



Galaxy

Community

Conference

Konzerthaus, Freiburg, DE

1-8 July, 2019



#usegalaxy

galaxyproject.org/events/gcc2019

@galaxyproject



Talks, posters & demos
Trainings
BoF gatherings
CoFest

A Community event!



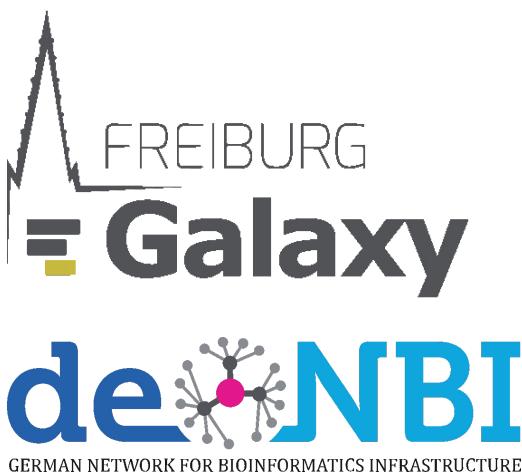
Willkommen!

Welcome to the 2019 Galaxy Community Conference (GCC2019), the 10th annual gathering of the Galaxy Community. GCC2019 features one day of training, three days of mixed meeting and training, and then up to four days of CollaborationFest. Every day of the meeting will include plenary & parallel sessions; invited, accepted, and lightning talks; poster and demo sessions; Birds-of-a-Feather (BoF) meetups; social events; and training sessions. GCC2019 is all about data-intensive research and its supporting compute infrastructure. We also include plenty of time for networking and impromptu gatherings.

We would like to give an enormous thank you to our sponsors and hosts, our instructors, the Scientific Committee, BoF organisers, speakers, demo and poster presenters, and to everyone who contributed to making this event a success.

Vielen Dank!

The GCC2019 Organising Committee



Venue & getting around

GCC2019 takes place in Konzerthaus Freiburg, located in the center of Freiburg, and is easily reached via foot, bike, public transportation or car.

Freiburg has an extensive and integrated public transportation network - Zone 1 (Preisstufe 1) ticket for Freiburg - 2 x 4-trip tickets is a convenient option. Consider using the Freiburg transport website and app (<https://www.vag-freiburg.de>) to get routes, schedules, and ticket information.

Restaurants, bars, and things to do are located everywhere around and in the city centre. Check out the map at the end of the program or online (<http://bit.ly/gcc2019map>).

In the Konzerthaus, most of the events will take place on the 2nd floor, only the conference desk (where you can always ask for help) and the childcare room are located on the ground floor. Food will be served on the 2nd floor, where the breaks also take place. Check out the Konzerthaus floor plan on the last page to know where events are.

The plenary sessions will take place in the **Greece** room and the parallel track in the **Germany** room. Training will be in these rooms and also in the rooms **Italy**, **Belgium**, **France** and **Spain**. All previous room as well as the **Czech Republic** room can be used for BoFs. The **Netherlands** room is a quiet room for relaxing, so please respect it.

All floors can be accessed using stairs or the elevators. All rooms and stages are accessible by wheelchairs. In the **Germany** room, there is assistive listening technology with an audio induction loop system.

The entire location is a non-smoking area. Please go outside to smoke.

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Network

Wifi is available throughout all conference facilities.
SSID: **Konzerthaus Besucher** - Password: **F68beWmtT**



Social Media

Unless requested by the speaker, tweeting and other social media activity are actively encouraged. Post early, post often. Twitter is the most active platform in the Galaxy community.

#usegalaxy @galaxyproject

Chat

GCC2019, like the general Galaxy Community, will use Gitter to chat. Gitter requires a GitHub, GitLab, or Twitter account to post. Join the conversation: <https://gitter.im/galaxyproject/gcc>

Meals

Coffee, beverages, and light snacks will be available during breaks. Lunch is provided on the Training Day and all 3 days of the conference. If you have any dietary restrictions, please let us know.

The official conference dinner is on Wednesday evening. A separate registration ticket is required to attend. The dinner venue (Augustiner im Bankepeter) is at walking distance (~ 30 minutes) from the Konzerthaus, but also easily reachable by public transport or car. See the **B** on the map at the end of the program.

Code of Conduct

GCC2019 has a code of conduct that describes what is expected of conference participants. Please read it (<https://bit.ly/gcc2019coc>) and help to make GCC2019 a welcoming and safe environment for all.

There's more online

The list of posters and demos, the full speaker lists for accepted talks and their abstracts are available online at gcc2019.sched.com

Events Overview

Mon 1 July	Tue 2 July	Wed 3 July	Thu 4 July
Training Day 2 tracks about using and administering Galaxy		Conference 3 days of 1 plenary & 2 parallel sessions, 2 sessions of up to 6 parallel trainings, 1 poster & demo session, BoF meetups, and plenty of time for networking	Conf. dinner
Fri 5 July	Sat 6 July	Sun 7 July	Mon 8 July
CollaborationFest: Core 2 days of collaborative work and learning about contributing to the Galaxy ecosystem		CollaborationFest: Encore 2 more days of collaborative work and contributing to the Galaxy ecosystem	



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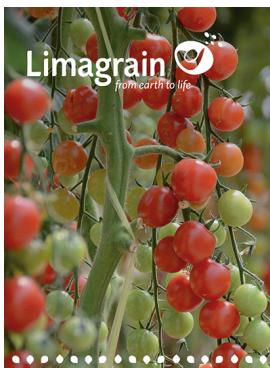
www.freiburgcup.de

Training Day

Monday is a dedicated training day with two tracks, one for learning how to use Galaxy for research, and one for learning how to administer a Galaxy server. Additional training sessions will happen during the 3 following days of the meeting as well.

9:00	Conference Desk Open	
10:00	Using Galaxy Introduction to Using Galaxy (Galaxy 101) . M. Heydarian, J. Hillman-Jackson	Germany
	Admin & Dev Introduction to Galaxy Administration I . M. Cech, E. Afgan, S. Gladman, M. van den Beek, J. Chilton, N. Coraor, H. Rasche	Greece
12:00	Catered lunch	
13:00	Using Galaxy Beyond the Intro: Further Adventures in Using Galaxy . M. Heydarian, J. Hillman-Jackson	Germany
	Admin & Dev Introduction to Galaxy Administration II . M. Cech, E. Afgan, S. Gladman, M. van den Beek, J. Chilton, N. Coraor, H. Rasche	Greece
15:00	Break	
15:30	Using Galaxy Analyzing Large / Complex Experimental Designs with Galaxy . D. Blankenberg, M. van den Beek, M. Heydarian, J. Hillman-Jackson	Germany
	Admin & Dev Introduction to Galaxy Administration III . M. Cech, E. Afgan, S. Gladman, J. Chilton, N. Coraor, H. Rasche	Greece
17:30	Dinner on your own & Birds-of-a-Feather	

During the entire day, check out also **BeerDEcoded, Here and Now!** and the **Nanopore Loading Zone!** in the **Italy** room.



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Conference Days

The conference will be from Tuesday 2 July to Thursday 4 July. Each day will have 1 plenary & 2 parallel sessions with talks, 2 sessions of up to 6 parallel trainings, 1 poster & demo session, BoF meetups, and plenty of time for networking. The conference dinner will be on Wednesday evening.

Tuesday 2 July - Talks I

8:00	Conference Desk Open	
9:00	Talks - 1 plenary track	
	Plenary. Moderator: B. Grüning	Greece
9:00	Opening and Welcome. A. Erxleben, B. Grüning	
9:10	Invited Talk Evolution of X chromosome recognition during Drosophila Dosage Compensation. C. I. Keller Valsecchi	
9:40	Galaxy Australia - inside the national vision of a data commons G. Price	
10:00	A Machine Learning Tool Suite for Galaxy. J. Goecks	
10:20	An Update on Galaxy Workflows: More Accessible, Expressive, Robust, and Scalable. J. Chilton, M. van den Beek	
10:30	Break & Sponsors	
11:00	Talks - 2 parallel tracks	
	Admin & Dev. Moderator: H. Rasche	Greece
11:00	GalaxyCloudRunner: Streamlined Cloud Bursting for Galaxy. N. Goonasekera	
11:07	Laniakea: A Galaxy-on-demand Provider Platform Through Cloud Technologies. M. A. Tangaro	
11:27	Enabling Single Sign-On for Multiple Galaxy Instances. E. Afgan	
11:34	How - And How not - to manage successful local Galaxies. P. Mabon	
11:54	Building a Pulsar Network across Europe. G. Cuccuru	
	Outside the Genome & Community. Moderator: Y. Le Bras	Germany
11:00	Galaxy Computational Chemistry. C. Barnett	
11:20	Climate Analysis with Galaxy. A. Fouilloux	
11:40	Galaxy Image Analysis: Web-based microscopy image analysis and cellular phenotyping. T. Wollmann	
12:00	Lunch & Birds-of-a-Feather	

Tuesday 2 July - Trainings

13:20

Training - 6 parallel workshops

Epigenetics.

ChIP-seq data analysis. L. Rabbani, D. Ryan

Italy

EWAS data analysis for population epigenetics integrated into Galaxy. K. Poterlowicz

France

Admin & Dev.

How to create a Galaxy Tool. J. Chilton, N. Soranzo

Greece

Variation, Metagenomics & Assembly.

Variant calling I - from sequenced reads to variant lists.

Spain

W. Maier

16S analysis with Mothur. S. Hiltemann

Belgium

Misc.

Quality control of HTS data

Germany

14:50

Poster, Demos & Sponsors

15:50

Training - 5 parallel workshops

Epigenetics.

Hi-C analysis. J. Wolff, L. Rabbani

Italy

Admin & Dev.

Scripting Galaxy through BioBlend. N. Soranzo, M. van den Beek

Greece

Variation, Metagenomics & Assembly.

Variant Calling II - causative variant discovery.

Spain

W. Maier

Metatranscriptomics & multi-omics microbiome analysis.

Belgium

T. Griffin, B. Batut, R. Sajulga, P. Jagtap

Misc.

Machine learning with Galaxy. A. Kumar, J. Goecks

Germany

17:20

Group pictures



Tuesday 2 July - Talks II

17:30

Talks - 2 parallel tracks

Epigenetics. Moderator: D. Ryan	Greece
17:30 HiCExplorer 3: A toolbox for Hi-C data analysis. J. Wolff	
17:50 Histone Deacetylases 1/2 In Microglia Function During Development And Neurodegeneration. M. Frosch	
17:57 Analysis and visualization of the human cardiac myocyte epigenome using Galaxy. R. Gilsbach	
Outside the Genome & Community. Moderator: A. Fouilloux	Germany
17:30 Using Galaxy for Creation and Execution of Text Mining Workflows in the OpenMinTeD platform. D. Galanis	
17:50 To Better Benefit from Shared Tasks in Biomedical Text Mining. M. Ba	
17:57 The LAPPs Grid/Galaxy Platform for Mining Scientific Publications. A. Mahmoud	
18:17 Infrastructure for Healthier Living: Galaxy at Quadram Institute Bioscience. T. Le Viet	
10:18 How Usable is Galaxy? A Usability Evaluation of Galaxy. N.-H. Truong	
18:30	Dinner on your own & Birds-of-a-Feather

Wednesday 3 July - Talks I

8:00

Conference Desk Open

9:00

Talks - 2 parallel tracks

Transcriptomics & Genomics. Moderator: A. Syme	Germany
9:00 Invited Talk	
Pou5f3, SoxB1 and Nanog control the Zygotic Genome Activation in Zebrafish. M. Veil	
9:30 Gene Expression Analysis of In vitro Anti-filarial Activity of Natural and Synthetic Sesquiterpene Lactones from the Plant Neurolaena lobata. L. Perez-Perez	
9:37 Single-cell RNA Analysis in Galaxy on 10X Datasets. M. Tekman	
9:57 Biology-driven classification of Single-Cells RNAseq data in Galaxy. C. Antoniewski	
10:17 MicroArray Data Analysis Under Galaxy. T. Bensellak	
10:24 Improving Transcriptome Analysis with Molecular Indices and Galaxy. B. W. Langhorst	

Outside the Genome & Community

Epigenetics

Variation, Metagenomics & Assembly

Transcriptomics

Proteomics & Metabolomics

Misc

Admin & Dev

Wednesday 3 July - Talks I

9:00

Talks - 2 parallel tracks

- Admin & Dev. Moderator: B. Langhorst Greece
- 9:00 **Containerizing Galaxy server as a Singularity application on HPC clusters for GenAP.** D. Morais
 - 9:20 **Galaxy on Kubernetes: where we are and future challenges.** P. Moreno
 - 9:40 **A Minimal Docker Image for Galaxy.** S. Golitsynskiy
 - 9:47 **CVMFS-CSI for Galaxy: Efficient Access to Read-only Data in Kubernetes.** A. Mahmoud
 - 9:54 **gxadmin: usegalaxy.* administration wisdom.** H. Rasche
 - 10:14 **Galaxy container for Hinxton Single Cell Interactive Analysis Portal (HiSciAP).** J. Manning

10:30

Break & Sponsors

11:00

Talks - 2 parallel tracks

- Transcriptomics & Genomics. Moderator: A. Bhardwaj Germany
- 11:00 **Aequatus.js: a plugin to visualise gene trees in Galaxy.** A. Thanki
 - 11:07 **Visual Refinement of Genome Annotations with Apollo in a Community Environment.** N. Dunn
 - 11:27 **Architectural and Systems Improvements to G-OnRamp, a Collaborative Eukaryotic Genome Annotation Platform.** L. Sargent
 - 11:34 **ChiRA: an integrated framework for Chimeric Read Annotation.** P. Videm
 - 11:54 **Training experience on "Data analysis and interpretation for clinical genomics" using Galaxy.** G. Cuccuru

- Admin & Dev. Moderator: D. Morais Greece
- 11:00 **Working Effectively with Remote Data in Galaxy - A Progress Report.** J. Chilton
 - 11:07 **Testing and Visualizing the State of Galaxy Tools and Workflows.** M. Čech
 - 11:27 **Setting up a Galaxy Platform in a HPC Infrastructure for Genomics Implementation into Diagnosis Routines for a Health Reference Center.** M. Juliá
 - 11:34 **RealTimeTools: Integrating, Customizing, and Accessing UI-based Tools in Galaxy.** D. Blankenberg
 - 11:54 **Creating a Universe of Galaxies: The UseGalaxy.* Project.** N. Coraor

12:00

Lunch & Birds-of-a-Feather



Did you know? When ordering something to drink, klein (small) means 0,33l and groß (big) 0,5l.

Wednesday 3 July - Trainings & Talks II

13:20

Training - 5 parallel workshops

Transcriptomics & Genomics.

Single cell RNA-seq analysis I. M. Tekman

Germany

The RNA workbench, best practices for RNA and high-throughput sequencing bioinformatics in Galaxy. J. Fallman, F. Eggenhofer

France

Admin & Dev.

Galaxy Code Architecture. J. Chilton

Greece

Misc.

Visualization of HTS data

Italy

Train the Galaxy Trainer. S. Gladman, A. Syme, B. Batut, S. Hiltemann, H. Rasche

Spain

14:50

Poster, Demos & Sponsors

15:50

Training - 5 parallel workshops

Transcriptomics & Genomics.

Single cell RNA-seq analysis II. M. Tekman

Germany

Admin & Dev.

Running Galaxy on Kubernetes. E. Afgan, N. Goonasekera, A. Mahmoud, S. Golitsynskiy

Greece

Visualisation development in Galaxy. A. Guerler, J. Goecks, A. Kumar

France

Misc.

Beyond the Intro: Further Adventures in Using Galaxy?
M. Heydarian

Italy

Making your open source project awesome. Y. Yehudi, B. Batut

Spain

17:30

Talks - 1 plenary track

Plenary. Moderator: F. Coppens

Greece

17:30 Invited Talk

Galaxy Community Update. J. Goecks, D. Blankenberg, A. Nekrutenko, J. Taylor

18:00 **Tool Prediction in Galaxy Workflows using Deep Learning.**
A. Kumar

18:07 **Street Science Community: make science tangible & accessible by bringing it to the "street" with open science workshops.**
T. Müller

18:30

Conference dinner at Augustiner im Bankepeter



Outside the Genome & Community



Epigenetics



Variation, Metagenomics & Assembly



Transcriptomics



Proteomics & Metabolomics



Misc



Admin & Dev

Thursday 4 July - Talks I

8:00	Conference Desk Open	
9:00	Talks - 2 parallel tracks	
	Proteomics & Metabolomics. Moderator: M. Foell	Greece
9:00	Metaproteomics Powered By Metatranscriptomics: Towards a Multi-omic Functional Microbiome Analysis Within Galaxy. P. Jagtap	
9:20	Interactive Galaxy Visualizations for Multi-omics Research. R. Sajulga	
9:27	ProteoRE, a Galaxy-based platform for the annotation and the interpretation of proteomics data in biomedical research. F. Combes	
9:47	Transposon Insertion Sequencing Analysis in Galaxy. D. Lariviere	
10:07	Galaxy Wrapper for MaxQuant. D. Glätzer	
10:24	Application of Halogen Bonding in Molecular and Drug Design Facilitated by a Galaxy Webserver. F. M. Boeckler	
	Outside the Genome & Community. Moderator: B. Batut	Germany
9:00	Invited Talk Data visualisation by citizen science participants: the case of birds and bats monitoring schemes and Galaxy-E. R. Lorririère	
9:30	Galaxy-Bricks a Tool for Data Literacy and Scientific Approach Education in the Context of Citizen Science. S. Bénateau	
9:37	Citizen Science Project in Ecology with the Galaxy-E Platform. B. Yguel	
9:44	Galaxy-E project: 2019 news. Y. Le Bras	
10:04	The ChemicalToolBox - Computational Chemistry in Galaxy. S. Bray	
10:11	Improved Reference Data Management in Galaxy: Towards a Plant Data Analysis Platform. I. Eguinoa	
10:18	Use Galaxy, Right Now! D. Clements	
10:18	Galaxy Publication Library. D. Clements	
10:30	Break & Sponsors	

Restaurant | Bar | Cocktaillounge

Augustiner
im Bankepeter

Thursday 4 July - Talks I & Trainings

11:00

Talks - 2 parallel tracks

Proteomics & Metabolomics. Moderator: P. Jagtap	Greece
11:00 Analysing and organising large-scale metabolome annotation studies with Django, ISA and Galaxy. T. N. Lawson	
11:20 Reproducible and accessible analysis of spatially resolved proteomics and metabolomics data. M. Föll	
11:40 Workflow4Metabolomics: an international computing infrastructure for Metabolomics. G. Le Corguillé	
Variation, Metagenomics & Assembly. Moderator: S. Hiltemann	Germany
11:00 The IRIDA Platform for Microbial Genomics. A. Petkau	
11:20 Combat-tb: Workbench, A Customizable Platform For Variant Discovery And Annotation, Phylogeny Construction And Variant Prioritisation. Z. Mashologu	
11:27 High throughput HIV next generation sequence analysis in Galaxy. D. Bouvier	
11:47 NanoGalaxy: A Galaxy toolkit and workflows for long-read sequencing. W. de Koning	
11:54 MITOLINK: An integrated Web-based Workflow System to Evaluate Genotype-Phenotype Correlations in Human Mitochondrial Diseases. A. Bhardwaj	

12:00

Lunch & Birds-of-a-Feather

13:20

Training - 5 parallel workshops

Proteomics & Metabolomics.

Metabolomics data analysis I. G. Le Corguillé, M. Petera, R. Weber, T. Lawson France

Proteomic data analysis. M. Föll, M. Fahrner, M. Stillger Belgium

Variation, Metagenomics & Assembly.

Assembly, annotation and analysis of bacterial genomes. Italy
D. Larivière, A. Syme, S. Gladman

Admin & Dev.

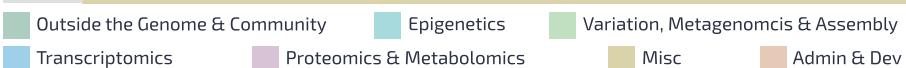
CVMFS and Pulsar. H. Rasche, S. Gladman, N. Coraor, G. Cuccuru Greece

Outside the Genome & Community.

Import, handle, visualize and analyze biodiversity data in Galaxy. Y. Le Bras, S. Bénateau Spain

Misc.

Machine learning with Galaxy. A. Kumar Germany



Thursday 4 July - Trainings & Talks II

14:50	Poster, Demos & Sponsors	
15:50	Training - 5 parallel workshops	
	Proteomics & Metabolomics	
	Metabolomics data analysis II. G. Le Corguillé, M. Petera, R. Weber, T. Lawson	France
	MALDI imaging of peptides data analysis. M. Föll, M. Fahrner, M. Stillger	Belgium
	Variation, Metagenomics & Assembly	
	Genomic assembly and data analysis in Galaxy with Nanopore ONT long read sequencing. S. Hiltemann, M. Miladi	Greece
	Admin & Dev.	
	ELIXIR Galaxy AAI	Italy
	Outside the Genome & Community.	
	Populations genomics with RADseq. Y. Le Bras, S. Bénateau	Spain
	Misc.	
	Handling integrated biological data using Python, Jupyter, and InterMine. Y. Yehudi	Germany
17:30	Talks (1 plenary track)	
	Plenary. Moderator: A. Loonie	Greece
17:30	Invited Talk UseGalaxy: Elucidating chromatin biology of mouse cardiomyocytes. S. Nothjunge	
18:00	Galaxy and Training: 2019 updates from the Galaxy Training Network. B. Batut	
18:20	Closing. B. Grüning, A. Erxleben	
18:30	Dinner on your own	

Did you see?

The conference bag is organic and fair: it is made out of high quality organic cotton with a sturdy organic cotton cord and it is certified fair trade and following social standards.



During or after GCC, it can be used as gift packaging, as a bread bag or as a shoe bag.

You do not want to keep it? No worries! Put it in the dedicated box and we will reuse or donate them.

= Galaxy
PROJECT

Publish your articles,
presentations and posters in our
dedicated community space.

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f1000research.com/gateways/galaxy

CollaborationFest

GCC2019 will finish with the CollaborationFest, a multi-day collaborative work event where our community gathers to contribute code, documentation, training materials, and challenging analysis problems and use cases. If you are interested in learning and contributing in an intensely collaborative environment, then the CollaborationFest is for you.

CoFest is split in two parts this year:

Fri & Satu 5-6 July - Core CollaborationFest

There will be lots of collaborative work, but also lots of learning about projects and software. This will be the larger of the two stages and will take place at the Konzerthaus. All you need to attend is an interest and motivation to contribute.

8:00	Conference Desk Open
9:00	Core CollaborationFest
12:00	Lunch
13:00	Core CollaborationFest
18:00	Core CollaborationFest: summary of the day
19:00	Dinner on your own

Sun & Mon 7-8 July - Encore CollaborationFest

The smaller (and dare we say more intense) of the two stages, these two days will focus on collaboration, collaboration, collaboration. It will take place at the Compute Center (10-15 minutes by foot from the Konzerthaus)

8:00	Conference Desk Open
9:00	Encore CollaborationFest
12:00	Lunch on your own
13:00	Encore CollaborationFest
18:00	Encore CollaborationFest: summary of the day
19:00	Dinner on your own



Did you know? A waiter will never ask guest's to pay. You have to order the bill.

Social Events

GCC is one large social event for our community. When you're free, skip checking your email and introduce yourself to the person next to you. You have at least one thing in common - you both have excellent taste in choosing conferences! If you dig deeper, you'll likely find that you have much more in common and maybe shared interests. Many fruitful collaborations have been initiated at a GCC. Strike up a conversation!

Icebreaker

You should have received an icebreaker card with instructions on the back. Your goal is to fill and hand in your card, no later than Wednesday evening. Some prize winners will be drawn randomly from all completed entries on the last joint session.

Conference Dinner

The conference dinner will be on Wednesday evening at Augustiner im Bankepeter. It is within walking distance from the conference center (see the map of Freiburg). You will need a separate registration ticket to attend.

Drink & Dinners on your own

Except for the conference dinner on Wednesday, the dinners are on your own. Some BoFs will happen during the dinners either in the Konzerthaus or in restaurants around. They will be announced.

We also created a map (end of program or online at <http://bit.ly/gcc2019map>) with suggested restaurants and bars in Freiburg. Check out the Gitter channel to find where others go and also post there to coordinate.

Birds-of-a-Feather Meetups

There is no better place than a Galaxy Community Conference to meet and learn from others doing high-throughput data analysis. GCC2019 includes Birds-of-a-Feather (BoF) meetups, which are informal gatherings based on participants' shared interests. BoFs are encouraged throughout GCC2019, particularly during the lunch each day.

If you are interested in a BoF then just show up. The BoFs below were planned when this program was printed. See <http://bit.ly/gcc2019bofs> for the most up-to-date list.

If you want to organize a BoF, see <http://bit.ly/gcc2019createbof> for how to get one going. It's never too late to start a BoF, and once one is proposed the organizers will get the word out about it.

Monday 1 July

17:45

Dinner on your own & Birds-of-a-Feather

Genome Annotation.

TBA

Orga: N. Dunn, H. Rasche

The Computational Chemistry.

TBA

Orga: C. Barnett, B. Gruening, S. Bray

Tuesday 2 July

12:15

Lunch & Birds-of-a-Feather

Art & Craft.

Czech Rep.

Orga: S. Hiltemann, H. Rasche

Using Galaxy in automated production setups.

Italy

Orga: P. Moreno

19:00

Dinner on your own & Birds-of-a-feather

The Freiburg City Tour.

City center

Limited

The Galaxy Training Network.

TBA

Orga: S. Hiltemann, H. Rasche, B. Batut



Did you know? Usually you do not get tap water in restaurants.

Wednesday 3 July

12:15

Lunch & Birds-of-a-Feather

Art & Craft.

Orga: S. Hiltemann, H. Rasche

Czech Rep.

Galactic Visualization!

Orga: A. Thanki, S. Hiltemann, H. Rasche

Italy

Thursday 4 July

12:15

Lunch & Birds-of-a-Feather

Art & Craft.

Orga: S. Hiltemann, H. Rasche

Czech Rep.

Metabolomics: Tools, Resources, and Needs.

Orga: A. Eschenlauer

Italy

Galaxy Containers.

Orga: E. Afgan, N. Goonasekera

France

19:00

Dinner on your own & Birds-of-a-feather

The Freiburg City Tour.

Limited

City center

Intergalactic Utilities Commission (IUC).

Orga: IUC team

TBA

ELIXIR: A DISTRIBUTED INFRASTRUCTURE FOR LIFE-SCIENCE DATA

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- Improves tools and data integration
- Develops a Galaxy cloud infrastructure across Europe
- Improves access and transfer of data
- Promotes FAIR principles in Galaxy
- Expands the Galaxy training provision and develops new training materials

www.elixir-europe.org/galaxy

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Posters

Posters are numbered and arranged consecutively. In addition each poster has an A, B or C before it that indicates which day it will be presented (A = Tuesday, B = Wednesday, C = Thursday) from 14:50 to 15:50. Each poster will be officially presented during one of those sessions.

Posters will remain up for 3 days (Tuesday-Thursday). Please put up your poster on Tuesday morning, and leave it up until the end of the last poster session on Thursday.

The full author lists, affiliations, abstracts and last-minute additions can be found online at <http://bit.ly/gcc2019poster>.

- 4A Improved Reference Data Management in Galaxy: Towards a Plant Data Analysis Platform. I. Eguinoa
- 5B Galaxy In A Large Scale Production Environment. S. Kastens
- 6C Laniakea: A Galaxy-on-demand Provider Platform Through Cloud Technologies. M. A. Tangaro
- 7A Galaxy on Kubernetes: where we are and future challenges. P. Moreno
- 9C Galaxy on Kubernetes. N. Goonasekera
- 10A Building a Galaxy Trusted Server to Ensure Privacy and Ownership in Genomic Research. G. Zhang
- 11B Testing and Visualizing the State of Galaxy Tools and Workflows. H. Rasche
- 12C Galaxy on Site: Flexibility without Tears. A. Eschenlauer
- 13A RealTimeTools: Integrating, Customizing, and Accessing UI-based Tools in Galaxy. D. Blankenberg
- 14B InteractoMIX integration in Galaxy. P. Mirela Bota
- 18C Galaxy container for Hinxton Single Cell Interactive Analysis Portal (HiSciAP). J. Manning
- 19A Galaxy in fields, gardens and greenhouses for better seeds. M. Faubladier, F. Sapet, C. Segard
- 20B Alternative Splicing Analysis: The Silencing of the Human Colon Oxidase Complex. B. Scholtz
- 21C Gene Expression Analysis of In vitro Anti-filarial Activity of Natural and Synthetic Sesquiterpene Lactones from the Plant Neurolaena lobata. L. Perez-Perez



Did you know? When ordering any juice as a Schorle it will be served mixed with sparkling water.

- 22A Knockdown Effects of MAGOHB on Alternative Splicing Via RNA-Seq Analysis. G. Basumata
- 23B miRGalaxy: Galaxy tool for miRNA Analysis of NGS datasets (sRNA-seq). I. Glogovitis
- 24C Improving Transcriptome Analysis with Molecular Indices and Galaxy. B. Langhorst
- 25A Development and Deployment of a Workflow for the Genomic Analysis of *Campylobacter Jejuni*. J. A. Barbero Aparicio
- 26B Transposon Insertion Sequencing Analysis in Galaxy. D. Lariviere
- 27C Dima: Data-driven recommendation for a high-performing imputation algorithm. J. Egert
- 28A LC-MS/MS tool and interactive visualizations integration on Galaxy Workflow4Metabolomics infrastructure. R. Dallet
- 29B A new Galaxy Wrapper for MaxQuant. D. Glaetzer
- 30C Evaluation of tools and workflows for database construction for environmental metaproteomics. V. Jouffret
- 31A Reproducible and accessible analysis of spatially resolved proteomics and metabolomics data. M. Foell
- 32B Predicting Gene Expression from Histone Modifications and Chronological Age by RNA-Seq Data using Galaxy Machine Learning Tools. A. Khataymoori
- 33C Analysis and visualization of the human cardiac myocyte epigenome using Galaxy. R. Gilsbach
- 34A Applying new model for predicting effects of gene variants in epigenetic regulators within Galaxy environment. T. Drljaca
- 35B EpiGeEC allows fast comparison of user datasets with thousands of public epigenomic datasets through Galaxy. J. Laperle
- 39C ARIAWeb: a new web service for automated NMR structure calculation with ARIA. F. Mareuil
- 40A Towards a platform for genomics medicine. W. Maier
- 41B Development and implementation of a Galaxy instance geared towards microbiological applications within an applied public health setting. J. Van Braekel
- 42C The IRIDA Platform for Microbial Genomics. A. Petkau
- 43A HiCExplorer 3: A toolbox for Hi-C data analysis. J. Wolff
- 44B A Newly Opened Galaxy Platform at Clermont Auvergne University. N. Goué



Did you know? Bottles and cans with soft drinks, sparkling water and beer have a deposit and can be handed back in a supermarket.

- 45C NanoGalaxy: A Galaxy toolkit and workflows for long-read sequencing. W. de Koning
- 47B EDAM: the ontology of bioinformatics operations, types of data, topics, and data formats (2019 update). M. Kalas
- 48C Galaxy Genome Annotation Project: Easier Genome Annotation Using Galaxy and GMOD Tools. A. Bretaudeau
- 49A Deployment of Genome Databases for Algae Using Galaxy Genome Annotation. L. Brillet-Guéguen
- 50B Visual Refinement of Genome Annotations with Apollo in a Community Environment. N. Dunn
- 51C Aequatus.js: a plugin to visualise gene trees in Galaxy. A. Thanki
- 55A Mining hot topics in stem cells by combining text mining and scientometrics. X. Wang
- 56B Using Galaxy for Creation and Execution of Text Mining Workflows in the OpenMinTeD platform. D. Galanis
- 57C Climate Analysis with Galaxy. A. C. Fouilloux
- 58A The ChemicalToolBox - Computational Chemistry in Galaxy. S. Bray
- 59B Galaxy-E project: 2019 news. Y. Le Bras
- 60C Galaxy-Bricks a Tool for Data Literacy and Scientific Approach Education in the Context of Citizen Science. S. Bénateau
- 61A A brief overview on how bilille is using Galaxy for sharing knowledge, computational resources & tools. L. Coudrec
- 65B Training experience on “Data analysis and interpretation for clinical genomics” using Galaxy. G. Cuccuru
- 66C Experience of Galaxy training at a biomedical institute. M. Doyle
- 67A Galaxy and Training: 2019 updates from the Galaxy Training Network. B. Batut
- 71B How Usable is Galaxy? A Usability Evaluation of Galaxy. D. Brand
- 72C Science Data Center BioDATEN in relation to the Galaxy Community. J. Bauer
- 76A GATK4+WDL+CROMWELL+DOCKER+SPARK+GALAXY. A. Kumar
- 77B Modulation of Nav1.5 mechanosensitivity by beta1 and beta3 subunits. D. Bouvier
- 78C ppsPCP: A Plant Presence/absence Variants Scanner and Pan-genome Construction Pipeline. M. Tahir Ul Qamar



Did you know? Often it is not possible to pay by card and only cash is accepted.

Demos

Demos are numbered and arranged consecutively. In addition each demo has an A, B or C before it that indicates which day it will be presented (A = Tuesday, B = Wednesday, C = Thursday) from 14:50 to 15:50. Each demo will be officially presented during one of those sessions.

The full author lists, affiliations, abstracts and last-minute additions can be found online at <http://bit.ly/gcc2019demo>.

- 8B GalaxyCloudRunner: Streamlined Cloud Bursting for Galaxy.
N. Goonasekera
- 22A Knockdown Effects of MAGOHB on Alternative Splicing Via RNA-Seq Analysis. G. Basumata
- 32B Predicting Gene Expression from Histone Modifications and Chronological Age by RNA-Seq Data using Galaxy Machine Learning Tools. A. Khanteymoori
- 42C The IRIDA Platform for Microbial Genomics. A. Petkau
- 45C NanoGalaxy: A Galaxy toolkit and workflows for long-read sequencing. W. de Koning
- 50B Visual Refinement of Genome Annotations with Apollo in a Community Environment. N. Dunn
- 55A Mining hot topics in stem cells by combining text mining and scientometrics. X. Wang
- 57C Climate Analysis with Galaxy. A. C. Fouilloux
- 74B Interactive Galaxy Visualizations for Multi-omics Research. R. Sajulga



Did you know? Trash needs to be separated and placed in specific bins: plastic (yellow), paper (blue or green), glass (by color) and residual waste (grey or black).

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The conference is made possible with the help of many volunteers. On behalf of us, thanks go to the following people:

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Did you know? Tip (Trinkgeld) is not included in the bill and 10% is usual.

Anton Nekrutenko
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GCC2019 CollaborationFest

Travel Fellowship

The Galaxy Community Fund offers conference fellowships to students, post-docs, and other early career researchers to attend and present their work at GCC. This year's travel fellowship recipients are:

Christopher Barnett
University of Cape Town, South Africa
Glory Basumata
Indian Institute of Technology
Guwahati, Assam, India
Patricia Mirela Bota
Universitat de Vic (UVic) - Universitat
Central de Catalunya, Vic, Spain
Tamara Drljača
Laboratory for Bioinformatics and
Computational Chemistry, Vinca
Institute of Nuclear Sciences,
University of Belgrade, Serbia
Nadia Goué
Clermont Auvergne University, France

Miguel Juliá
Bioinformatics Unit (BU-ISCI), Core
facility, Health Institute Carlos III
(ISCI), Spain
Ziphozakhe Mashologu
South African Medical Research
Council Bioinformatics Unit, South
African National Bioinformatics
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Cape, South Africa
Lizzette Perez-Perez
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Silver



Bronze



CollaborationFest



Childcare



eLIFE



Hosts



GERMAN NETWORK FOR BIOINFORMATICS INFRASTRUCTURE

Funding



Bundesministerium
für Bildung
und Forschung



Did you know? Water without carbonation is called Stilles Wasser (silent water).

Share ideas and feedback

Got feedback about the conference? Or ideas to make Galaxy great? Share them with us: Right them here, cut the page and pin it on the wall

German Network for Bioinformatics Infrastructure



32 Institutes

250 Researchers

450,000+ Users per Month



Service

100+ Services developed and maintained



200+ Training Courses

4,000+ Participants

Training

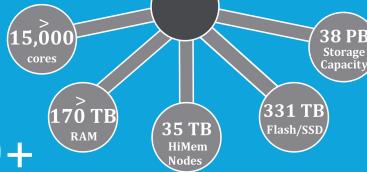


Cloud

200+ Developers

50+ Projects

100,000+ Jobs performed



6 Cloud Centers



Access via



Impact

Bioinformatics Services

- Human Bioinformatics
- Microbial Bioinformatics
- Plant Bioinformatics
- RNA Bioinformatics
- Proteomics & Lipidomics
- Integrative Bioinformatics
- Reference Databases
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German Node in ELIXIR

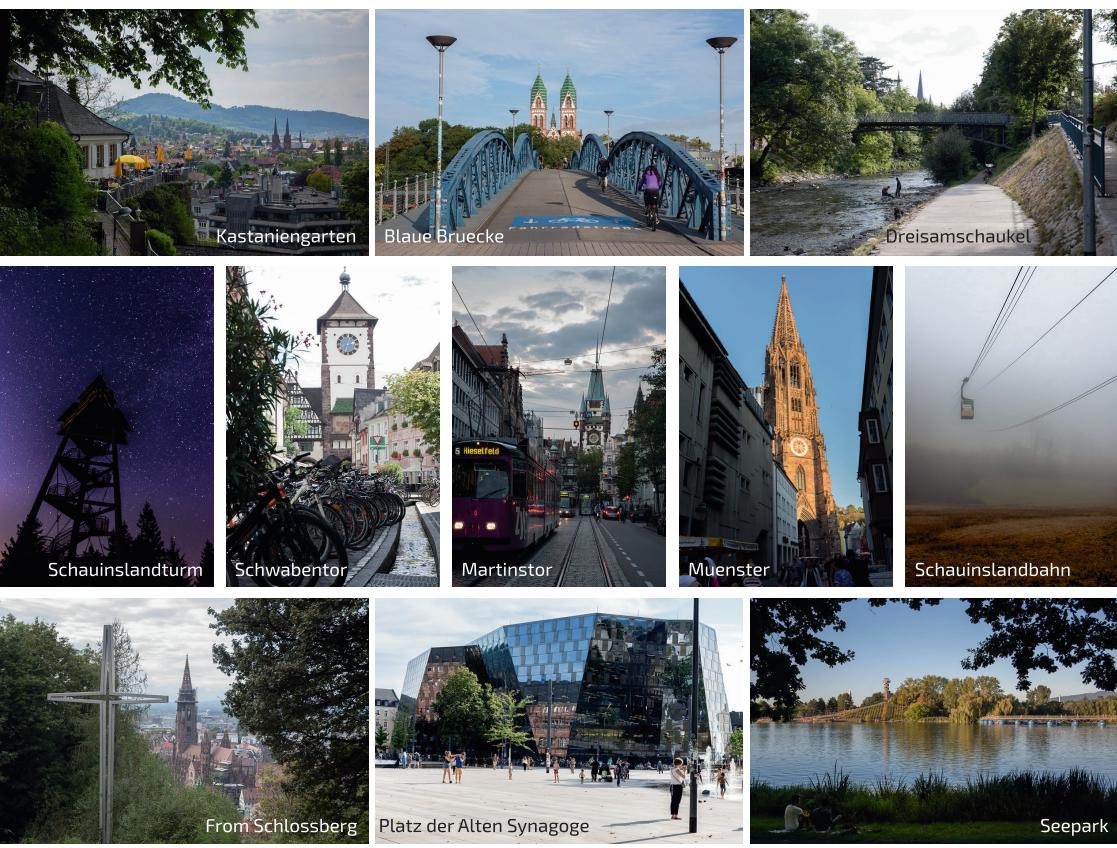


What to do in Freiburg?

Dishes and drinks

Spätzle (a kind of noodle), one of the most famous German dishes, are usually served with cheese and fried onions. **Maultaschen**, either served in a soup or fried in a pan, are also famous in the Freiburg area, even though they are originally from Swabia. To eat a **Lange rote** on the Münstermarkt is a must for non-vegetarian visitors of Freiburg, whereas in a restaurant Wurstsalat is a nice option. When you order it as **Elsässer Wurstsalat**, it will be served with cheese. In nearly every traditional restaurant and Biergarten a broad variety of **Flammkuchen** ist served. And finally, you cannot leave without trying a **Schwarzwalder Kirschtorte** (Black Forest cake).

There are a couple of breweries located in the area, whereas **Ganter**, **Braukollektiv**, **Feierling** and **MartinsBräu** are located directly in Freiburg. You have the choice between dozens of different types.



City Information

The old city centre is accessible via the two medieval city gates **Schwabentor** and **Martinstor**. Don't forget to look down at the mosaic designs that are spread all over the city. **Bächle** are water channels that are fed by the local river Dreisam and had several functions in medieval times like fire protection and open water sewers. Nowadays the Bächle cool down your feet and the city center in summer and the children use them for their boat.



From Schlossbergturm

Freiburger Münster is the Catholic cathedral at the center of the Freiburg. And lucky you, it's the first time in a decade that the tower is free of scaffolding surrounds. A pedestrian square, the **Münsterplatz**, is surrounding the cathedral and some of the most beautiful buildings in Freiburg are located here. Except Sundays, there is a market that trades everything from flowers to handicrafts and local food.

Schlossberg with **Kanonenplatz** is a former fortified hill in the middle of Freiburg leading to scenic viewpoints and castle remains. If you don't want to walk, there are elevators near the Schwabentor and a funicular railway Schlossbergbahn near the city center. The **Schlossbergturm** on the top of the hill offers an impressive 360° panoramic view of the city.

Mundenhof (tip for kids) is a large animal park with native and domestic breeds kept in paddocks. Together with an aquarium, a terrarium and a couple of petting zoo areas, it's one of the best things to do in Freiburg with kids. There is no entry fee, but a donation is welcome. <https://www.mundenhof.de>. Access via bus line 19.

Seepark is one of the most popular parks in Freiburg and offers numerous opportunities for relaxations and outdoor activities, such as pedal boats, a viewing tower, mini golf course, a Japanese garden, a Biergarten, and you can swim in the lake as well. Access via tram line 1.

Schauinsland is the local mountain of Freiburg with 1,284 meter high. It can be reached with Germanys longest cable car and offers a panoramic view over the Schwarzwald area. Access via tram line 2 and bus line 21.

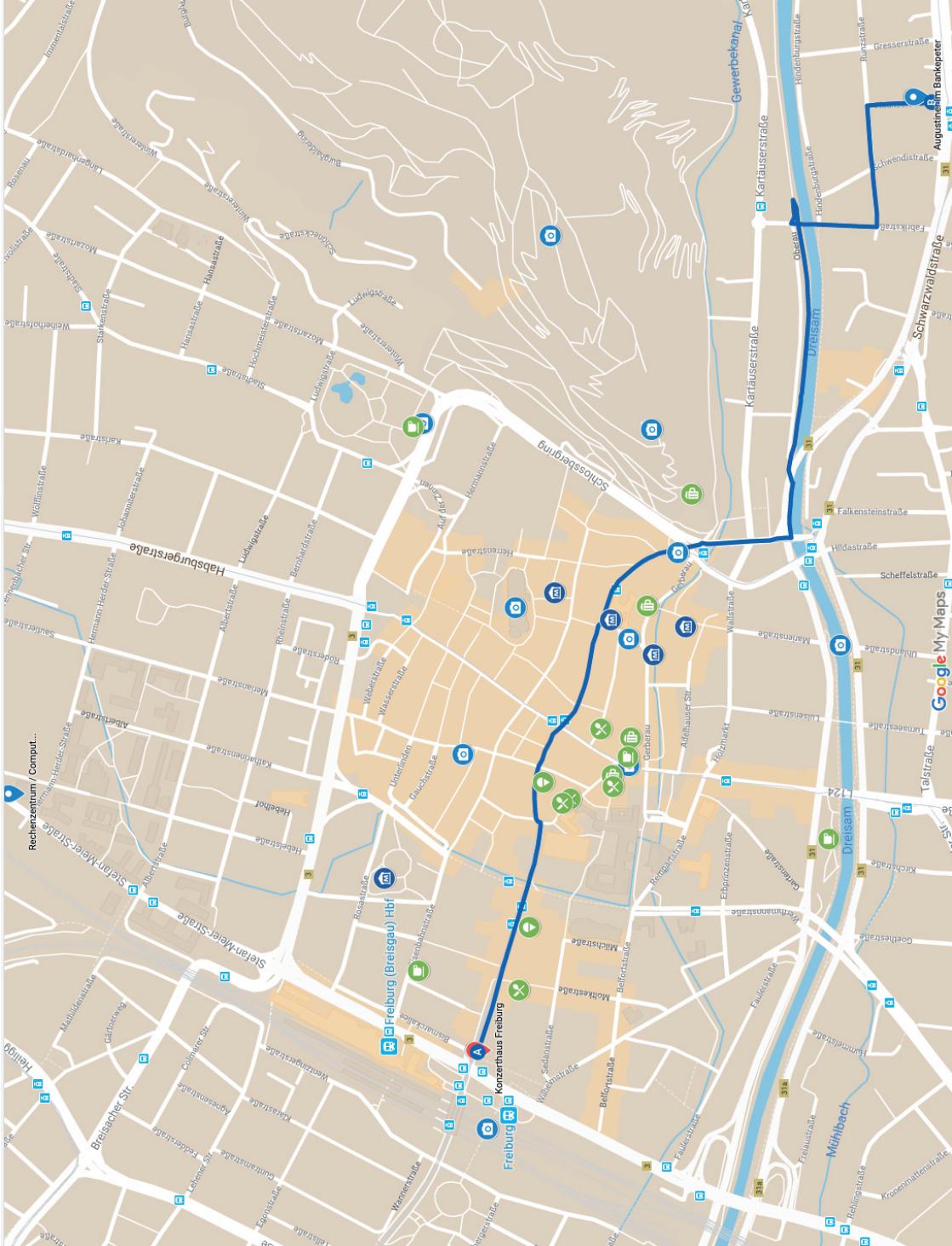
Freiburg challenge

Take 1 picture of at least 5 of the next items and show them to Stephan F. to win a special gift

- Sit or walk on the Blue "Wiwili" Bridge
- Have a swing on the Dreisam
- Walk in the Bächle to cool down
- Do the "I am the king of the world" pose on top of the Schlossbergturm
- Identify the obscene gargoyle at the Freiburg Münster
- Observe aquatic turtles in the Seepark
- Enjoy a refreshment in the Biergarten of Feierling or Kastaniengarten
- Eat a Lange rote or a Tofutaeschle at the Münsterplatz
- Ignore the Säule der Toleranz on the Augustinerplatz
- Find out what is a Herrgottsbescheißerle
- Find out what happens if you accidentally step into a Bächle
- Find out the meaning of the curious markings on the outside wall on the entrance of the Münster

Useful German sentences

Hello, how are you?	Hallo, wie geht's?
Good morning / day / evening / night	Guten Morgen / Tag / Abend / Nacht
Thank you very much	Vielen Dank / Danke
My name is ... and I am from ...	Mein Name ist ... und ich komme aus ...
I am sorry	Es tut mir Leid / Entschuldigung
May I have the menu please?	Kann ich bitte die Speisekarte haben?
May I have the bill please?	Die Rechnung bitte
One beer please.	Ein Bier bitte
One, two, three, four, five, six, seven , eight, nine, ten	Eins, zwei, drei, vier, fünf, sechs, sieben acht, neun, zehn
What time is it please?	Wie spät ist es?
Where is ...	Wo ist ...
How much is ...	Was kostet das
Yes / No	Ja / Nein



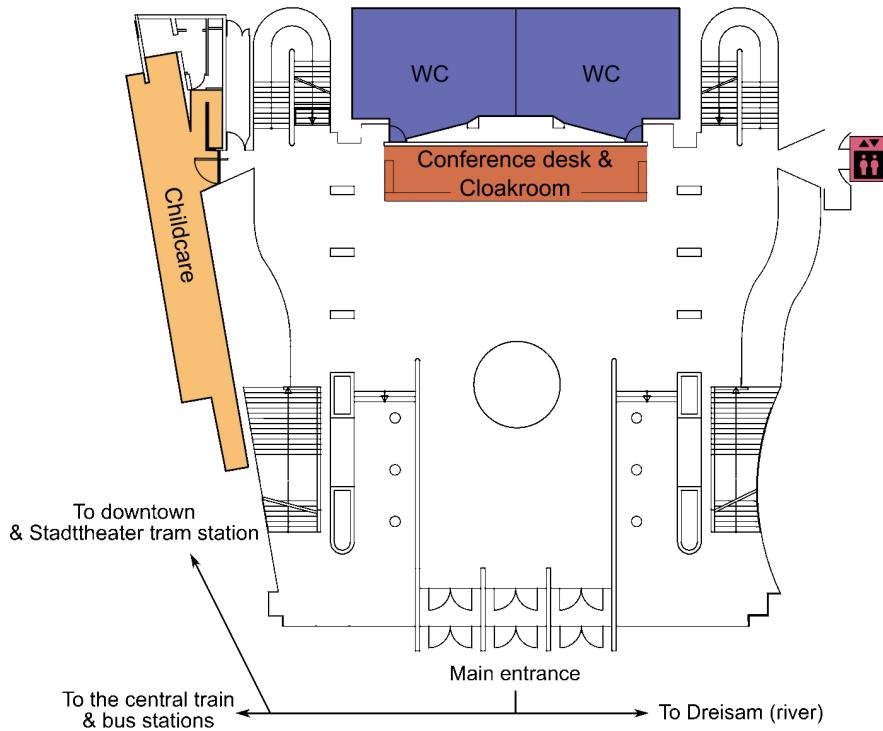
An interactive online map can be found at <http://bit.ly/gcc2019map>

Map: Konzerthaus

In the Konzerthaus, most of the events will take place on the 2nd floor, only the conference desk (where you can always ask for help) and the childcare rooms are located on the ground floor.

The entire location is a non-smoking area. Please go outside or use the balcony to smoke.

Ground floor (EG)



Talks + Training rooms
Greece & Germany

Training rooms
Italy, Belgium, France, Spain

Quiet / BoF rooms
Netherlands, Czech Republic

Conference desk & Cloakroom

Sponsor area

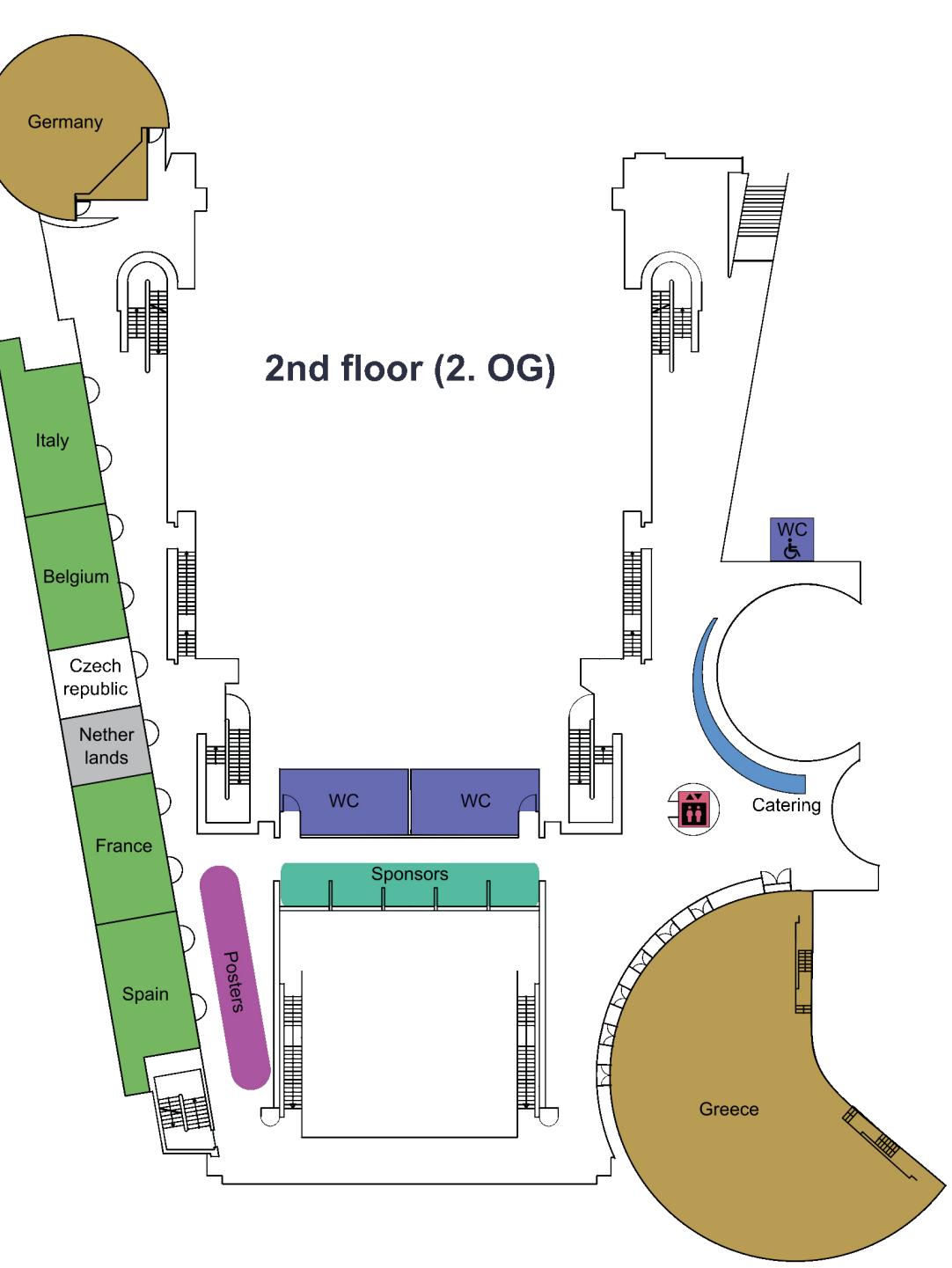
Poster area

Childcare

Catering

Elevator

WC Toilets





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