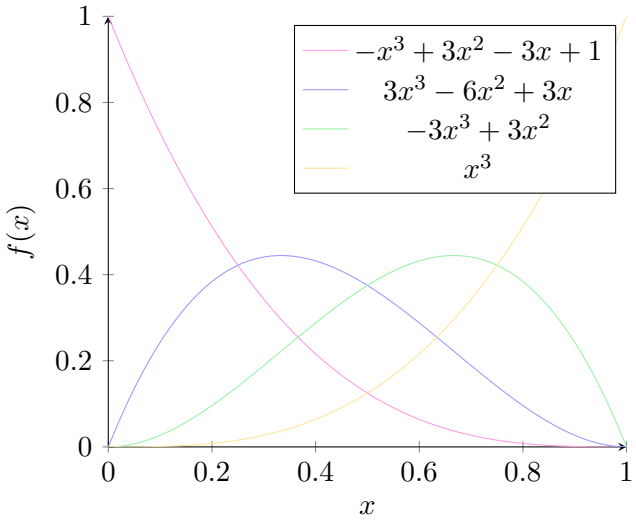


Figure 4: 2D example of Bernstein polynomials.

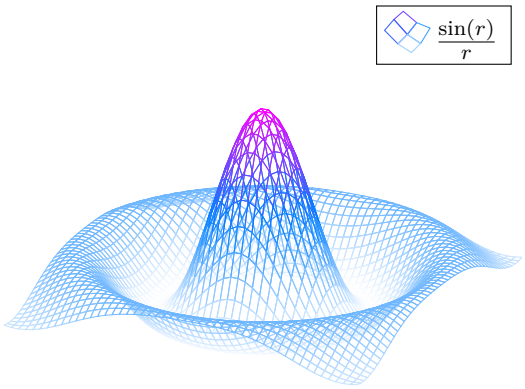


Figure 5: 3D example, using the mesh parameter.

5.2 With `tikz`

Here are some graphs drawn using Ti*k*Z. Doing this can sometimes be a little 😖 (painfully time-consuming) in my opinion, but the resulting vector graphics are quite timeless.

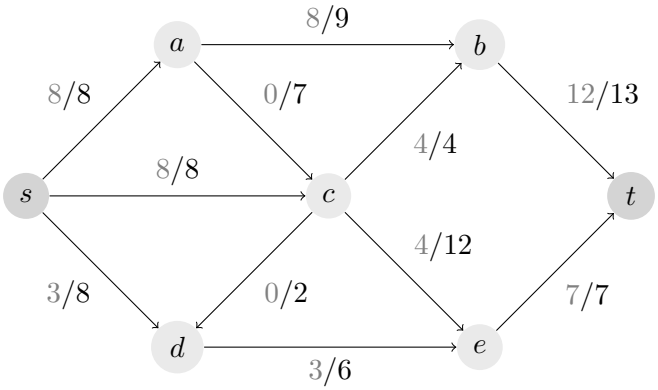


Figure 6: Graph for a flow network N.

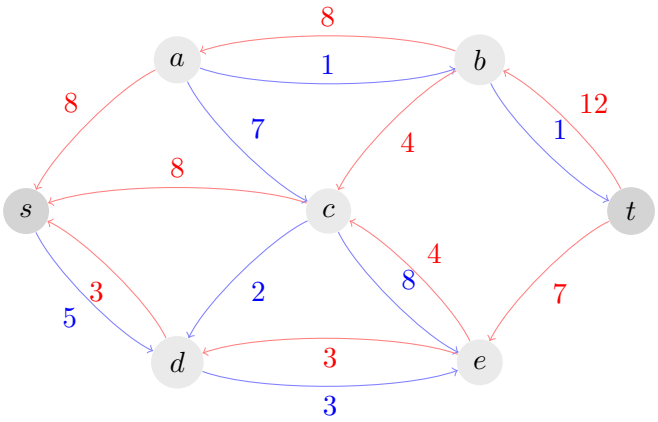


Figure 7: Residue graph for the network N.

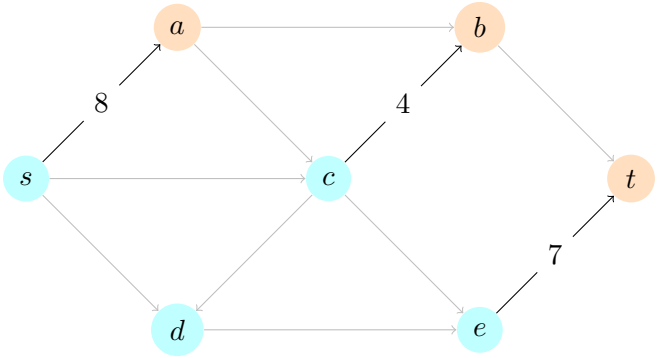


Figure 8: An s-t-cut for network N.

5.3 With tcolorbox

— *"These colorboxes are pretty nifty, thanks Dr.Dr.Sturm!"*
What follow are some examples with placeholder text inbetween.

Algorithm: Depth First Search

We could implement an iterative version of depth first search as follows

```
# The runtime of DFS is in O(|V| + |E|).
# PRE : 'graph' has method 'neighbors_of(node)'
def depth_first_search(graph, start_node):
    stack   = [start_node]
    visited = {start_node}
    while stack:
        current = stack.pop()
        for neighbor in graph.neighbors_of(current):
            if neighbor not in visited:
                stack.append(neighbor)
                visited.add(neighbor)

```

I like this player. It played well. It did not give up.

Notable thanks to xyquadrat

Equivalence Relation

Given some set A and the relation $\rho \subseteq A \times A$. We call ρ an equivalence relation on A if it fulfils the three axioms E1) - E3)

E1) Reflexivity, $\mathrm{id} \subseteq \rho \iff \forall a \in A : a \,\rho\, a$.

E2) Symmetry, $\rho = \hat{\rho} \iff \forall a, b \in A : a \,\rho\, b \leftrightarrow b \,\rho\, a$.

E3) Transitivity, $\rho^2 \subseteq \rho \iff \forall a, b, c \in A : a \,\rho\, b \wedge b \,\rho\, c \rightarrow a \,\rho\, c$.

We call ρ an order relation (or partial order) on A if it fulfils axioms E1), E3) and E4).

E4) Antisymmetry, $\rho \cap \hat{\rho} \subseteq \mathrm{id} \iff \forall a, b \in A : a \,\rho\, b \wedge b \,\rho\, a \rightarrow b = a$.

This player dreamed of sunlight and trees. Of fire and water. It dreamed it created. And it dreamed it destroyed. It dreamed it hunted, and was hunted. It dreamed of shelter.

Binomial Coefficient

The Binomial Coefficient is the coefficient of the x^k term in the polynomial expansion of the binomial power $(1+x)^n$. It can be compactly expressed as

$$ {}_nC_k = \prod_{i=1}^{k} \frac{n+1-i}{i} = \frac{n!}{k!(n-k)!} = \binom{n}{k} $$

which is usually read as "n choose k". The coefficient determines the number of ways to choose an unordered subset of k items from a fixed set of n elements. It satisfies the recurrence relation $\binom{n}{k} = \binom{n-1}{k-1} + \binom{n-1}{k}$.

Sometimes the player dreamed it was other things, in other places. Sometimes these dreams were disturbing. Sometimes very beautiful indeed. Sometimes the player woke from one dream into another, then woke from that into a third.

Let $\langle M; * \rangle$ be an algebra with carrier set M and a dyadic operation $*$ on $M \times M$. We call $\langle M; * \rangle$ a *magma* if it fulfils axiom M1).

M1) $*$ satisfies closure, $\forall a, b \in M : a * b \in M$.

And the player was a new story, never told before, written in letters of DNA. And the player was a new program, never run before, generated by a sourcecode a billion years old. And the player was a new human, never alive before, made from nothing but milk and love.

A Random Stuff

> I never said half the shit people say I did.
>
> *Albert Einstein*

WELCOME TO THIS. WHERE TYPOGRA[illegible]ONVENTIONS ARE BLASTED TO SMITHEREENS.

You're just nitpicking and biased, I win, bye bye ♡

---

suckity shillity why am i type
all of this bullshit that i have to write
i could have just copied some text from the web
lorem ipsum or whatever it says

Recall how under canonical circumstances ($\to$ cit. [3]) equation (4.2.1.1) is believed to be provable from the axioms.

$$1 + 1 \approx 2 \tag{4.2.1.1}$$

Based. on this and making use of some simple re-indexing we have the following trivial result

$$\mathit{Iq}^{\bullet}(\Lambda) = \underbrace{e^{i\pi}}_{=0} + 1 - \prod_{i=0}^{\infty}\left[\arg\ker \bigcup_{\substack{r\in\mathbb{R}^{\times}\\ \exists n:\, r=F_n}} \bigcup_{\ell\in\Lambda}\left\{\ell\circ\varphi_0 \in \mathcal{C}^{\infty} \;\middle|\; \varphi_0 \triangleq \overset{\infty}{\underset{k=1}{\text{@@}}}\zeta^{(r)}(k!!) \wedge \left(\liminf_{\chi\to 0^{-}} \varphi_0(\chi) \notin \mathbb{Q}_{\geq 0} \vee (\forall p \neq q : p \equiv_{251} \lceil(\ell\cdot F)(q)\rceil \to \operatorname{supp}(\partial\varphi_0) = \varnothing)\right)\right\}\right] + \left.\frac{7\sqrt[\varepsilon]{\pi}}{12}\right|^{\varepsilon=\sqrt{2}}$$

...what the *heeell*

«What are some of the ugliest parts of math?»

Point-set topology. Too many pathologies. Nowadays the only topologies for me are Grothendieck topologies.

Weights, in the context of Lie algebras. The constructions are highly non-canonical if not even arbitrary sometimes.

Elementary topoi. Unless you're a logician, I can't see why you would prefer them to honest-to-Grothendieck sheaf topoi (feel free to change my mind).

Classical algebraic geometry à la Weil. It was a mess (again, due to point-set topology being a pain), and not to mention very restrictive, as varieties only behave well over algebraically closed fields.

Topological vector spaces. They are not ugly per se, but extremely delicate and subtle, and daing with them can sometimes involve hours if not days trying to find the right norm on a perfectly fine algebraic object (e.g. tensor products of Banach spaces).

Tate's rigid analytic varieties and Berkovich spaces. They are practical and easy to visualise, but better to have a nice category with bad objects than a bad category of nice objects. One also needs to impose all sorts of extra finiteness conditions on them in order to be able to even begin computing their cohomologies. Luckily, these categories embed into the category of adic spaces (in the sense of Huber), which is much nicer, especially if you were to restrict down to the subcategory of perfectoid spaces.

(^ What the heck is this guy talking about)

as above
so below

"What's your Sauce Code?"

```
double a[4][4];
double b[4][4];
double c[4][4]; // set to zero
/* Multiply 4 x 4 matrices a and b */
void mmm(double *a, double *b, double *c, int n) {
  int i, j, k;
  for (i = 0; i < 4; i++)
    for (j = 0; j < 4; j++)
      for (k = 0; k < 4; k++)
        c[i*4+j] += a[i*4 + k]*b[k*4 + j];
}
// At this point, I'd like to take a moment to speak to you about the Adobe PSD
// format. PSD is not a good format. PSD is not even a bad format. Calling it
// such would be an insult to other bad formats, such as PCX or JPEG. No, PSD
// is an abysmal format. Having worked on this code for several weeks now, my
// hate for PSD has grown to a raging fire that burns with the fierce passion
// of a million suns.
//
// If there are two different ways of doing something, PSD will do both, in
// different places. It will then make up three more ways no sane human would
// think of, and do those too. PSD makes inconsistency an art form. Why, for
// instance, did it suddenly decide that *these* particular chunks should be
// aligned to four bytes, and that this alignement should *not* be included in
// the size? Other chunks in other places are either unaligned, or aligned with
// the alignment included in the size. Here, though, it is not included. Either
// one of these three behaviours would be fine. A sane format would pick one.
// PSD, of course, uses all three, and more.
//
// Trying to get data out of a PSD file is like trying to find something in the
// attic of your eccentric old uncle who died in a freak freshwater shark
// attack on his 58th birthday. That last detail may not be important for the
// purposes of the simile, but at this point I am spending a lot of time
// imagining amusing fates for the people responsible for this Rube Goldberg of
// a file format.
//
// Earlier, I tried to get a hold of the latest specs for the PSD file format.
// To do this, I had to apply to them for permission to apply to them to have
// them consider sending me this sacred tome. This would have involved faxing
// them a copy of some document or other, probably signed in blood. I can only
// imagine that they make this process so difficult because they are intensely
// ashamed of having created this abomination. I was naturally not gullible
// enough to go through with this procedure, but if I had done so, I would have
// printed out every single page of the spec, and set them all on fire. Were it
// within my power, I would gather every single copy of those specs, and launch
// them on a spaceship directly into the sun.
//
// PSD is not my favourite file format.
```

as below
so above

Vor dem Gesetz steht ein Türhüter. Zu diesem Türhüter kommt ein Mann vom Lande und bittet um Eintritt in das Gesetz. Aber der Türhüter sagt, dass er ihm jetzt den Eintritt nicht gewähren könne. Der Mann überlegt und fragt dann, ob er also später werde eintreten dürfen. Es ist möglich, sagt der Türhüter, jetzt aber nicht. Da das Tor zum Gesetz offen steht wie immer und der Türhüter beiseite tritt, bückt sich der Mann, um durch das Tor in das Innere zu sehen. Als der Türhüter das merkt, lacht er und sagt: Wenn es dich so lockt, versuche es doch trotz meines Verbotes hineinzugehen. Merke aber: Ich bin mächtig. Und ich bin nur der unterste Türhüter. Von Saal zu Saal stehen aber Türhüter, einer mächtiger als der andere. Schon den Anblick des Dritten kann nicht einmal ich mehr ertragen. Solche Schwierigkeiten hat der Mann vom Lande nicht erwartet; das Gesetz soll doch jedem und immer zugänglich sein, denkt er, aber als er jetzt den Türhüter in seinem Pelzmantel genauer ansieht, seine grosse Spitznase, den langen, dünnen, schwarzen tartarischen Bart, entschliesst er sich doch lieber zu warten, bis er die Erlaubnis zum Eintritt bekommt. Der Türhüter gibt ihm einen Schemel und lässt ihn seitwärts von der Tür sich niedersetzen. Dort sitzt er Tage und Jahre. Er macht viele Versuche eingelassen zu werden und ermüdet den Türhüter durch seine Bitten. Der Türhüter stellt öfters kleine Verhöre mit ihm an, fragt ihn über seine Heimat aus und nach vielem andern, es sind aber teilnahmslose Fragen, wie sie grosse Herren stellen, und zum Schlusse sagt er ihm immer wieder, dass er ihn noch nicht einlassen könne. Der Mann, der sich für seine Reise mit vielem ausgerüstet hat, verwendet alles, und sei es noch so wertvoll, um den Türhüter zu bestechen. Dieser nimmt zwar alles an, aber sagt dabei: Ich nehme es nur an, damit du nicht glaubst, etwas versäumt zu haben. Während der vielen Jahre beobachtet der Mann den Türhüter fast ununterbrochen. Er vergisst die andern Türhüter und dieser erste scheint ihm das einzige Hindernis für den Eintritt in das Gesetz. Er verflucht den unglücklichen Zufall, in den ersten Jahren rücksichtslos und laut, später als er alt wird, brummt er nur noch vor sich hin. Er wird kindisch und da er in dem jahrelangen Studium des Türhüters auch die Flöhe in seinem Pelzkragen erkannt hat, bittet er auch die Flöhe ihm zu helfen und den Türhüter umzustimmen. Schliesslich wird sein Augenlicht schwach und er weiss nicht, ob es um ihn wirklich dunkler wird oder ob ihn nur seine Augen täuschen. Wohl aber erkennt er jetzt im Dunkel einen Glanz, der unverlöschlich aus der Türe des Gesetzes bricht. Nun lebt er nicht mehr lange. Vor seinem Tode sammeln sich in seinem Kopfe alle Erfahrungen der ganzen Zeit zu einer Frage, die er bisher an den Türhüter noch nicht gestellt hat. Er winkt ihm zu, da er seinen erstarrenden Körper nicht mehr aufrichten kann. Der Türhüter muss sich tief zu ihm hinunterneigen, denn der Grössenunterschied hat sich sehr zu ungunsten des Mannes verändert. Was willst du denn jetzt noch wissen? fragt der Türhüter, du bist unersättlich. Alle streben doch nach dem Gesetz, sagt der Mann, wieso kommt es, dass in den vielen Jahren niemand ausser mir Einlass verlangt hat? Der Türhüter erkennt, dass der Mann schon an seinem Ende ist und, um sein vergehendes Gehör noch zu erreichen, brüllt er ihn an: Hier konnte niemand sonst Einlass erhalten, denn dieser Eingang war nur für dich bestimmt. Ich gehe jetzt und schliesse ihn.

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“Falls du Schreibfehler findest, darfst du diese selbstverständlich gerne behalten.”