



# **S**pectral **T**heory and **A**pplications in **M**athematical **P**hysics, **STAMP**

**Workshop in Honour of Christiane Tretter**

**June 2-5, 2025, University of Bern**

# Workshop Timetable

Building ExWi, Lecture Hall B7 (floor B underground)

## MONDAY, 02.06.2025

13:00-14:00 *Registration*  
14:00-14:15 *Opening*  
  
14:15-14:45 Pavel Kurasov  
14:50-15:20 Peter Šemrl  
15:25-15:55 František Štampach  
16:00-16:30 *Coffee Break*  
16:30-17:00 Borbala Gerhat  
17:05-17:35 Petr Siegl  
17:40-18:10 Jean-Claude Cuenin  
  
18:30 *Apéro riche*

## TUESDAY, 03.06.2025

09:00-09:30 Christian Engström  
09:35-10:05 Francesco Ferraresso  
10:10-10:40 Joachim Escher  
10:45-11:15 *Coffee Break*  
11:15-11:45 Kaori Nagatou  
11:50-12:20 Michael Plum  
12:25-12:55 Margarita Kraus  
  
13:00-14:15 *Lunch Break*  
  
14:15-14:45 Jussi Behrndt  
14:50-15:20 Matthias Langer  
15:25-15:55 Yury Arlinskiĭ  
16:00-16:30 *Coffee Break*  
16:30-17:00 Harald Schmid  
17:05-17:35 Elmar Schrohe  
  
18:15 *City Walk Bern*

## WEDNESDAY, 04.06.2025

08:45-09:45 *Visit to Einstein House*

10:15-10:45 Birgit Jacob

10:50-11:20 Christian Wyss

11:25-11:55 *Coffee Break*

11:55-12:25 Sabine Bögli

12:30-13:00 Nicolas Hefti

13:00-14:15 *Lunch Break*

14:15-14:45 Thomas Wihler

14:50-15:20 Marco Marletta

15:25-15:55 Uwe Günther

16:00-16:30 *Coffee Break*

16:30-17:00 Frank Rösler

17:05-17:35 Carsten Trunk

17:40-18:00 Short speeches

19:30 *Conference Dinner*

## THURSDAY, 05.06. 2025

09:00-09:30 Martin Grothaus

09:35-10:05 Eva Gallardo Gutiérrez

10:10-10:40 Manfred Möller

10:45-11:15 *Coffee Break*

11:15-11:45 Annemarie Luger

11:50-12:20 Matthias Hieber

12:25-12:40 Closing

Supported by the Mathematical Institute of the University Bern as well as by



Schweizerische Mathematische Gesellschaft  
Société Mathématique Suisse  
Swiss Mathematical Society



## **City of Bern**

Bern is not only the capital of Switzerland, but also the capital of the Canton of Bern, the second-most populous of the Swiss cantons. The official languages are German and French, but the main spoken language is the local variant of the Alemannic Swiss German dialect, Bernese German. In 1983, the historic old town (in German: Altstadt) in the centre of Bern became a UNESCO World Heritage Site. It is notably surrounded by the Aare, a major river of the Swiss Plateau.

Although fortified settlements were established since antiquity, the medieval city was founded by the Zähringer ruling family, probably in 1191 by Berthold V, Duke of Zähringen. Bern was made a free imperial city in 1218 and, in 1353, it joined the Swiss Confederacy, becoming one of its eight early cantons. In the sequel, Bern became a large city-state and a prominent actor of Swiss history by pursuing a policy of sovereign territorial expansion. Since the 15th century, the city was progressively rebuilt and acquired its current characteristics. Bern was made the Federal City in 1848. From about 5,000 inhabitants in the 15th century, the city passed the 100,000 mark in the 1920s and has now more than 130,000 inhabitants.

## **Einstein House Bern**

The Einstein Haus is a museum (run by the Albert Einstein Society) and one of the many former residences of Albert Einstein in Bern. It is located in the old city at Kramgasse 49. A flat on the second floor of the house was occupied by Einstein, his wife Mileva Marić, and their son Hans Einstein from 1903 to 1905. The five Annus Mirabilis papers in three different fields of physics were written here. During this time Einstein worked at the Federal Institute of Intellectual Property (Patentamt). The living conditions of Einstein and his family are shown accurately in the apartment on the second floor with furniture from that time. Einstein's biography and his life's work are presented on the third floor.

A permanent exhibition about Einstein's whole life can be seen in the Historical Museum of Bern if you cross the river Aare on Kirchenfeldbrücke.

## Rose Garden Bern

The rose garden (Rosengarten) is a park to the north-east of the old town in the Schosshalde district of Bern. The gardens are popular with locals and tourists alike, as a vantage point with a great view of the old town lying in a loop of the Aare river, featuring a restaurant and a beautiful park. The site was used as a cemetery from 1765 until the Schosshalden cemetery was opened in 1877. In 1913, it was converted into a public park and roses were grown here from 1917. Today, 223 rose, 200 iris and 28 rhododendron species are grown there. In 1997, twelve new lime trees were planted along the avenue of crosses, which dates back to the time of the cemetery.

The pond complex with the two monumental groups Europa and Neptune by Karl Hänny has existed since 1918. The park was redesigned in 1956. A bust of the Swiss novelist Jeremias Gotthelf created by Arnold Huggler in 1937 had to make way for the new summer restaurant in 1960 and was moved in front of the pavilion with the dialect library.



## Exakte Wissenschaften, Sidlerstrasse 5

The history of the site started in 1812 when a wooden observation gallery and ten years later a telluric observatory were built on what was then the Hohliebe bastion forming part of the baroque city fortifications – the oldest reference point of Swiss land surveying. The old Physics Institute was erected on the same site in 1876/77 and continued to house a telluric observatory, i.e. instruments for geodesy, under its dome. (Astronomy was pursued at Muesmatt Observatory from 1922.) The new Institute of Exact Sciences was constructed between 1959 and 1963. Between 1972 and 1974, today's "Kragenbau", a large structure particularly visible from the tracks in

the railway station with sunken inner courtyards and several basement levels, was erected around this building. The last building phase took place between 1991 and 1994 and comprised the installation of the library in the inner courtyard (well visible from the Mathematical Institute).

The most interesting component of this ensemble is the core building by the Reinhard architecture couple who left behind a work of architecture renowned well beyond the boundaries of Bern. The presence of the somewhat inconspicuously clad building with steel, glass and light lime-stone reminiscent of a central structure is based on the courtyard typology. The layout shows how the architects created varying spatial depths and hence a surprising variety of spatial options for access and usage with a slightly eccentric arrangement of the courtyard on four sides of the building.



1812



## Sightseeing

The **Federal Palace** on Bundesplatz built between 1894 and 1902 is the parliament building in Bern housing the Swiss Federal Assembly (legislature) and the Federal Council (executive). It is the seat of the government of Switzerland and parliament of the country. The building is a listed symmetrical complex over 300m long. It is considered one of the most important historic buildings in the country and listed in the Swiss Inventory of Cultural Assets of National Importance. It consists of three interconnected buildings in the southwest of Bern's old city. The two chambers of the Federal Assembly, the National Council and Council of States, meet in the parliament building for four ordinary sessions of three weeks every year.

The **Zytglogge** is a landmark medieval tower and one of the main attractions in Bern. Built in the early 13th century, it has served the city as a guard tower, prison, clock tower, centre of urban life and civic memorial. Despite the many redecorations and renovations it has undergone in its 800 years of



existence, the Zytglogge is one of Bern's most recognisable symbols and the oldest monument of the city with a sophisticated 15th-century astronomical clock. But the clock doesn't just count the seconds. It also powers an hourly performance (starting 5 minutes before the full hour) incorporating a fool ringing the bell too early, a dancing jester, parading bears and a gild-ed figure named Chronos who flips an hourglass and opens his mouth with each strike of the bell on the tower's top.

**Bern Minster** (Berner Münster) is a Swiss Reformed cathedral (or minster) in the old city of Bern. Built in the Gothic style, its construction started in 1421. Its tower, with a height of 100.6m, was only completed in 1893. It is the tallest cathedral in Switzerland and is a cultural property of national significance. One of its biggest attractions can even be seen from outside: the highly elaborate Last Judgement decorating the central portal.

The **Moses Fountain** is a figural fountain built in 1791 on Münsterplatz in Bern's old town. The fountain statue was made by Nikolaus Sporrer from Konstanz and depicts Moses holding the two tablets of the law with the 10 commandments in his left hand and pointing to the second commandment with his right hand: 'Thou shalt not make unto thee any graven image, or any likeness'. Altogether Bern has 102 public fountains with drinking water of which 36 are in the city centre; being cleaned once a week, no chemical ingredients need to be added to keep them clear.

The **Bern Town Hall** (Rathaus Bern), built between 1406 and 1417, has been the political centre of the Canton of Bern for more than 600 years. There the Grand Council of the Canton of Bern meets four times per year for about two weeks per session and the Grand Council of the City of Bern every other Thursday. There are regular guided tours of the building. The main building is a square, three story sandstone structure. The south facade is symmetric around the large open-air staircase and main entrance loggia into the upper story. The upper story has four sets of windows on each side of the main entrance. The 20th century renovation removed much of the roof over the staircase, leaving only the centre section with its double pointed arch vault which was restored to its medieval appearance. The statues which adorn the clock pavilion are copies of the original polychrome statues by Master Hariman of Prague. The shield with the Bern coat of arms was originally an imperial eagle. The iron gates in the portals below the stairs are original treasure chamber doors by Michel Müller. Flanking the main entrance under the roof are the 26 shields of the 26 former cantonal districts (Amtsbezirke). These districts lost their administrative and political significance in 2010.

The **Bärengraben** (Bear Pit), is one of the big tourist attractions in Bern and features one bear family right now, Finn, Bjoerk and their daughter Ursina. It is a bear pit, or enclosure that housed bears, situated at the eastern edge of the old city of Bern, next to the Nydeggbrücke and the Aare river. In 2009 the Bärengraben was supplemented by the adjacent BärenPark, a larger and more natural enclosure alongside the river Aare. The Bärengraben and BärenPark are administered as a geographically discrete part of the city's Dählhölzli Zoo. The Bärengraben is a Swiss heritage site of national significance; it is of particular significance in Bern because the bear is a symbol of both the city and surrounding canton, featured in their coat of arms.

**Zentrum Paul Klee** is a modern museum in Bern opened in 2005 and dedicated to the German painter Paul Klee. It possesses about 40 percent of his entire pictorial oeuvre and hence the world's largest collection of his works. Its shape of three undulations blending into the landscape designed by the Italian architect Renzo Piano is equally appealing (especially for mathematicians!). Paul Klee spent about half of his life in Switzerland and after 1933 six years in Bern, his grave on Schosshaldenfriedhof is only about 200m away from the museum. In 1997, Livia Klee-Meyer, Paul Klee's daughter-in-law, donated her inheritance of almost 690 works to the city and canton of Bern. Additional works and documents donated and loaned by the family and the Paul-Klee-Foundation and a further 200 loans from private collections contributed to this unique collection of works by the artist. After the decision to build the museum in the Schöngrün site on the eastern outskirts of Bern in 1998, renowned Italian architect Renzo Piano was contracted the same year and the building was completed in 2005.



## Shopping

Bern's old town (Zytglogge to Bärengraben) is a shopper's paradise with many small shops. Thanks to its six kilometres of arcades, Bern is in fact



home to one of the longest covered shopping promenades in Europe. Here you find craft and speciality shops as well as cafés and restaurants.

## **Loeb**

Loeb is a traditional department store near the railway station where you will find everything you need. It has an exciting food department with local products in a neighbouring building in Schauplatzgasse: <https://loeb.ch/>

## **Bernese weekly market**

On Tuesdays (and Saturdays) Bundesplatz, Münsterergasse and Schauplatzgasse host a fantastic market with local products sold by the producers: <https://www.bernerwochenmarkt.ch/>

## **Chocolate specialities**

Confiserie Eichenberger <https://www.confiserie-eichenberger.ch/>

Confiserie Tschirren <https://www.swiss-chocolate.ch/en/>

Confiserie Nobile <https://www.casa-nobile.ch/>

## **Cheese specialities**

[Käserei Zbinden](#), Tuesday on the weekly market on Bundesplatz (near BEKB)

Chäsueb (also in Loeb) <https://www.chaeseueb.ch/che/de>

Chäshütte <https://chaeshuette-bern.ch/>

## **Various / Knives**

Klötzli Messerschmiede <https://www.klotzli.com>

## **Recommendations for eating out:**

### **When you arrive:**

*If you arrive on Sunday*, even if late, then the train station offers a very good vegetarian buffet restaurant (you can choose everything yourself) which is open until 10.30 pm, the restaurant TIBITS (right at the main entrance/exit): <https://www.tibits.ch/en/>

The shops in the station are also the only ones in Bern with longer opening hours (e.g. in the floor -1 there are the supermarkets Migros, Coop and Lidl which are open until 10pm) and various self-service restaurants.

*If you arrive on Monday* before or around lunch, but still have time before the talks, then right next to the elevator taking you up from the train tracks to Grosse Schanze (where you need to go for the ExWi Building), there is one of the university's eating options for lunch, Restaurant Grosse Schanze <https://www.grosseschanze.ch/>

It has a big variety including a salad buffet, soup, warm dishes (partially also buffet) as well as sandwiches, coffees and cakes.

## **Lunch Break**

There are various options in the near neighbourhood of ExWi for your lunch break. The two university canteens are:

Mensa & Cafeteria Gesellschaftsstrasse (just opposite ExWi) & UniS (3 min. walk): <https://www.gastro-unibern.ch/menueplaene/>

Restaurant Grosse Schanze (3 min. walk, at the elevator to the station): <https://www.grosseschanze.ch/>

There are also various places for take-away or to eat in the railway station; the vegetarian buffet TIBITS in the station(see above, 7 min.), also featuring cakes and good non-alcoholic drinks is an option for lunch: <https://www.tibits.ch/en/>

## **Cafés / small snacks** (in the city centre, in alphabetic order)

Einstein Café & Bel Étage <https://einstein-cafe.ch/>

Lesbar, University Library (has eduroam) <https://www.lesbar.ch/>

Café des Pyrénées <https://www.cafedespyrenees.ch/>

Volver <https://barvolver.ch/>

## **Restaurants** (in the city centre, in alphabetic order)

Brasserie Bärengraben <https://brasseriebaerengraben.ch/>

Casino <https://www.casinobern.ch/en/dining/>

Cinématte <https://www.cinematte.ch/restaurant>

Commerce <https://www.restaurantcommerce.ch/>

Entrecôte Fédérale <https://entrecote.ch/language/en/>

Huusbüffe <https://www.gurtenpark.ch/en/restaurants/huusbueffe/>

Kirchenfeld <https://www.kirchenfeld.ch/>

Kleine Schanze <https://kleineschanze.ch/>

Klösterli Weincafé <https://kloesterlibern.ch/en/Welcome>

Kornhauskeller <https://kornhaus-bern.ch/?lang=en>

Lorenzini <https://www.bindella.ch/gastronomie/lorenzini>

Lötschberg <https://www.bindella.ch/gastronomie/lorenzini>

Mühlirad <https://www.muehlirad-bern.ch/>

Ringgenberg <https://www.restaurant-ringgenberg.ch/>

Toi et Moi <https://www.toietmoi.ch/>

Tramdepot <https://altestramdepot.ch/en/Info/Restaurant>

Schwellenmätteli <https://www.schwellenmaetteli.ch/en/>

Zimmermania <https://zimmermania.ch/>



## MAP OF BERN (please rotate by 90 degrees)

