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A visit to Alps

How the new supercomputer in Lugano has settled in this year.

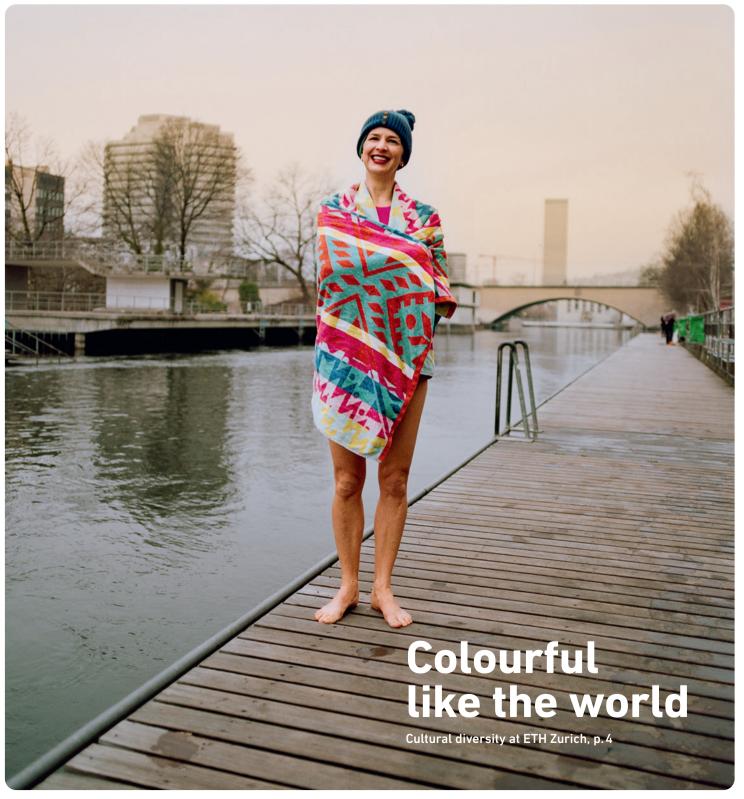
"Drag is freedom"

Anis is researching plant genetics – and winning one drag queen contest after another.

... And for fun?

Making sushi and drawing anime – how ETH members spend time together outside work.

ETH zürich





unfortunately not in the photo: Karin & Christoph:)

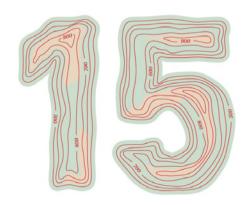
Dear ETH community,

We asked if any ETH members wanted to give us an insight into the culture in their home country, and we were delighted to receive over 30 responses. This edition contains contributions from four colleagues who exemplify the open and inclusive culture at ETH Zurich. They demonstrate how looking beyond our own noses can broaden our horizons and lead to a greater understanding of others.

And speaking of broadening horizons: after just under ten years at ETH, our editor-in-chief Anna Maltsev has decided to leave to travel the world. We would like to wish her all the very best and thank her sincerely for 27 editions of *life*.

Despite the changes to our editorial team, our goal here at *life* remains the same: to bring the ETH community closer to you, our readers, so we can shape the culture of our university together.

Your *life* editorial team



Since it opened in 2009, focusTerra has provided fascinating exhibitions and tours for visitors interested in natural and earth sciences. And it has proved extremely popular: 250,000 people have visited the exhibition rooms over the last 15 years. focusTerra will be celebrating its anniversary on Sunday, 26 May – International Museum Day – with a special programme.

→ www.ethz.ch/15yearsfocusterra

Custom-tailored information

For more than three years, the Internal news newsletter has been keeping ETH staff up to date with everything that's going on. The newsletter is now personalisable: you can decide which internal ETH topics you want to receive regular updates on with just a few clicks.

→ www.ethz.ch/internalnewsletter



The Learning & Teaching Fair will take place for the second time on 15 May 2024 in the Main Building. The event will feature exciting teaching approaches aimed at sparking debate among attendees. The focus this year is on the promotion of student engagement in teaching. The Lecturers' Conference will also be presenting the KITE Award for particularly innovative teaching projects at the event.

→ www.ethz.ch/learningteachingfair



Respect, please!

Respect - Reflect - Respond. These three words encapsulate ETH Zurich's Respect programme and describe how we should treat each other: on equal terms, willing to reflect on our own thoughts and actions, and responding appropriately in a variety of contexts. The aim of the programme, which ranges from workshops and talks to checklists, is to encourage ETH members to engage with the various dimensions of respectful behaviour.

→ www.ethz.ch/respect



Publishing information

life - The FTH community magazine is published quarterly in English and German by Corporate Communications

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Lithography

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Printing

Linkgroup AG

Proofreading

Linkgroup AG (German), Lilian Dutoit (English)

Translation

Louise Killeen Translations Limited

Circulation

13,320 copies

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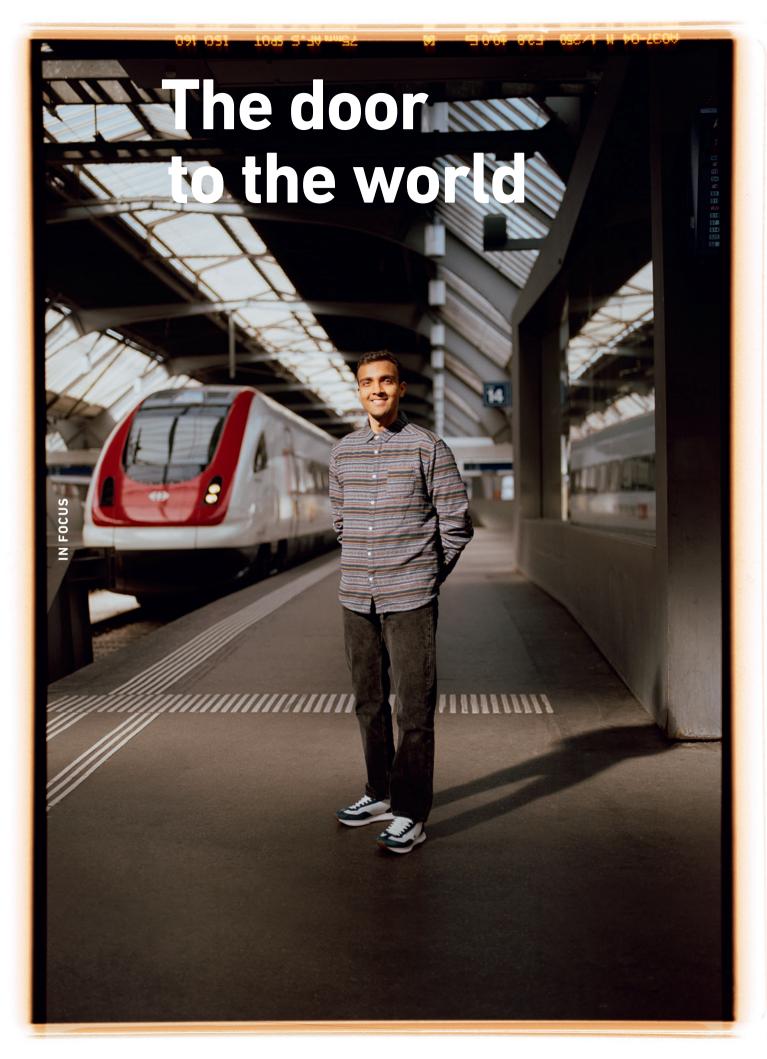
Further information and







Credits: Oliver Bartenschlager / ETH Zurich



People from over 120 countries learn and work at ETH Zurich. In this article, four of them tell us about the culture in their home country and how they feel about Switzerland.

"The reliability of the trains always fills me with peace and gratitude." When Pulkit Nahata is sad, he goes to the place that he finds most comforting: Zurich's main station. "I love trains. Even if I am feeling out of sorts, the reliability of the trains always fills me with peace and gratitude," explains the 31-year-old.

And yet it was the peace and order that he found most challenging when he first came to Switzerland. "The first six months were really hard," recalls Pulkit. "I missed the crowds, the music on the street, the colourful life and the chaos. And I found it hard to make friends at first. People are more open in India, and it's easier to strike up a conversation."

Sand dunes and studies

Pulkit was born and raised in Rajasthan in northwest India in an area surrounded by sand dunes. His family moved to the region's capital when he was 14, and from then on learning became the main focus of his life. Pulkit explains that you have to invest a huge amount of time and energy in preparing for the entrance examination if you want to study engineering in India.

He had planned to do his Master's degree in the USA – after spending his whole childhood thinking it was the place to be. But that's not how things turned out. The first acceptance letter he received was from the only European university he had applied to: ETH Zurich. The university's excellent reputation and low tuition fees ultimately tipped the scales, and

so Pulkit moved to Switzerland to do his Master's in 2014.

Cultural characteristics

After completing his doctorate at EPFL and working in the private sector, he has been back at ETH working as a researcher in the Power Systems Laboratory since last December. He has learned to ski, formed a group of friends and spends a lot more time in the great outdoors than most people in India do.

He has noticed changes in himself too: "Living in Switzerland has taught me the importance of keeping your word and being punctual because here you respect other people's time," says Pulkit. "And people are very honest. One time I lost my wallet, and someone handed it in to the police – with all the money still inside. That could only happen in Switzerland!"



"Here you feel as though there is nothing to worry about in the world."

A lack of connectedness

Medinat Malefakis has a different perspective on the mentality here: "I miss the culture of trust in Nigeria," she says. "In the town I grew up in, it was completely normal for children to be raised by the entire neighbourhood. Here, if you look after someone's child for a couple of hours, the parents give you a checklist of things to remember. In Nigeria people just trust that their child will be in good hands no matter who they leave them with," says the mother of two.

It is this connectedness, the feeling of community, that the 35-year-old misses most in Switzerland. "I grew up with the certainty that everyone is part of a community and that people will be there for you when you need them. And that people help each other," says Medinat. "There were around 15 families in the place where I lived. We weren't related, but whenever a child was born, the oldest woman in the block would look

after the baby and the new mother for 40 days to give the mother time to recover."

A decision motivated by love

Both of Medinat's children were born in Zurich. She met her husband when she came to the University of Zurich as a doctoral student in 2015. After completing her doctorate, she returned to Nigeria, where she actually intended to stay: "I had a very good job and I didn't want to give it up," she recalls. But after being in a long-distance relationship for two years, love won out, and Medinat moved to Europe.

After holding various positions in Berlin and Geneva, she came to ETH Zurich in 2020 and now works as a lecturer at the Institute of Global Cooperation and Sustainable Development, otherwise known as NADEL. Medinat teaches courses on peace-promoting measures and cultural aspects of development cooperation, such as the influence of racism.

First-hand experience of racism

Medinat knows first-hand what racism feels like. "I have experienced many examples of racist prejudices," she says. "A student once said to me: You must feel very privileged to work here as a lecturer?" I think some people really believe that I'm only at ETH because my boss wanted to have a black person in the team, and not because of my expertise."

The 35-year-old sees it as her responsibility to openly address racist comments and behaviour rather than simply ignoring them: "Not just for me but also for many other people in similar situations," she says.

Despite the difficulties, there are many positive things that she likes about her life in Switzerland – for one



thing, the political security and infrastructure make day-to-day life much easier here. Right from the beginning, Medinat has particularly enjoyed spending time on Sechseläutenplatz in front of the opera house. "When you see people sitting there in the sun eating ice cream, you feel as though there is nothing to worry about in the world. They all look so relaxed and happy. This laidback atmosphere is one thing I love about Zurich."

Destructive thought patterns

On a separate note, patriarchal ways of thinking are much less prominent here than in her home country: "In Nigeria, women are sometimes under pressure to give birth to a son and are given the blame if they don't. Certain family decisions can't be made unless there is a man at the table. And these destructive beliefs extend to politics as well."

Medinat feels comfortable in Switzerland, but not truly at home. "Because it's not my home," she says. "As a black Muslim, I will always stand out here. And even after six years, there is still a lot for me to learn from a cultural perspective."

She sees Swiss culture as full of contrasts: How can it be that, in such a rich country, daycare places are so expensive and daycare workers earn so little? Medinat shakes her head. Then she smiles: "And how can it be that Swiss people take so long to open up but then turn out to be the kindest and most warm-hearted people?"

"Emigrating felt like a hike in the mountains."

Once you're in, you're in

Maria Friedrich from Argentina has had similar experiences: "In Switzerland, it takes longer for someone to let you into their life. But once you're in, you're in forever," says the 36-year-old. She first visited Switzerland at the age of 21 to attend a scout camp and has lived in Zurich since the end of 2020.

Switzerland suited her right from the beginning, particularly the culture and the mountains. As a child, she spent a lot of time hiking in Patagonia and enjoyed camping out in nature. "I was also keen to see what it felt like to live in a place where everything around you works smoothly," says Maria.

In Argentina, she worked for a governmental start-up funding pro-

gramme; at ETH, she supports researchers and students who want to found a spin-off. Despite the similarity in terms of subject matter, she finds the working atmosphere very different to Buenos Aires: "Everyone is much more focused in the office here, and there is more of a separation between work and home life. If I take a day off, for example, no one asks me what I plan to do. I found that quite surprising at first," recalls Maria.

Planning vs spontaneity

Another challenge at the beginning was having to change her daily routine. In Buenos Aires, she would start work at ten following a training session in the gym. Lunch and dinner were later in the day too, and there was a lot more going on in the evenings. Maria has now got used to her new way of life, but there is one thing she still misses: "In Argentina, people are more spontaneous and flexible. I understand that planning and structure are important in our working lives, but I think it's a shame that everything has to be planned so far in advance in our personal lives here too."

The fact that Maria has experience of doing things differently is an advantage for her: "On a project a few weeks ago, something didn't go to plan, and I thought: 'OK, in that case I'll go about it the Argentinian way'. I asked a few people for advice and quickly found another way of doing it. Everyone was happy, even if it didn't go as originally planned."

Maria seems to have settled in. But it was a long and difficult journey to get to this point, she says, looking towards the Alps from Bürkliplatz. "For me, emigrating felt like a hike in the mountains. I had to keep saying to myself: Keep going, hang in there, at some point you'll get to where you want to be. And that's



what happened." She now feels as though she has two homes – thanks in part to the fact that Zurich and ETH are such international places where she felt welcomed right from the start. "I'm already looking forward to my naturalisation in ten years!"

Colourful like the world

That is one of the main reasons Emily Cross wants to stay here too. After living all over the world, the ETH professor of neuroscience has been in Zurich for over a year now.

She was born and raised in a small town in Ohio in the USA. "Very conservative, very white, very Republican," says Emily, describing her hometown as she pulls her blue swim cap over her pink hair. She is getting ready to take a dip in the Limmat, as she does every week. The fact that it is eight degrees outside does nothing to dampen her mood or the unbridled energy that she radiates.

If there is one thing that Emily misses about the USA, it is precisely this kind of effervescent energy that people have. "Some people say the vibe in America is more dynamic than in Europe – and I think they have a point," says Emily. At the same time, however, there are some things about the USA that she can't relate to. "Many Americans are incredibly patriotic and think that the USA is the centre of the universe. Many of them have never been abroad and don't even have a passport."

Magical nature

Even when she was young, Emily travelled to Europe almost every year to visit her relatives, which made her realise "that the world is so much bigger and more interesting than my life in the USA," she recalls. There was one country that she became particularly fond of: "I thought the nature in Switzerland was magical. And someone told me that New Zealand was like Switzerland but with beaches, so I decided to do my Master's in New Zealand."

After completing her doctorate in the USA, Emily held various positions in Germany, the Netherlands, England, Wales, Scotland – and finally Australia, where she spent four years as a researcher before coming to ETH. "Things aren't easy for scientists in Australia," says Emily. The government has other priorities, and most of the funding goes to research projects in the agricultural and mining industries. Furthermore, there are hardly any administrative staff, which means that researchers spend huge amounts of time dealing with bureaucracy.

The fact that the opposite is true at ETH is something she particularly appreciates about her new role: "Across all of the institutions I've worked in, I've never had so much of the administrative work done for me – which leaves me so much more time for research. It's amazing!" says the mother of two.

An invisible contract

What surprised her most was that there is a kind of invisible social contract in Switzerland. "Everyone seems to know: You are reliable, punctual and do your best at work. Nobody simply tries to complete tasks as quickly and cheaply as possible or to rip others off. I've never experienced that anywhere else!" says Emily.

Another thing she's noticed is the incredibly polite tone used for matters such as unpaid invoices: "There can't be any other country where you get a letter saying, 'We are aware that we all have so much to do and invoices can get overlooked' instead of getting a hefty fine along with a threat of what will happen if you don't pay it within the next three hours," laughs Emily as she jumps into the Limmat. "I'm already looking forward to my naturalisation in ten years!" she calls.

When does a country become home?

About a kilometre away, Pulkit is standing in his second favourite place in Zurich. He is on the University Hospital roof terrace, looking over at ETH's Main Building. "This view always makes me very emotional," he says. "It reminds me how good life has been to me and how grateful I am to be here. For me, ETH has been the gateway to Switzerland."

Even after ten years, some Swiss idiosyncrasies still puzzle him, but he has at least learned to enjoy the peace

and order on the streets. And when his mother said to him recently how happy she was that he was coming home soon, Pulkit said: "I'm happy too, but my home is in Switzerland"



Author Anna Maltsev Photos Yves Bachmann

A visit to Alps

9.45 Miguel, Cheyenne and Fabio discuss today's tasks.

10.15 Mathias and Maria look at how to adapt the Meteo-Swiss weather models for Alps.



11.00 In the distribution room under the computer room, Raffaele and Rolando discuss how to supply a new Alps module with power.

13.30 Fabio takes a metal box containing the new superchips out of an Alps cabinet. The blue and red tubes are part of the cooling system.





"We are always trying to destroy Alps," shouts Miguel Gila on this particular Monday morning in the 2,000 m² computer room of the Swiss National Supercomputing Centre (CSCS for short) in Lugano. The deafening roar of the cooling system almost drowns out his voice completely. The neat rows of metal cabinets in this room are home to Alps, one of the fastest computers in the world.

So why does the computer scientist want to push the new supercomputer to its limits? Miguel and his team are responsible for ensuring that Alps and the other high-performance computers at the CSCS operate smoothly. To do this, they need to put them through their paces again and again – just as they are doing today. This is the only way to discover any potential faults and weaknesses.

If Miguel does his job well, it enables researchers and customers to make the best possible use of the CSCS supercomputers. Take the weather forecasts for MeteoSwiss, for example – these are currently running 24 hours a day, 7 days a week on two of the CSCS's older computers.

Two floors up in the office block next door, Mathias Kraushaar is speaking to a representative of MeteoSwiss on the phone. The aerospace engineer is the CSCS's central contact for the weather service. "We're speaking to each other almost every day at the moment because we're discussing the introduction of a new weather model," he says. The plan is to stop running the weather forecasts on the two older computers and move them to the much faster Alps in order to make the predictions more accurate.

Like a power plant

Keeping a supercomputer like Alps up and running requires a huge amount of electricity and cold water for cooling. This water is pumped directly from Lake Lugano into the CSCS's distribution room, which is under the computer room. Rolando Summermatter and Raffaele Del Vecchio are meeting here this morning to discuss the installation of a switch box.

Every time a new cabinet is installed upstairs in the computer room for Alps, it requires its own electricity connection on the floor below. The room

"We are always trying to destroy Alps."

looks like a small power plant with thick pipes and large black electrical cabinets.

Rolando has been an electrician at the CSCS for twelve years. He knows how everything should smell and sound if it is working properly. "I notice straight away if a cable has burned through or the cooling system sounds different," he says.

Training Al

Back in the computer room, Miguel and two of his colleagues are taking a grey metal box out of one of the Alps cabinets. These boxes contain the supercomputer's "brain": a new generation of superchips. "The reason that Alps is so fast is because we were able to get hold of the best computer chips in the world," says Miguel. One of these chips has roughly the same computing power as 4,000 smartphones – and Alps contains more than 10,000 of them. Not only does this allow researchers to simulate climate models or find ingredients for medicines but it also enables them to train artificial intelligence at the highest level. Which is why it's worth pushing the supercomputer to the extreme every now and again.





Anis Meschichi joined ETH a year ago and is researching changes in plant genetics. He has also won Switzerland's three major drag queen competitions.

Anis Meschichi realised early on that he did not conform to societal norms. "At some point my friends said: You're not male or female, Anis, you're just you. And I thought that was great," he recalls. Today, he still sees himself as feminine, masculine and – at the same time – neither.

Anis stands out. When he walks through the corridors of the NO building in the Department of Biology in his bright purple blazer, he catches the eye of many an onlooker. But it's not just his extraordinary style that attracts attention – it's the positive energy that he radiates too. "Everything that Anis does is full of passion and love," says ETH professor Kirsten Bomblies, who leads his research group.

Anis is a postdoctoral researcher and teacher in the field of plant evolutionary genetics who focuses on the small and delicate Arabidopsis arenosa. The

"Being afraid of my father and all the hostility I've faced showed me how important love and empathy are." extraordinary thing about this plant is that it has duplicated its DNA over the course of its history. However, this duplication is not viable if carried out artificially. Anis wants to find out why this is.

Irrepressible will to survive

"Plants are so cool. They have developed mechanisms to survive against all odds," says Anis. His passion for plants began during his childhood in southern France, when he would help his mother in the garden and arrange bouquets of flowers - always with a thousand questions buzzing around his head: How do plants thrive in very dry places? And why do they not get sunburn when they are out in the sun all day? It was guestions like these that would eventually result in him studying biology in Paris. After completing his doctorate in Sweden, the 31-year-old came to ETH around a year ago.

"Everyone in the lab loves Anis – it's hard not to," says Kirsten. "Since he joined us, the atmosphere in our group has changed. There is a stronger sense of team spirit and people do more things together – some have even been to his shows."

Never lying again

When Anis came to ETH for his interview, he spoke openly about his drag queen

alter ego. "Like most queer people, I spent a very long time denying part of my identity," he says. "But at some point, I realised that was the wrong thing to do and I decided not to lie anymore."

He now spends almost all of his free time working on his drag persona: decorating dresses, creating new makeup looks, rehearsing his performances. It is important to him that every performance contains a message – something to inspire the audience.

When he stands on the stage as Klamydia von Karma, all traces of his identity as a researcher are gone. His dark curls are pinned into an elegant updo, his elaborate make-up resembles a painting, and he dances across the stage in 20 cm heels, entertaining the audience with a mix of comedy and karaoke.

Combining his passions

It all started with his love of sewing and painting. "One day I thought: Why not paint my face?" recalls Anis. "And then came music and theatre too, and I realised that drag combines all of my passions."

The success he has achieved and the fact that he has won Switzerland's three major drag queen competitions in just one year is something that Anis still struggles to believe. One competition was particularly special for him: "At the Miss Heaven Contest, Kirsten was sitting in the front row," he says with a huge smile. "I was so proud of him!" recalls the ETH professor.



"I want to inspire others to be their true selves."

Love, empathy and zest for life

When Anis speaks, you can hear his zest for life in every word. It's hard to believe that his life hasn't always been like this – and yet, as he says, it is the dark moments that have shaped him most of all. And darkness is something that Anis is all too familiar with: he was abused by his father, bullied in school and even marginalised within the queer scene because he sees himself as a non-binary drag queen rather than having a female persona.

"As bad as those experiences were, they all resulted in something positive," says Anis. "Being afraid of my father and all the hostility I've faced showed me how important love and empathy are."

And so he made it his mission to create an environment where everyone feels welcome – whether it is in the lab or on the stage. "For me, drag means freedom," says Anis. "The freedom to be who you want to be. And I want to inspire others to be their true selves too. Of course, you do have to adapt a little bit to whatever environment you're in – just like plants do. But you don't see roses pretending to be fir trees just so the other plants will accept them."

Authors Anna Maltsev and Mira Wecker

Photos Anne Morgenstern

... And for fun?

On *Internal news* we asked you to tell us about the special networks and leisure activities that bring ETH members together. Here's what you had to say:

ETH members cook...



"We meet up once a month to make sushi. Everyone brings an ingredient – rice, seaweed sheets, cucumbers, etc. We make the sushi in the science lounge in the new ETH building in Basel and then sit down and eat it together."

Antoine Zwaans and Cecilia Valenzuela Agüi, doctoral students in the Department of Biosystems Science and Engineering



save meals...

"I'm a member of the Foodsharing association, along with many of my ETH colleagues. Foodsharing is an international movement that aims to reduce food waste and has over 4,500 partnerships with companies in the German-speaking countries. We collect food from restaurants and food retailers that would have otherwise been thrown away and we distribute it elsewhere. Anyone can sign up at www.foodsharing.de and join in."

Sebastian Kahlert, ETH Sustainability employee



"Our favourite hobby is to go hiking with our pack goats. They live with us on a farm and are very trusting and adventurous. They provide entertainment and cuddles and carry our baggage — which is a welcome relief when you're hiking for several days."

Sandra Egli and Christian Golfetto, ASVZ employees





dance...

"Batucada is an Afro-Brazilian style of drumming – a type of samba. Our drum group Borumbaia meets to practise every week. We play at carnival parades, private parties and doctoral graduation events and get people up and dancing. I am one of the founding members. Many of our 58 drummers are or were at ETH."

Gloria Sancho Andrés, laboratory manager in the Department of Biology







"We are ETH employees and students who have introduced a new sport to our university: Latin formation dance. We practise more than six hours a week to hone our technique and synchronicity."

Marina Ivanović, scientific assistant in the Department of Computer Science, and Christoph Hellings, lecturer in the Department of Physics





"We meet for Zouk several times a week. Zouk is a Brazilian dance style that you can dance to different genres of music. We often travel to festivals together too. This has enabled us to forge some great friendships with people from different ETH departments as well as from the University of Zurich."

Julian Förster, doctoral student in the Department of Mechanical and Process Engineering

Recorded by Michael Walther

meet to draw anime...





"I founded the Zurich Universities Anime Association so I could share my love of anime and manga art with others. We meet up every week, go to festivals and offer drawing courses. Most of us are ETH and UZH students, but anyone interested is welcome to join us!"

→ www.instagram.com/zun.anime/

Lok Man (Lucina) Yuen, Master's student in the Department of Biology

... and are looking for like-minded people!



"I like to visit integer degree intersections of latitude and longitude and am part of a global network whose members document these points with photos. This hobby has already taken me to some unusual places. For example, one of the intersections is in the Glarus Alps near Vrenelisgärtli. It would be hard for me to reach by myself – but perhaps there are some alpinists at ETH who would be interested in joining me!"

→ rainer.mautz@geod.baug.ethz.ch

Rainer Mautz, lecturer in the Department of Civil, Environmental and Geomatic Engineering



"I discovered the joys of a racing bike two years ago. As soon as I get in the saddle, I'm in my element and forget about everyday life. I often go out on my own – but it would be even more fun to have a peloton to ride with. Any cycling enthusiasts at ETH should get in touch with me!"

→ karin.emmenegger @services.ethz.ch

Karin Emmenegger, Campus Services employee

What would you like to learn this year?



Yan Yasser (25) doctoral student in the Department of Environmental Systems Science

"Despite having back problems, I would definitely like to learn how I can get back into sport – particularly swimming and running."



Mengyuan Yin (23) exchange student in the Department of Information Technology and Electrical Engineering

"I would like to gain more knowledge in the field of finance as I'm considering working in this sector – and it would help me to invest my own money more profitably too. I would also like to try skiing for the first time."



Zhiyuan Zhang (28) doctoral student in the Department of Mechanical and Process Engineering

"As I would like to be a professor one day, I want to learn how to inspire others and help them to achieve their goals."



Suad Abdullahi (32) ETH Store employee

"Yoga has always fascinated me. This year I would like to finally give it a go — partly because people who do yoga always have such positive energy."



Thomas Zurbuchen (55) Professor of Space Science and Technology

"I recently went on my first back country ski trip in Switzerland. Nature is even quieter and more beautiful away from civilisation, and the sky feels closer. So I would like to learn to climb higher up into the mountains."



Teodora Milankovic (25) Master's student in the Department of Physics

"I love wine and would like to have a go at making it myself. Maybe there is someone in our department who could show me how to do it."



Stefan Kling (27)
Bachelor's student in the Department
of Health Sciences and Technology

"I already know a few programming languages and would like to learn some more. I'm currently doing some programming alongside my studies and would maybe like to do it as a full-time job after my degree."



Against the wind in the machine laboratory

This may look like a scene from an early James Bond film, but in fact it shows students from the Institute of Aerodynamics. The platform with scales for measuring lift or resistance was located above a wind tunnel in which the students would test their aircraft models.

The picture is almost 70 years old, but the institute – now called the Institute of Fluid Dynamics – was founded

back in 1932. A few years later, the world's first closed supersonic wind tunnel was commissioned at the institute. The machine laboratory that contained the measuring room shown here is a listed building and underwent extensive renovation last year. Today, the institute operates a number of wind and water tunnels for fundamental and applied research.