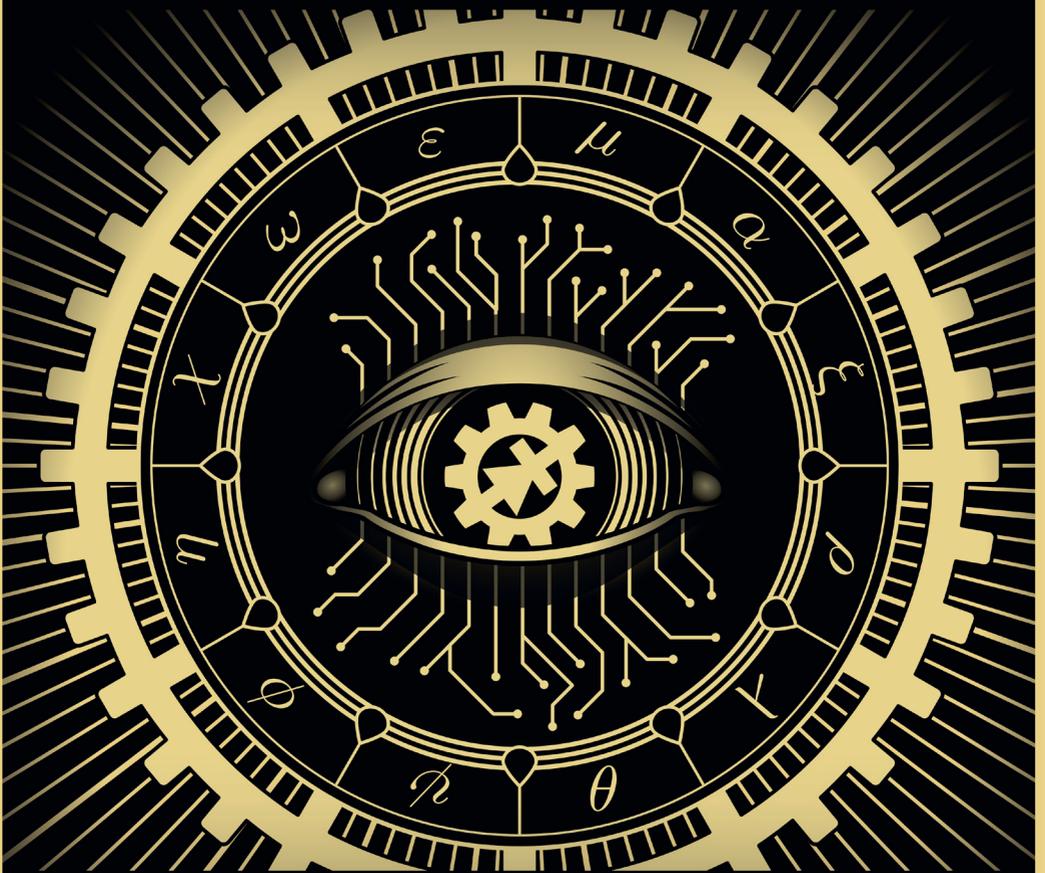


# blitz

02 | 21.10 | 2024

Fachzeitschrift des amiv an der ETH



• • • Esoterik • • •

# Editorial: purple crystals and lots of candles



Andreas Hirsch

praesident@amiv.ethz.ch

Bonjour mes amis,

Aujourd'hui c'est le jour de fête because the newest edition of blitz has been printed!!! Coming in strong, we have the liveliest topic of the semester: «Ésotérisme»

In this Edition, the new board of amiv will introduce themselves, but most importantly, blitz has a new treasurer: Konstantin!

Konstantin for reference:



While writing this editorial, I was pondering and thinking about how we, the most academic journal of ETH, can inform you

about «Ésotérisme».

And then it hit me: Wizards such as Alex Schoch and Gandalf are renowned for their Orbs, Crystals and of course FIRE!!! This makes them perfect to inform you, «l'interrogateur» about the wonders of this world.

Fire for reference:



So, to quote the 2 previously mentioned, famous Wizards:

«A wizard is never late, Frodo Baggins. Nor is he early; he arrives precisely when he means to.»

«You shall not pass!»

«Lass mal lecker bierschen trinkn»

This Edition also covers the wide aspects of ETH: We have more grades, Science in Perspective, the 7 Dwarves and of course how to make your own crystals along the usual. In other words: Enjoy!!

# Presidential Column

Sonja Merkle

praesident@amiv.ethz.ch



Hello Everyone!!

My name is Sonja<sup>1</sup> and I am very excited to tackle the challenge of taking over the position from Julie as this year's amiv-President.

Wow, the last two weeks passed quicker than a step response signal. So what happened? After the GV, the new board was able to celebrate at the ESF. The amiv Bar (UrAnus) was a complete success.



Thank you, Nicolai & Johnny for organizing!

The following week we kicked off our first board meeting with our VSETH-Götti, Sina, and took some new photos for the amiv-Website.



*You want to participate in cool meetings too? Consider becoming a board member!*

Then many of us joined the first amiv-Beermile (as participants and supporters). But no one stood a chance against Pepe, who summoned his inner Sonic and came in first with an unbelievable time of 7:15. Tomorrow, the amiv KONTAKT is coming up. Since you're reading this in the future, I'll assume the OK did an amazing job, as always, and everything went smoothly.

Now, to the question I've had to answer and defend the most since the GV: What is my goal as amiv President this year? It's raising awareness for beer- and alcohol-free events. Do not get me wrong - I love the Beer and Drinking Events<sup>2</sup>. I just feel that lots of freshers and people 'from the outside' in general have the perception that 'Beer and Sausages' is the only thing amiv can do<sup>3</sup>. And that's definitely not true! amiv offers a variety of alcohol-free events, and I am not just talking about KONTAKT, the industry talks, and excursions. I am referring to Laser Tag, GoKart, amiv goes Wellness/Opera/theater, and many more!

I believe some people feel they have to consume excessive amounts of beer to participate in amiv events, and as a result, we may be losing many potential active members. Not to mention, a less «Bier-und-Sauf-Verein» image would likely attract more sponsors, creating opportunities for even more exciting events! So just to summarize, because somehow people only hear ‘Sonja wants to fight against the beer’: NO. I never wanted to abolish beer events. I just want to raise awareness about the alcohol-free events, making amiv more approachable and attractive to everyone.

With that out of the way, I am really looking forward to an eventful semester with the new board and you!

Please do not hesitate to contact me anytime if you have any questions, suggestions, concerns, or just want to yap!

See you later, oscillator! Sonja

- 
1. You can read more about me and the board on page 12 and following.
  2. Fun fact: I organized the very first Leberschuss tournament and ordered the personalized amiv mats.
  3. Ask your fellow students in a lecture what they associate with amiv. Most will probably say: beer and drinking beer

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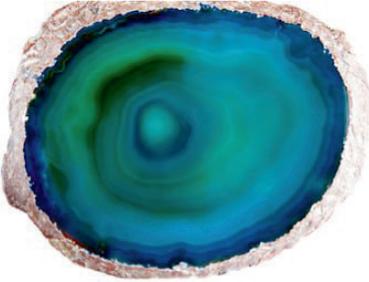
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## «Esoterik»

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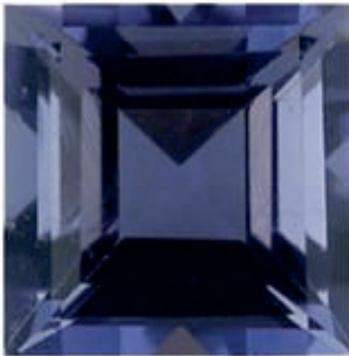
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Der **blitz** ist die Fachzeitschrift des amiv an der ETH, welcher mehr als 4000 Mitglieder hat. Er erscheint jeden zweiten Dienstag, Autor:innen können ihre Artikel bis zum Redaktionsschluss über [artikel@blitz.ethz.ch](mailto:artikel@blitz.ethz.ch) einreichen.



Der **amiv** ist der Fachverein der Studierenden der Departemente Maschinenbau und Verfahrenstechnik (D-MAVT) sowie Informationstechnologie und Elektrotechnik (D-ITET) an der ETH Zürich.



Der amiv gehört zum **VSETH**, dem Verband der Studierenden an der ETH.

Unsere nächsten Ausgaben:

#	Thema	Red.Schluss	Publikation
03	pV = nRT + AI	23.10.2023	04.11.2023
04	Frauenblitz	06.11.2023	18.11.2023
05	blitz, ledig, sucht	20.11.2023	02.12.2023
06	2broke2blitz	04.12.2023	16.12.2023

58. Jahrgang // Auflage: 1100  
<https://blitz.ethz.ch/>



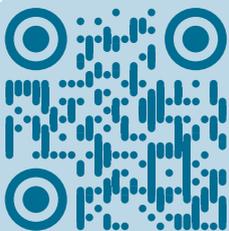
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# Science in Perspective - Die Hummel und die Holzkugel

Roman Dautzenberg

roman@blitz.ethz.ch

*Wird uns in «Wissenschaft im Kontext» das Richtige beigebracht? I GESS not, darum stellen wir in dieser Serie wirklich relevante Forschung vor.*

Woher kommt das Leben? Wie lassen sich Quantenmechanik und die allgemeine Relativitätstheorie vereinen? Können Hummeln spielen? Das 2022 erschienene Paper «Do bumble bees play?» versucht sich an einer dieser drei Fragen<sup>1</sup>.

Im ersten Versuch liegen Holzkugeln entlang des Weges zwischen Nest und Nahrungsquelle. Statt direkt zur Nahrungsquelle zu gehen, haben sich alle Hummeln entschieden, zwischendurch die Holzkugeln herumzurollen. Dabei haben männliche Hummeln länger gespielt als weibliche, und jüngere Hummeln öfter als ältere. Das weckt Ähnlichkeiten zum Spielverhalten bei Vögeln und Säugtieren.



Fig. 2: Die Hummeln haben kleine Tracker zur Identifikation auf dem Rücken.

Im zweiten Versuchsaufbau konnten die Hummeln aussuchen, ob sie durch einen Raum mit oder ohne Kugeln zur Nahrungsquelle gelangen wollen. Die beiden Räume haben unterschiedliche Farben und sind im zweiten Teil des Experiments leer,

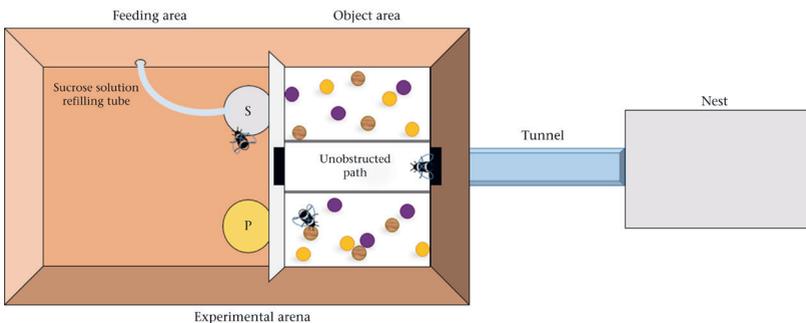


Fig. 1: Versuchsaufbau um die Spontaneität und die Nicht-Überlebenswichtigkeit des Kugelrollens zu beobachten

was die Hummel aber nicht weiss. Trotzdem geht die Hummel meistens in den Raum, in dem sie die Kugeln vermutet.

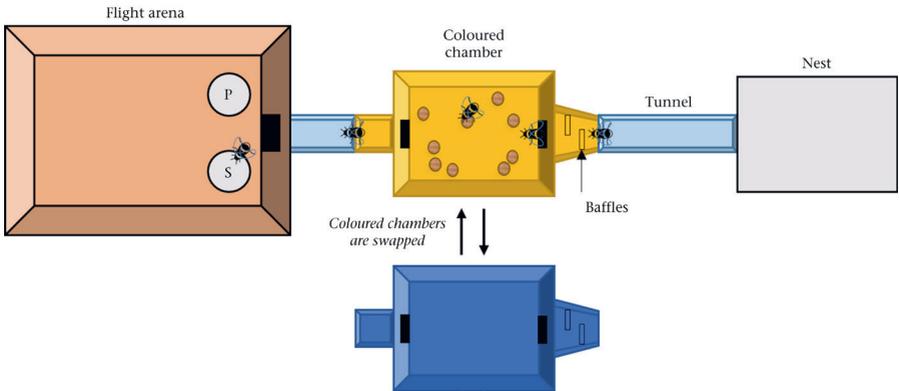


Fig. 3a: Versuchsaufbau für das Erlernen des Zusammenhangs zwischen Raumfarbe und Kugeln.

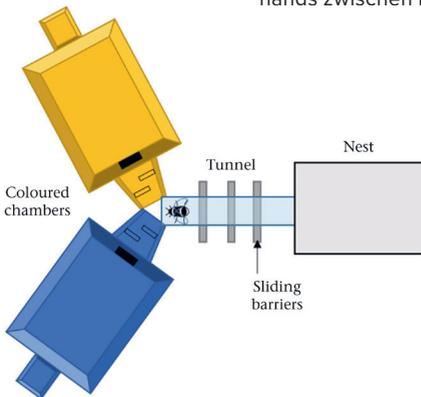


Fig. 3b: Versuchsaufbau um den belohnenden Charakter des Kugelrollens zu bestimmen.

«Holzkugelrollen» ist damit eine belohnende, spontane und nicht-überlebenswichtige Aktivität für Hummeln. Das ist zum einen relevant, da es zeigt, dass auch Insekten spielen, zum anderen ist es für mich persönlich spannend. Als Unterstützer mehrerer schwächelnder Fussballvereine bin ich bereits am Scouting, was die Hummeln können - das Level ist für manche Spieler bereits eine Challenge.



Fig. 4: Kein Kommentar.

1. Galpayage Dona et al., 2022

# DIY Crystals

schüli

*Since ETH is renowned for its hands-on BSc programs, particularly in mechanical and electrical engineering, blitz provides you with the opportunity to become a scientist in the comfort of your own home. With blitz, you can engage in practical, experiment-driven learning, bringing the excitement of discovery and innovation right to your doorstep*

In this experiment, we try to create our own salt crystals. It is recommended for kids above three. So if you are younger, please skip this article.

You need:

- salt
- hot water (boiling)
- two glasses of the same size
- long and thick yarn (the same length as the depth of the glasses)
- pen (or something similar)
- if you want colored crystals: food coloring

What you have to do:

1. Fill one of the glasses with hot water. Please be careful, hot water can cause burns.
2. Add salt to the water. Stir with a spoon as you add the salt, so it dissolves into the water. Continue until the water is saturated with salt. You can tell this has happened when the salt no longer dissolves and starts to sink to the bottom.
3. Pour the saturated saltwater into the se-

cond glass, leaving the undissolved salt in the first glass. Be careful, the water may still be hot. If you want colored crystals, add food coloring now.

4. Attach the yarn to the pen (or something similar). Hang the yarn into the saltwater and rest the pen on top of the glass.
5. Place the glass with the saltwater and yarn on a windowsill or another sunny spot.
6. Now we wait until the crystals become visible. This can take up to several weeks. It's important that you don't move the glass during this time—just be patient.

As the water cools, it can dissolve less salt than when it's warm. Additionally, the water evaporates over time, and with less water, less salt can remain dissolved. The excess salt will deposit on the yarn, and crystals will slowly form.

If you use food coloring in your experiment, be aware of the meaning behind the colors. You may get exactly what you're asking for.

# Crystal Color Meanings

**Black** provide healing, stability and protection

**White** purify you of negative energies

**Red** provide energy and strength

**Green** can help you calm down

**Yellow** inspire optimism and provide joy

**Pink** provide love and compassion

**Blue** help you achieve patience or sensitivity

**Purple** bring balance, inspiration, intuition

## Sudoku

7		9			1		
2	4	9					
				4	8	2	9
1							5
			6	9	3		
		4	5		2		6
3					7	5	1
	7			1		9	3
9			5		8		

Sudoku einfach

	8		5		1	6	
2						8	3
							4
8				9			5
		5					
		6			3	2	
							2
		9	1		5	7	
			9	6			

Sudoku schwer

# Introducing: The new Board Members of



Sonja Merkle — President



**They call me:** Sonja

**I study...** mechanical engineering, 7th bachelor semester

**Favorite AMIV Event:** Obv all AMIV Events are great! (But if I really had to choose:

AMIVondue, Leberschuss-Tournament, Weekends)

**Contact me if...** you have cake you'd like to share (Coffee will be on me).

**You will meet me...** on the go, stumbling over smth.

**What I learned/studied most during my time at ETH:** Yes. :.)

Everything... **makes me cry.** I cry internally 24/7 (no worries, sometimes because of laughing too)

**Favorite Drink:** (Turbo-) Mate

**My plans for AMIV this semester:** Raising awareness for the Beerfree Events (NOT canceling Beer/alcohol Events!!!) and things you can do at AMIV! You don't have to enjoy or drink beer (or alcohol) to be part of the best student association around town!

**AMIV in one sentence:** How the hell does everything always work out in the end?!

**Favorite Song:** Difficult to answer. 'Us and Them by Pink Floyd' is an all time favorite. If you are interested in my take on music, feel free to check out the 'Musik der Ausgabe' in the Blitz-Issues last semester ;) Maybe future issues too!

**Fun-Fact about me:** Despite being involved with AMIV for quite some time now, I still couldn't befriend the taste of beer. Just why?!



Jakob Lüdke — Treasurer



**They call me:** Jake, J-drizzle

**I study...** Mechanical Engineering, 7th semester BA

**Favorite AMIV Event:** Semester End Event in Summer/ Bad food tasting

**Contact me if...** You need money or need life advice. Probably won't give it to you in time, but you can try.

**You will meet me in...** One of 3 spots:

- Playing Volleyball
- Working on my bachelor thesis while bankrupting my lab
- Working in the byro trying not to bankrupt the AMIV.

**What I learned/studied most during my time at ETH:** Free time is not something you have, but something you have to take/ I do not enjoy tasty food

**This makes me cry:** CUDA driver installation/ good food

**Favorite Drink:** Sternburg Export Bier (aka waste water)/ bad beer

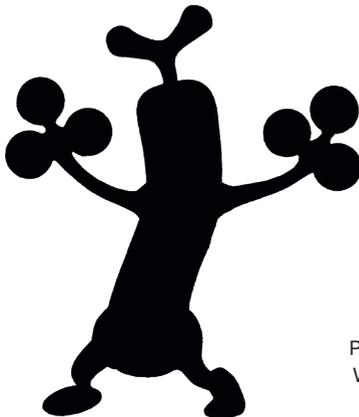
**Favourite Song:** jeremiah.fr-where my perc at? 808s (major phonk enjoyer)

**Fun-Fact about me:** I once took coca leaves from South America to Germany in my hand luggage without any problems.



**Anmerkung Redaktion:** Wann Geld?

---



Pokémonrätsel  
Who's that ???

## Joël Gmür – Infra



They call me: Joel

I study... Mechanical engineering in 7th bsc sem

Favorite AMIV Event: Amiv goes christmas hands down

Contact me if... The beermachine is empty and you want to help fill it ;)

You will meet me... in the hallways carrying stuff around

What I learned/studied most during my time at ETH: time management, foosball and how to sing «angels», such that people think you know the lyrics

What makes me cry: american city planning, cutting onions and people not returning empty bottles

Favorite Drink: El tony's that are cracked 0.05 seconds after the exam started and the first Hopfentorpedo after its over

My plans for AMIV this semester: business as usual but maybe slightly better

Favorite Song: Thomas the tank engine x Bangarang remix, but specifically played at any AMIV-weekend for 2 hours straight whilst serving dinner.

AMIV in one sentence: send it, but professionally

Fun-Fact about me: I run on hot sauce, katy perry and dad-jokes



## Kelvin Williams – External Relations



They call me: Kelv, k11(kelf), Fahrenheit, T (pick however many)

I study... Mechanical Engineering 3. Sem

Favorite AMIV Event: Skiweekend, Beermile, nakedthings

Contact me for... sponsors for your Events.

You will meet me... at some brainless amiv beer event (beermile, leberschussturnier, nakedthings).

What I learned/studied most during my time at ETH: minimal effort, maximal output

What makes me cry: mystudies (pls include this one), pants

Favorite Drink: Vodka Mate/ Trojka Green



## Hejwan Reshid — Info



**They call me:** Heshy

**I study...** Mechanical Engineering in my 3rd semester

**Favorite AMIV Event:** Fondue night

**What makes me cry:** romcoms/ hampter

**Favorite Drink:** hot chocolate

**Fun-Fact about me:** pepsi > cola >

**Contact me for...** anything or if you think you can bet me in smash.

**You will meet me...** somewhere probably listening to music and hungry

**What I learned/studied most during my time at ETH:** tried my best with a hair care

**My plans for AMIV this semester:** to reply to all mails with a high standard of professionalism: [info@amiv](mailto:info@amiv)

**AMIV in one sentence:** Can you fill up the beer vending machine?

**Favorite Song:** untitled 08 | 09.06.2014.- kendrick



## Samuel Sutanto —

External Relations



**They call me:** Sam

**I study...** Msc Mechanical Engineering, 1st Semester

**Favorite AMIV Event:** Cocktail Night

**Contact me if...** You need connections in the industry or a good cocktail ;D

**You will meet me...** in my mailbox & late at amiv events in a suit

**What I learned/studied most during my time at ETH:** How to not get a caffeine overdose (I have the best method)

**What makes me cry:** Thermodynamics and bad accountants

**Favorite Drink:** Amaretto Sour

**My plans for AMIV this semester:** Get amiv more money + eat it all away

**Favorite Song:** Anything Hardstyle or Phonk

**Fun-Fact about me:** I have betrayed ETH by working in finance (6'5, blue eyes)



## Zoe Hemmeter – Kultur



**They call me:** Zoe, Günther

**I study...** Mechanical Engineering

**Favorite AMIV Event:** Cocktailnight

**Favorite Drink:** Espresso Martini

**Contact me if...** you have any fun (stupid) event ideas or want to help making daily life at ETH more fun.

**Favourite Song:** Alles ist relativ

**You will meet me...** heating my own food in the microwave even though I could have had free food from AMIV

**What I learned/studied most during my time at ETH:** it's a lot more efficient watching the lectures online with 1.75 speed / 1837 victorian child

**This makes me cry:** That Alumni Pavillon is never free for Cocktailnight

**Fun-Fact about me:** I have a really cool car lighter

**My plans for AMIV this semester:** lot's of fun and cool events/ onyon

**AMIV in one sentence:** very very random (but lots of nice people <3)



## Noah Giger – Kultur



**I study...** Maschinenbau im 3 1/2 Semester

**Favorite AMIV Event:** 24HERTZ

**Favorite Drink:** Sumpfwasser from Coop

**Contact me if...** you find my mugs that disappeared from the byro :(

**Favourite Song:** Outfit Check (prod. Bar-ré)- Ritter Lean

**You will meet me...** either in Dübendorf building Rockets or Bouldering

**What I learned most during my time at ETH:** Lernplätze @ Zentrum are just as rare as Steckdosen in Einstein

**Fun-Fact about me:** I'm not a natural Ginger

**My plans for AMIV this semester:** Clounteract the presidency's call to move AMIV away from being a «Bier und Wurstverein»

**AMIV in one sentence:** Akademischer Bier und Wurst Verein



## Penelope Paasch – Kultur



**They call me:** Penelope or Pen, among others, but the one I like the most is Agent P

**I study...** Mechanical Engineering (third semester)

**Favorite AMIV Event:** Erstiweekend, because it's full of new encounters

**Favorite Drink:** Drink more water, it's good for you

**Contact me if...** you have any banging event ideas for the semester (anm. Red. *sus*)

**Favourite Song:** at the moment, Sparring Partner by Paolo Conte, MacArthur Park the Donna Summer version, Giorgio by Moroder from Daft Punk; I advise you to check out my Spotify account for further information

**You will most likely meet me...** in lectures or exercise groups (or maybe not); but you should really just write, I won't bite

**What I learned/studied most during my time at ETH:** ~~caffeinated drinks are an extremely useful~~; more than you might think, I won't bite

**This makes me cry:** The ending of the film Cinema Paradiso always makes me cry

**Fun-Fact about me:** I'm a big cinema geek. Go watch my favorite movie: L'itinéraire d'un Enfant gâté, and then come back thanking me for one of the greatest cinematic experiences ever. Tip: Switch of your phones; the world is already filled with those.

**My plans for AMIV this semester:** To add a little French (anm. Red. *sus*) touch to the AMIV and, of course, to ensure everyone has a dash of tons more fun during those challenging studies of ours

**AMIV in one sentence:** Good vibes, great times



## Maximilian Hoh — HoPo ITET

They call me: Max Hoh

I study... Electrical Engineering, 5. Semester

Favorite AMIV Event: Hertz and company visits

Favorite Drink: Migros Ice Tea Zitronen

Favorite Munich Beer: Giesinger

Contact me if... you need help from Hopo ITET or if you need sudokus

Favourite Song: Rick Astley, Never gonna give you up

What I learned most during my time at ETH: how to draw bode plots

What I not learned yet during my time at ETH: speaking swiss german, onions

This makes me cry: when the frisbee-machine is empty

Fun-Fact about me: Before ETH i did an apprenticeship as Industrial Electronics Technician/ onions

My plans for AMIV this semester: continuing the good work of Hopo ITET and establishing more events by Hopo

AMIV in one sentence: 50% Beer, 49% serious Stuff, 1% onions



## Valentin Marxt — HoPo MAVT

They call me: VALEEEE

I study... Mechanical Engineering in my second year

Favorite AMIV Event: Poker Night, losing in the first round is always top-notch

This makes me cry: Ilia's stupidity

Favorite Drink: Anything but beer

You will most likely meet me... in CAB playing pool.

Contact me if... you need help with chemistry. I'm running the study center every Wednesday evening between six and eight in ETA F5.

Favourite Song: Children of the Sky by Imagine Dragons

What I learned/studied most during my time at ETH: Create time.

Fun-Fact about me: Went into the 12° Davoser lake at my Erstiweekend.

My plans for AMIV this semester: Insanity is doing the same thing over and over and expecting different results. May I just say that my plan is insanity?

AMIV in one sentence: Make ETH liveable!



## Johannes Zumthurm — IT



**They call me:** Zumi/Thurm

**I study...** Elektrotechnik 7. Semester

**Favorite AMIV Event:** Coding Weekend, that's how I started.

**Favorite Drink:** Gin Soda with pepper

**My plans for AMIV this semester:** Proxmox!

**Contact me if...** you want to join the IT Team.

**Favourite Song:** Rip & Tear

**You will meet me...** in the Serverroom restarting Servers, listening to the Doom Sound-track.

**What I learned/studied most during my time at ETH:** You learn more in the AMIV IT than in your studies.

**This makes me cry:** Mixing good whiskey with cola

**AMIV in one sentence:** Good alternative to studying



## Michael Stambach — IT



**I study...** Electrical Engineering, Bachelor, 3rd Semester

**Favorite AMIV Event:** Coding Weekend, it is always impressive how much can be achieved in one weekend.

**Favorite Drink:** Mate when coding, beer when it's free.

**Contact me if...** you want to add a new feature to one of the AMIV tools

**You will find me...** In the Büro trying to figure out why one of our services has stopped working.

**What I learned most during my time at ETH:** You don't always have to understand everything.

**This makes me cry:** Devices with Candy Crush pre-installed

**My plans for AMIV this semester:** Rewrite some older tools that have been written years ago and nobody understands anymore.

**AMIV in one sentence:** There is always something happening somewhere.



# Book of the Edition

## Siddhartha - Herman Hesse

Julia Holenstein

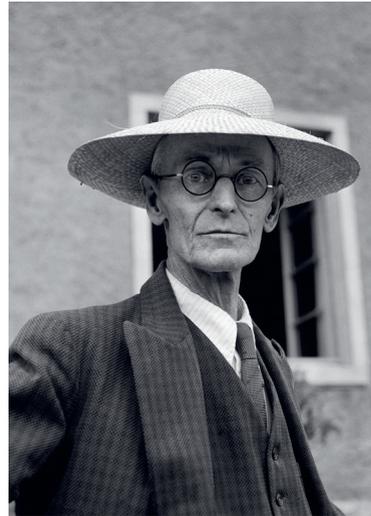
julia@blitz.ethz.ch

*I think I am not the only one when I say that I hated reading Herman Hesse in school. Yes, yes, famous German author and so on, but I am usually not a big fan of someone stretching their sentences over a whole page without making a point. Still, I was convinced to read Siddhartha, and I was pleasantly surprised..*

*Siddhartha. An Indian Novel* is set in (who would have thought) India. It was published in 1922 but is set in the year 600 BC. The story follows a young Brahmin<sup>1</sup> called Siddhartha and his friend Govinda. Together, they are on a journey to find spiritual enlightenment. Siddhartha's name is made up of two Sanskrit words: *siddha*, meaning achieved, and *artha*, meaning what was searched for. Thus, together, Siddhartha means he who has attained his goals.

Hermann Hesse himself is half German, half (French) Swiss. His parents were evangelical missionaries, and were working in India. Hesse has written his first story, a fairy tale called *The Two Brothers* at the age of ten. It was published in 1951. After having a difficult time in various schools and becoming depressed at 14, he started working in a bookshop that specialized in theology, philology, and law. He began writing more poems and prose collections, although they were not all too successful, and his mother disapproved of them since they were 'too secular' and 'va-

guely sinful'. His first novel to achieve some kind of success (although only in Germany) was *Peter Camenzind* in 1904 and Hesse finally could make a living out of writing. He married his wife when her father was away for a weekend (he disapproved of their relationship) and in the next few years published *Beneath the Wheel* and other novels. In this time, Hesse started to discover his interest in India and Buddhism.



Hermann Hesse, German-Swiss poet and painter, and looks like a very nice Grandpa



Hesse at a younger age

Let's skip a few years: there's WW1, Hesse writes for NZZ, Hesse leaves his wife (parents always know best after all), WW1 is over and Hesse moves alone to Ticino. He published *Siddhartha* to show his love for Indian culture as well as Buddhist philosophy. He went on to write multiple more well-known novels, like *Steppenwolf* (1927) and *Narcissus and Goldmund* (1930). WW2 started and Hesse tried to resist the Nazi ideology by only reviewing works of banned Jewish authors, like Kafka, which eventually led to his own works being banned. But also this time period passed and in 1962, Hermann Hesse died a natural death at age 85, after pursuing his passion for watercolor drawings in the last couple of years of his life.

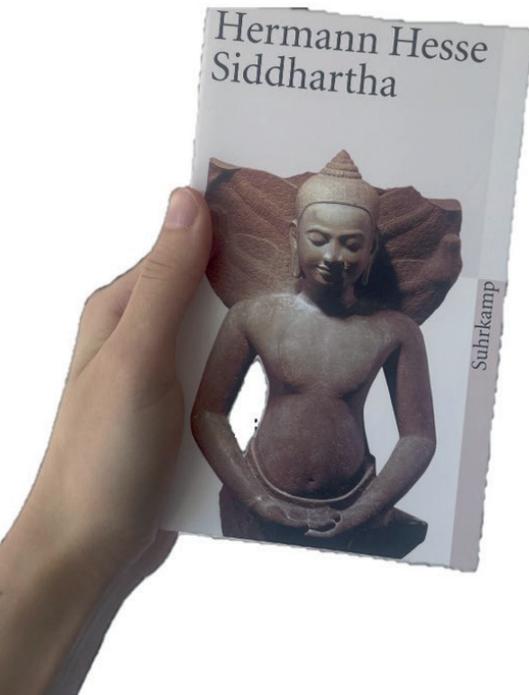
When Hesse died, he was still not very

well known across the sea, despite his literary success in Europe. But when the hippie movement started to break through in the 60s, Hesse's works, especially those that deal with the quest for enlightenment (e.g., *Siddhartha*), started to become more and more popular. Today, *Siddhartha* is one of the most popular novels from the West set in India.

Hopefully, not too many readers have been bored off with this small history lesson, and we can move on to the plot. *Siddhartha* decides that he wants to gain spiritual illumination by becoming a Samana. He leaves everything behind and becomes homeless with no possessions, only being joined by his best friend Govinda. They seek out the Buddha to speak to him personally, and while Govinda joins the Buddha's order, *Siddhartha* decides to find enlightenment alone since, in his opinion, the Buddhist philosophy must be realized alone without any teacher. He goes on and meets a beautiful courtesan, but she tells *Siddhartha* that she will only teach him the art of love if he becomes wealthy again. Thus, he becomes rich again and the courtesan's lover. It took him a couple more years to notice that his life now again lacks spiritual fulfillment, and *Siddhartha* once again leaves his life behind. Close to a river, he falls into a meditative sleep and discovers the holy word Om. The next morning, he decides to live the rest of his life close to this 'spiritually inspirational' river and starts a humble life as a ferryman, together with the elderly fer-

ryman who tells him that the river has many voices and significant messages, if only one listens. Years later, the courtesan, now a Buddhist convert, travels close to the river but is bitten by a venomous snake. As Siddhartha tries to help her, she reveals that the boy with her is Siddhartha's son before dying of the snake's venom. Siddhartha raises the boy until also his son leaves to find spiritual illumination. During this time, news starts to spread about an enlightened ferryman, and Govinda, now a Buddhist monk, travels to the river to meet him. He did not initially recognize his childhood friend, not until Siddhartha asked him to kiss his forehead and Govinda was able to experience the same visions as Siddhartha has.

Although this may sound like a lot, the book itself is not too long and, contrary to other experiences I have had with Hesse, is easy to read and understandable. Hermann Hesse tries to show the totality of conscious events of a human life, and how to approach the understanding of reality and attain enlightenment. I also like to think that Hesse shows that there is not a one-way-fits-all rule when it comes to enlightenment and religion. Siddhartha and Govinda both successfully accomplished the quest of finding spiritual enlightenment, although choosing different paths. Siddhartha is the fictive life story of the Buddha, a legend about self-liberation from family and society to achieve a self-determined life. Hesse wants to show that enlightenment is not something you teach, but something you have to achieve on your own.



1. Members of the highest caste (Varna) in the Indian caste system.



# Bier der Ausgabe

## Featuring a language confused country

Henriette Grënchels

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*Ein bekannter Luxemburgischer Esoteriker sagte einst, er sei mit 5, 6 Jahren zum Wirt und hätte poulriicht en Humpen geknuppt (Stock gerade Humpen weggesoffen)(1). Ich bin zwar nicht mehr 6 aber heute knuppe ich trotzdem einen Humpen aus dem kleinen Nachbarland der Schweiz<sup>1</sup>.*

Als ich das Ausgabenthema bei ChatGPT eingegeben habe, kam zurück: «Esoterisches Wissen impliziert oft, dass die Wahrheiten und Lehren nicht für jedermann bestimmt sind, sondern ein gewisses Mass an Einweihung oder Verständnis erfordern, um sie vollständig zu erfassen».

Also ein bisschen wie die Luxemburger Kultur. Mit 600 000 Einwohnern ist der Kreis der Eingeweihten doch relativ überschaubar. Heute ändern wir das ein bisschen. Ich sitze also gerade mit einer illustren Runde in meiner kleinen Burg (Jeder in Luxemburg hat eine eigene Burg) und lasse den Kronkorken des Clausel Monk ploppen. Während die Flaschen ploppen denken wir alle an unseren Landsmann Jean Claude Juncker, den ehemaligen EU Kommissionspräsidenten, dem man nachsagt, ihn jederzeit bei einem Glas Bier in seiner Stammkneipe in Steinfort antreffen zu können<sup>2</sup>. Anschliessend prosten wir dem Luxemburgischen Grossherzog Henri zu, welcher uns aus einem Bilderrahmen an der Wand anlächelt(2).

**Santé!**

Da die meisten nach dem Umtrunk noch mit dem Auto nach Hause müssen, meist in eines der Nachbarländer, weil sich Wohnraum in Luxemburg niemand mehr leisten kann, wollen wir es heute bei einem Sixpack Bier pro Person belassen<sup>3</sup>. Mal schauen, ob das klappt<sup>4</sup>.



Gebraut wurde das «bière d'abbaye» in der Unterstadt der Stadt Luxemburg. Übertröhnt von grossherzoglichem Palais, EU Institutionen, Schweizer und internationalen Grossbanken, wird hier mit frischem Alzette Wasser ein Elixier der Braukunst geschaffen (3). Die Letzebuerger Stad Brauerei Clausel gibt es seit 2007, doch der Ort der Brauerei ist nah an den Ursprüngen des Bieres in Luxemburg. Nicht weit entfernt brauten um 1500 herum die Benediktiner Mönche das erste Bier(4), daher auch der name monk. Angelehnt an das belgische Trapisten Bier, wird monk zweimal gegärt. Das resultiert dann auch in 6.3 Umdrehungen.

Ich nehme es jetzt mal vorweg, aber das Highlight war die rotbräunliche Farbe des Bieres. Geschmacklich erkennt man zwar den typischen Charakter eines Trapiste aber leider wird er von viel Karamell überlagert. Das führt dazu, dass es insgesamt eher süss schmeckt. Mit einem dunklen Kellerbier hat das Clausel Monk also nicht viel zu tun, bei einem Weihnachtsapero wäre es aber wahrscheinlich gut gefragt. Insgesamt hinterlässt es das Gefühl, dass da noch was fehlt. Schade. Wir öffnen also eine weitere Flasche Bier, diesmal ein Diekirch Lager, eine Brauerei im Norden des Landes.

Perfekt um sich weiter Gedanken zu unserem kleinen Land im Herzen Europas zu machen. Ein popkultureller Höhepunkt war der Besuch von Paris Hilton vor ein paar Jahren. Ein charmanter junger Mann rief ihr sogleich eine gut

**Bewertung [Clausel - Monk]:**

Geschmack: 2/5



Flaschendesign: 4.5/5



Alzette<sup>10</sup>-faktor: 4/5



Alkoholgehalt: 3.5/5



Total: 3.5/5



Unter dem QR-code findet ihr, anhand der kleinen Nummern im Text, weitere Infos und die genannten Videos.

dokumentierte Beleidigung zu, welche hier nicht wiederholt wird<sup>(5)</sup>. Auch Fernsehauftritte von Luxemburgern werden mit grosser Aufmerksamkeit verfolgt. So gibt es Politiker, die Viktor Orban backpfeifen und öffentlich als Diktator betiteln<sup>(6)</sup>. Aussenminister, die eine Ausführung gegen Matteo Salvini mit «Merde alors» beenden<sup>(7)</sup> und Schauspielerinnen, die bekannte Österreichische Kaiserinnen spielen<sup>(8)</sup>. Der öffentlich rechtliche Fernsehsender RTL<sup>8</sup> berichtet jeweils ausführlich.

Während wir weiter Humpen knuppen, luxemburgische Memes anschauen und uns über die regionalen Aufreger unterhalten<sup>9</sup>, geht langsam wieder die Sonne über dem Burgfried auf. Zum Glück sind wir Staatsangestellte, Arbeitsbeginn ungewiss und wenn man mal fehlt, fällt's auch nicht auf. Morgen geht's sowieso mit Luxairtours erstmal 2 Wochen nach Gran Canaria ins all inclusive.

Oder wie man in der Schweiz sagt: Schoggi Läbe.

- 
1. Sorry an alle Liechtensteiner und Luxemburger für den kleinen Verschreiber
  2. scheinbar auch während seiner Amtszeit
  3. Alkoholgrenzen gelten generell als grobe Empfehlung, ausserdem kennt man wahrscheinlich den kontrollierenden Polizisten
  4. Crémant steht auch noch kalt
  5. sympathisch
  6. sympathisch
  7. Sisi oder so
  8. No Joke, google mal für was RTL steht
  9. Seit Wochen geht es im ganzen Land um ein ausgebüxtes Känguru
  10. Die Alzette ist ein ziemlich brauner Fluss in der Stadt Luxemburg
- 



# Life experiences of an engineer

Supercomputing Systems

Aleksandra Bojic, Janine Biner

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*Lijin Aryananda Blatter studied electrical engineering and computer science at MIT and earned her PhD in the Humanoid Robotic Laboratory. Since then, she was working in the field for over 15 years, for example as Head of Technical Projects at Hocoma. What experiences did she make?*



## **Aleksandra and Janine: What inspired you to pursue a career in engineering?**

Lijin: I liked math and therefore chose to study at MIT. Most majors there are in engineering, so I ended up studying electrical engineering and computer science and I continued my PhD at the Humanoid Robotics Lab.

## **What skills do you believe are crucial for engineering?**

In my experience, solid technical skills and creativity are crucial. The biggest challenge is to find the optimal solution, which most of the time requires a compromise, especially when it comes down to budget. This tends to be challenging for engineers, as we are trained to optimize based on technical criteria.

## **Do you remember a specific technical challenge?**

In a project, our goal was to develop a gait rehabilitation device, which enables neurologically impaired patients to train overground walking. We assumed that an omnidirectional drive behind the patient would be the only feasible solution. After some exploration, it was clear that it would be too expensive. A frame around the patient was discarded earlier on because it was not possible to walk through doors with it. Stuck in this conflict, I thought: "Let's do it anyway and see what we come up with!". Thanks to clever engineering from the team, we developed a lightweight frame slightly shifted to the back. And guess what, it was even able to fit through doors!

## **Can you share a project you are proud of?**

In neurorehabilitation, the true physiology of walking is very important. Weight shift and hip abduction/adduction are crucial for balance. In the earlier product version, these

degrees of freedom were fixated. Significant efforts have been made to enable this, but additional motors are simply too heavy and complex. As a newcomer to the company, bringing in a fresh perspective, I was very lucky to see an easy solution with only one additional motor.

### **What contributed to your success as a technical project manager?**

I believe a successful project is achieved best by harnessing every centimeter of passion and motivation of each team member. The biggest challenge is to balance each person's motivation and the ability to accept when their idea cannot be realized. I took the time to get to know each person, especially to understand each person's trigger.

### **Looking back, is there something you missed to do?**

I would have founded a start-up. I always had ideas, but I never took the risk.

### **Do you have some advice for young people?**

Never give up on what you want. When things are not working, give it time. Do not give up.

This is the shortened version of the interview with Lijin Aryananda Blatter which you find at: <https://www.scs.ch/life-experiences-of-an-engineer/>



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## Women in Engineering

Women continue to make significant contributions in engineering fields, yet they remain underrepresented. Women in Engineering offers a platform to share ideas, exchange experiences and foster connections. Lijin Aryananda Blatter was keynote speaker at the event in May 2024. The next Event will take place in spring 2025. Stay updated at [www.scs.ch/en/events/](http://www.scs.ch/en/events/).

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super computing systems

# Notenstatistiken D-MAVT

Hopo MAVT

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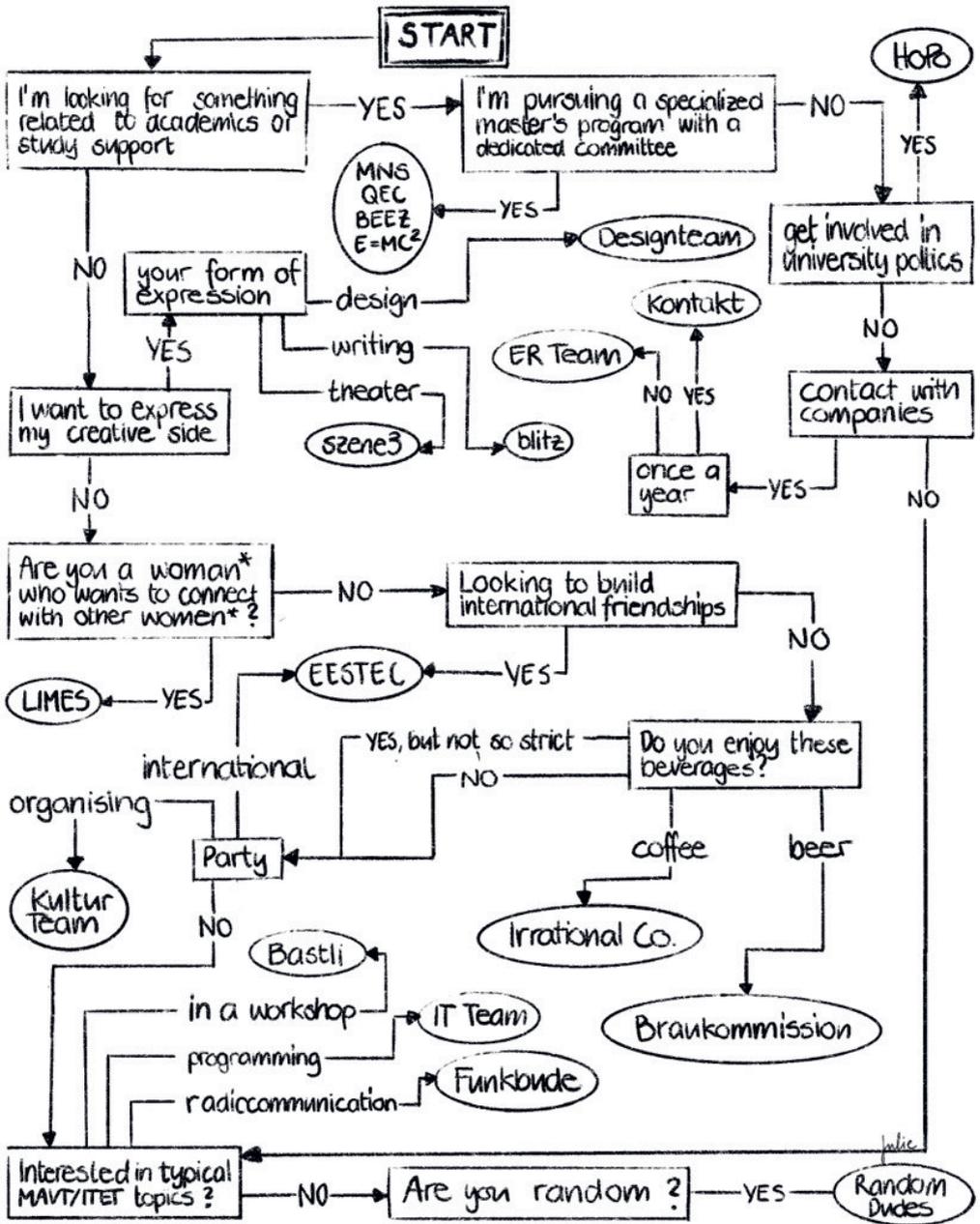
Focus/Master

MAVT alle Studiengänge

	# Stud.		Ø		# best.	# nicht best.	bestanden	
Microsystems II: Devices and Applications	9	26	5.47	5.38	9	0	100	96.2
Compressible Flows	4	41	4.5	4.24	*	*	*	65.9
Introduction to Finite Element Analysis	80	116	5.31	5.41	78	2	97.5	97.4
Energy Systems and Power Engineering	92	130	4.86	4.78	85	7	92.4	86.9
Introduction to Modeling and Optimization of Sustainable Energy Systems	38	46	3.99	4.15	23	15	60.5	65.2
Combustion and Reactive Processes in Energy and Materials Technology	10	*	4.86	*	*	*	*	90.9
Visualization, Simulation and Interaction - Virtual Reality I	20	104	4.91	4.92	18	2	90	77.9
Metal Additive Manufacturing – Fundamentals and Process Technology	20	48	5.15	5.15	20	0	100	97.9
Embedded Systems	5	25	3.69	4.25	1	4	20	64.3
Imaging and Computing in Medicine	15	150	5.18	5.1	15	0	100	98.7
Biomechanics	*	75	5.43	4.91	*	*	93.8	88
Aircraft Aerodynamics and Flight Mechanics	8	118	4.71	4.5	5	3	62.5	81.4

Mit \* gekennzeichnete Einträge wurden zensiert, da sonst Rückschlüsse auf die Noten einzelner Studierenden möglich wären.

# find your team or committee



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# Quality Control - AMIV Kontakt 2024

Johnny and Penelope

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*Once again, the «Kontakt» jobfair was in full swing in this lovely, rainy, and cold autumn. If you're not sure what the Kontakt is, then their marketing department might need a word. But for those of you out of the loop, Kontakt is a two-day event where companies present themselves to students, hoping to find motivated individuals for projects, internships, or full-time positions after graduation. And what motivates us? Bribery. So, we embarked on a mission to find out who offered the best «bribes»—in the form of merch, sweets, and other goodies. Let's dive into what we collected and rank them based on purely subjective, non-objective criteria.*

We started our scavenger hunt in the top section of the CLA, beginning with Axpo and CKW. Why did we gravitate towards them?

Maybe it was the chocolates, or maybe it was their well-dressed random guy (who, for once, wasn't wearing extremely colourful tracksuit pants). They had a decent assortment of goodies, but we settled on a brightly colored microfiber cloth and a bee wax wrap. Pretty solid freebies, especially since they were, well, free.



Next, we waddled over to Hitachi Energy, where we scored some metal reusable straws and soft, comfy socks.

Our visit was brief before we got lured away to Helbling Business Advisors & Helbling Technik, who enthusiastically bribed us by dumping their entire bowl of Minor chocolates into our hands. We also picked up some nice pens and sticky notes—nothing extraordinary, but the bribe worked, so they'll rank pretty well.

SBB CFF FFS was next with some socks, while KPMG AG sweetened the deal with a duffle bag and a heating mug. Mettler-Toledo GmbH impressed us with plenty of coffee thermoses and umbrellas (bribes we gladly accepted). Open Systems AG even gave us a cute, cow-shaped screen cleaner.

Then came Hilti AG, a company from Liechtenstein (totally not biased, I swear), who provided a red lunchbox, a cool 5-meter tape measure, and a hair tie.

But the highlight of the floor was waiting for us at the end: V-ZUG AG and their interactive lottery. The lottery itself was standard—you swiped your hand through a sensor to start a washing machine, and if the chosen ball was blue, you got to pick a prize. I can't remember the other prize options because, honestly, the only important one was the Swiss Army knife we won. V-ZUG AG gets points for style.



Unfortunately, we didn't manage to visit Endress + Hauser, Swiss Engineering STV, Stadler Rail Group, or Celetron. Either their goodies weren't noteworthy, or they were so amazing that the crowds blocked us out.

That concluded the first floor. On to the next! At the info desk (yes, the fair's info desk), they insisted on giving us a

spoon, which we graciously accepted and carried on our way. Next up was the Swissnuclear stand, where they threw masses of gummy bears and swag at us. We walked away with a sleek wallet with a card extender and some «burning sticks» (which they assured us were not matchsticks). I think there was a joke in there, but it flew over my head.



Cudos AG tempted us with their Crazy Towers game—after reaching 500 points, we earned a mug filled with candy. DECTRIS AG hooked us up with water bottles and hand sanitizer left over from a certain time period. Duagon AG came through with snazzy sunglasses, a notebook, and some Mate for a caffeine boost. Cross-ING AG spoiled us with chocolates and a fun wooden Tic-Tac-Toe set.

Bystronic Laser AG only had bottle openers, but after we visibly pouted, they gifted us a tiny laser-cut bicycle. It was adorable, though it got lost minutes later. I was gunning for one of their demo lasers, but alas, the bicycle will do, and they get an honorable mention. APP Unternehmensberatung AG offered some Mandelbärl,.

which we gladly accepted as our groveling had left us famished.

The last two companies we visited were Siemens Schweiz AG and Hexagon, specifically Leica Geosystems. Both had extensive food and merch selections. From Siemens, we received a fan, charger, toy duck, and a custom Playmobil set. Since we have the maturity of Playmobil's target audience, this was a win.

On a side note, Siemens also had a table that suspiciously resembled a beer pong setup (minus the middle section). Can anyone confirm this? Lastly, Hexagon gave us brain food, a thermos, and a multitool that specifically included a beer opener.

Unfortunately, we missed stands like Electrosuisse, RUAG, TBF + Partner AG, NTI AG – LinMot & MagSpring, Enotrac AG, Supercomputing Systems AG, Bechtle Holding Schweiz AG, TÜV SÜD (did they miss us maybe?) and Sevensense Robotics AG. If these companies still want to send us their goodies, we're open to it.

Now, onto the rankings—the part you've all been waiting for. I've decided to rank the top five stands and give two honorable mentions, because ranking all of them would be arbitrary (especially since we didn't get to visit every stand) as well as the companies having more to offer than just free stuff. My criteria? Number of goodies, level of bribery, personal biases, it factors, and overall quality. Starting with the honorable mentions: **Helbling** and

**Bystronic Laser AG**. Helbling's chocolate bribe worked wonders, and Bystronic's tiny bicycle was a nice gesture, despite its short-lived existence.

In fifth place, we have **Hexagon**, who impressed us with their wide selection of goodies and their generosity in not limiting us to just one item. Fourth place goes to **V-ZUG AG** for their creative washing machine lottery and the Swiss Army knife, which once again proves it can do anything. In third place is:

**Siemens**, with their unmatched decoration (I won't elaborate) and the custom Playmobil set. **Hilti AG** takes second place, partly because of their awesome tools and, okay, maybe partly because they're from Liechtenstein.

And the top spot this year goes to... **Swissnuclear!** Their sleek wallet, delicious gummy bears, and the mysterious yet enticing burning sticks earned them the win.

*I hope everyone had a great time at Kontakt and got what they needed—whether it was an internship, contacts, or even a job. That's what Kontakt is all about, and we're grateful to all the companies that participated. A big thank you also goes to this year's organizing committee and the Kontakt co-presidents—without them, we wouldn't have walked away with all this free stuff! And if you want to help organise the next Kontakt, the amiv is looking for the next organising committee - talk to the presidents or ask in the amiv office.*



# The Seven Dwarves

Roman Dautzenberg

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*The uniqueness of direct democracy in Swiss politics is well known. Less well known is the even more unique concept of «not having a head of state.» But then, who is in charge?*

The «Bundesrat» (Federal Council) leads the government and is the de facto head of state. Unlike most other political systems, this power is not concentrated in one person but is instead spread over the seven members of the Bundesrat, who represent all major parties and language regions. This, however, doesn't result in a cacophonous coalition with political games<sup>1</sup>. Instead, the Bundesrat is guided by the «Kollegialitätsprinzip» (Principle of Collegiality), wherein decisions made by the members are carried by all seven equally, regardless of personal opinion or party affiliation.

This is particularly amusing when a Bundesrat has to argue publicly against their personal opinion in TV debates or such.

## Abacadabra

While in theory, any Swiss citizen with the right to vote can be elected to become a Bundesrat, as long as the constellation ensures that language regions are represented adequately, there are unwritten rules that govern who is eligible—called the «Zauberformel.» The three largest parties have twofold representation, and the fourth largest party has one member in the Bundes-



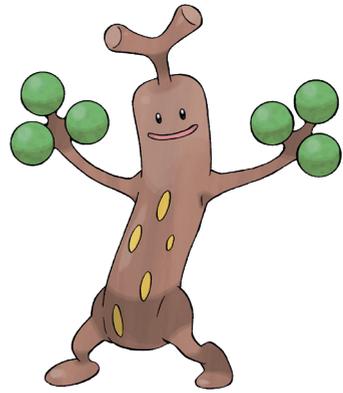
The associations are surprisingly accurate.

rat. Some small deviations can occur: In 2019, the Greens overtook the CVP, but their attempt at «stealing» from the FDP didn't succeed.

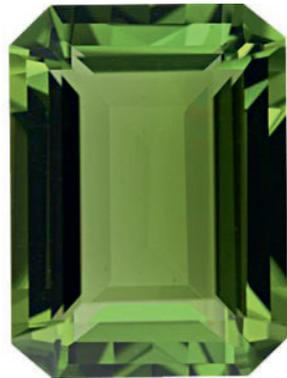
**Story Time**

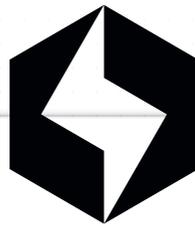
In 2007, however, the SVP became the victim of an attack on the «Zauberformel.» Christoph Blocher (SVP), who has delivered many of the more memorable moments in recent Swiss politics, was ousted in favor of Eveline Widmer-Schlumpf, also SVP, by votes from other parties. She accepted the election and was thrown out of the SVP, thus creating a new party<sup>2</sup>.

1. coughs, «Ampel-Regierung»
2. which has since ceased to exist



Pokemon Auflösung:  
Es ist Mogelbaum





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