



# Galaxy PROJECT



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[galaxyproject.org/events/gcc2019](http://galaxyproject.org/events/gcc2019)

@galaxyproject



# Galaxy

## Community

## Conference

Konzerthaus, Freiburg, DE

1-6 July, 2019



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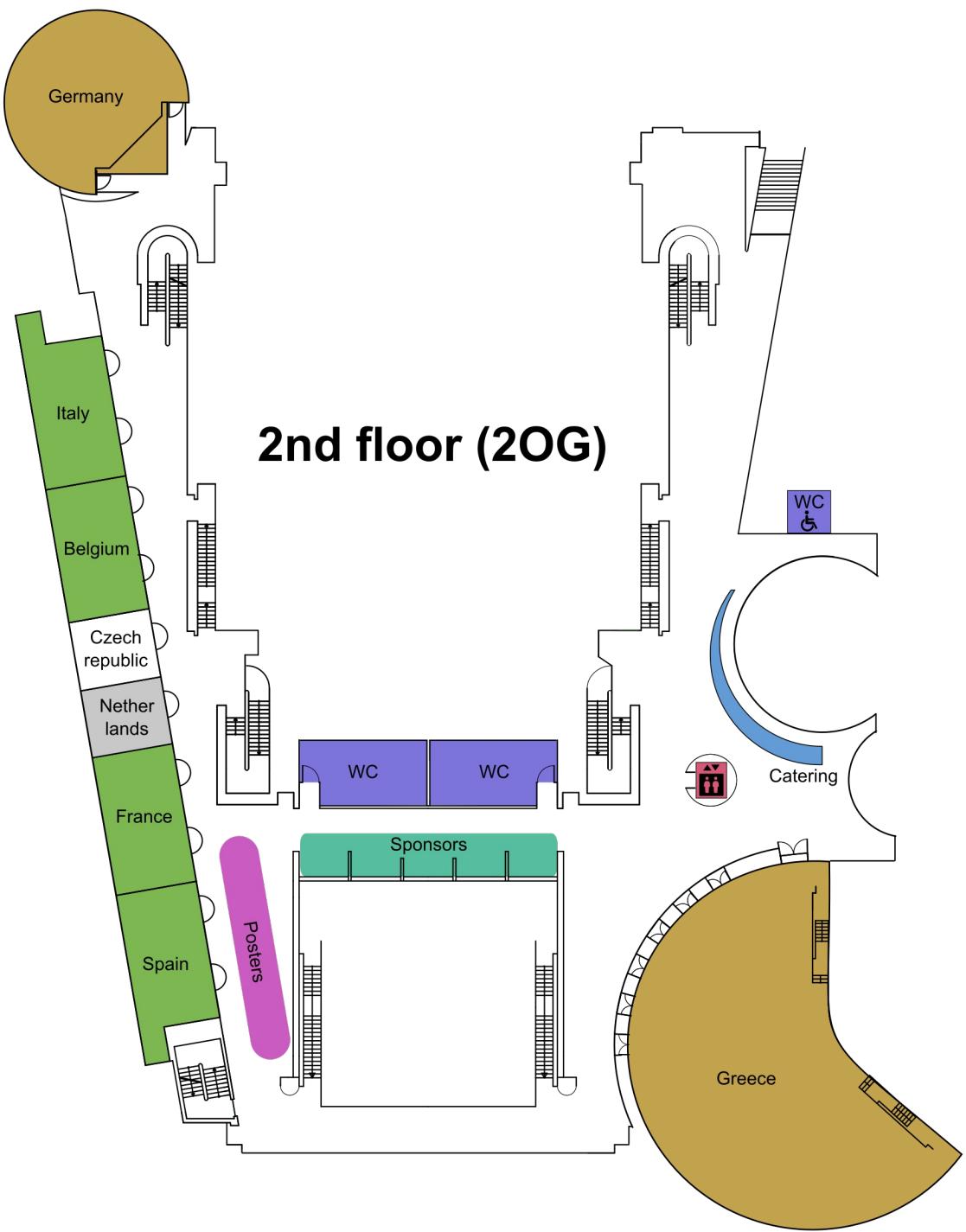
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Talks, posters & demos  
Trainings  
BoF gatherings  
CoFest

A Community event!

## 2nd floor (2OG)

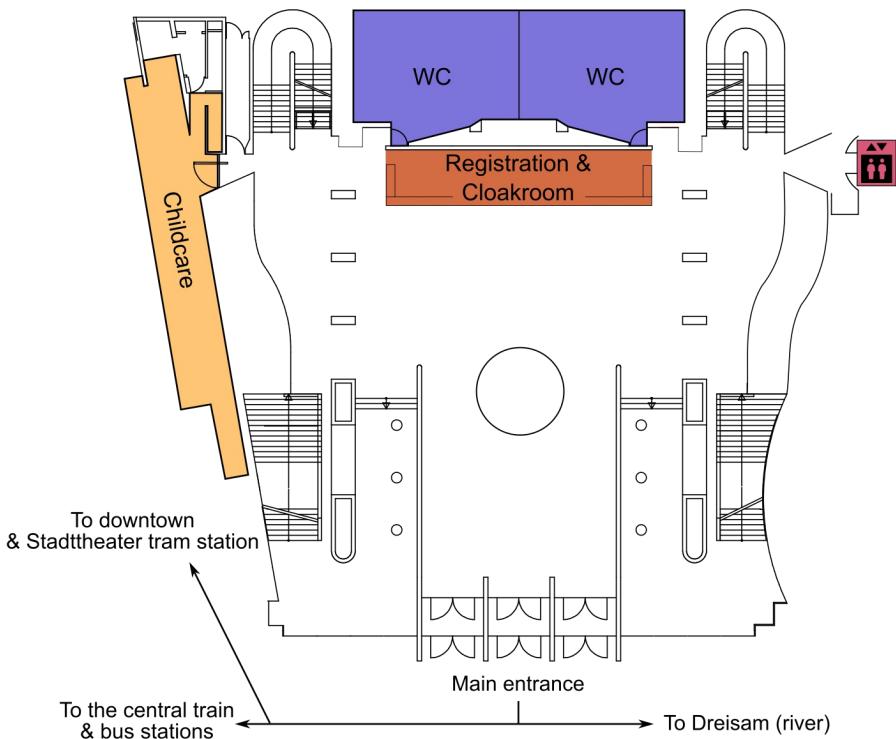


# Map: Konzerthaus

In the Konzerthaus, most of the events will take place on the 2nd floor, only the registration 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

Registration & Cloakroom

Training rooms  
Italy, Belgium, France, Spain

Sponsor area

Catering

Quiet / BoFs rooms  
Netherlands, Czech Republic

Poster area

Elevator

Childcare

WC  
Toilets

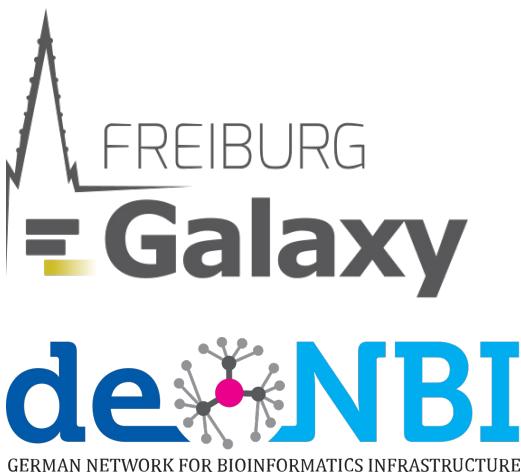
# Willkommen!

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 two up to four days of CollaborationFest. The meeting will have every day 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, it is easily reached via foot, bike, public transportation or car.

Freiburg has an extensive and integrated public transportation network - one ticket (Zone 1 - Preisstufe 1) will take you anywhere in this area. Consider using the Freiburg transport website (<https://www.vag-freiburg.de>) to get routes, schedules, and ticket information.

Nice 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 registration desk (where you can always ask for help) and the childcare rooms are located on the ground floor. The food and the breaks will be served on the 2nd floor. 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 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 relaxing room, 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 an assistive listening technology with an audio induction loop system.

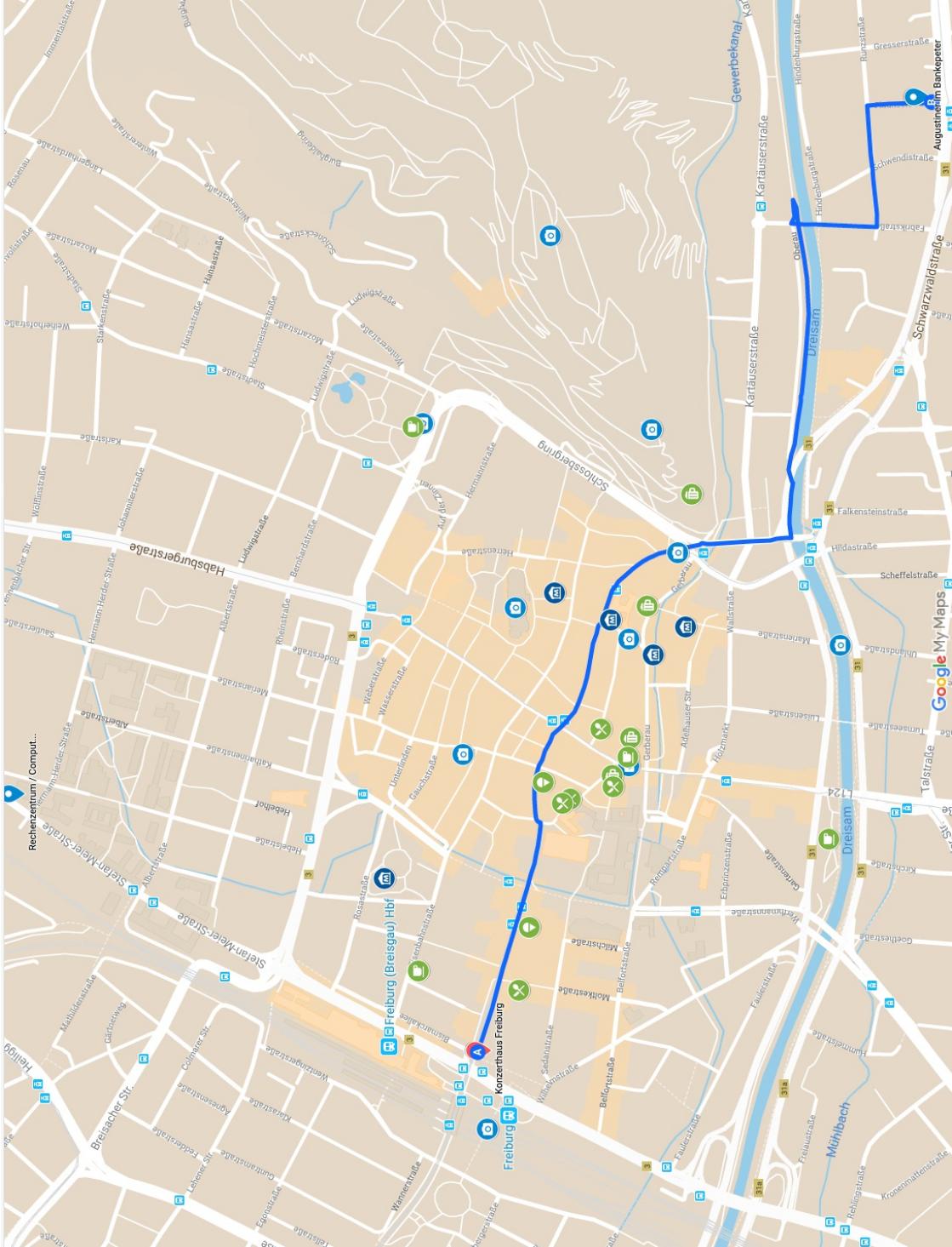
The entire location is a non-smoking area. Please go outside or use the balcony to smoke.

**REGISTER NOW**  
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**Students of the University  
of Freiburg get 30 minutes  
per rental for free!**

Simply enter your e-mail address when registering.



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

# Freiburg challenge

Take 1 picture of at least 5 of the next items and show them to Stephan to (maybe) win a special gift

- Sit or walk on the Blue "Wiwili" Bridge
- Have a swing on the Dreisam
- Walk within 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
- Drink a beer in the Biergarten of Feierling and Kastaniengarten
- Eat a Rote Lange 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
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

# 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, 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 Banker Peter) is at walking distance (20 minutes) from the Konzerthaus, but also reachable by public transport or car. See the X 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 give it a read and help make GCC2019 a welcoming and safe environment for all participants.

## There's more online

The list of posters and demos, the full authors lists for accepted talks and their abstracts are online at [gcc2019.sched.com](http://gcc2019.sched.com)

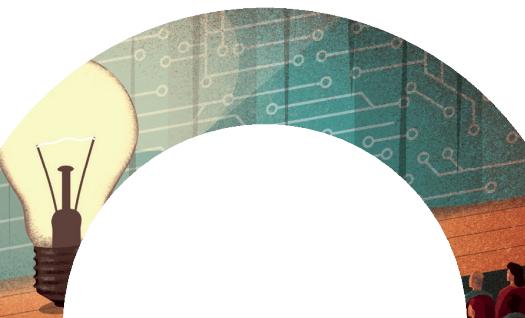
# Events Overview

Mon 1 July	Tue 2 July	Wed 3 July	Thu 4 July
<b>Training Day</b> 2 tracks about using and administering Galaxy		<b>Conference</b> 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	<b>Conf. dinner</b>
Fri 5 July	Sat 6 July	Sun 7 July	Mon 8 July
<b>CollaborationFest: Core</b> 2 days of collaborative work and learning about contributing to the Galaxy ecosystem		<b>CollaborationFest: Encore</b> 2 more days of collaborative work and contributing to the Galaxy ecosystem	



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# City Information

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 grooves 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.



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 constructions sites. 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.

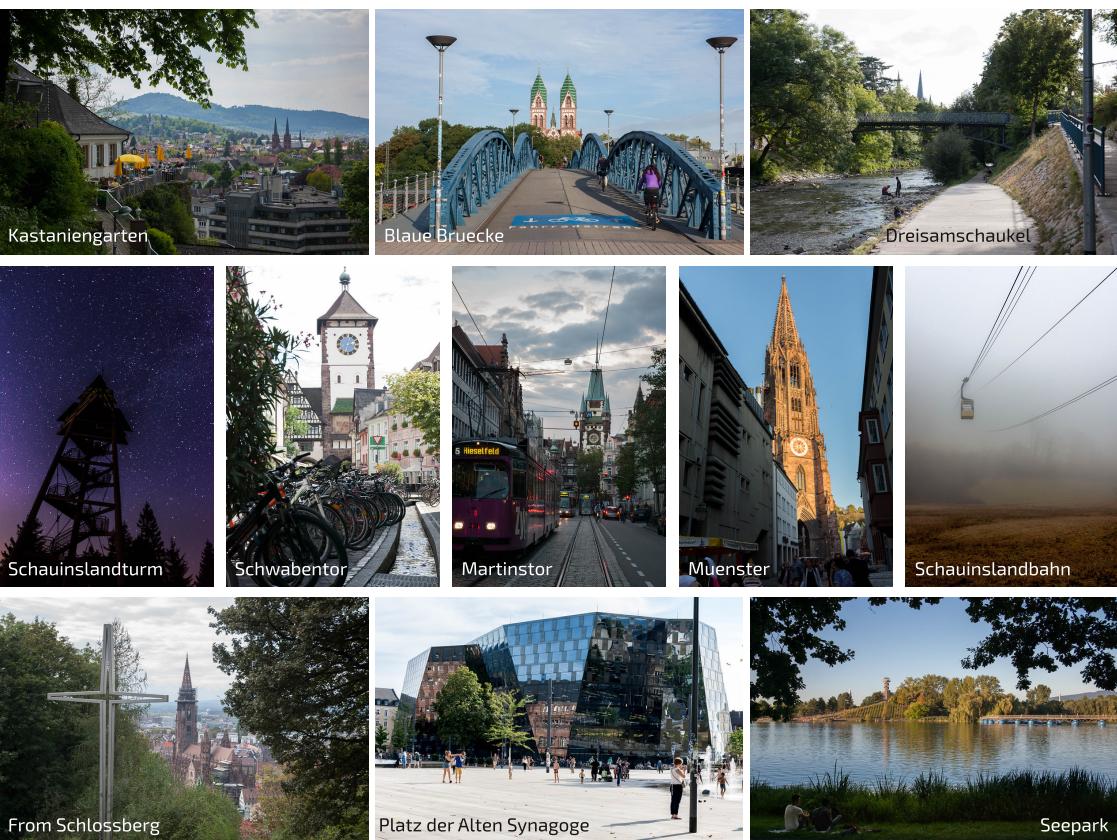
Schauinsland is the Hausberg of Freiburg with 1.284 meter high. It can be reached with Germany's longest cable car and offers a panoramic view over the Schwarzwald area. Access via Tram line 2 and bus line 21.

# What to do in Freiburg?

## Dishes and drinks

Spätzle, 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 Rote Lange on the Münstermarkt is a must for non-vegetarian visitors of Freiburg, whereas in a restaurant Wurstsalat is nice option. When you order it as Elsässer Wurstsalat, it will be served, obviously, with cheese. In nearly every traditional restaurant and Biergarten a broad variety of Flammkuchen ist served. And finally, you cannot leave without trying a Schwarzwälder Kirschtorte.

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



# 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 days of the meeting as well.

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



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

# Sponsors

Special thanks go to all of our sponsors for their generous support and for helping make GCC2019 a great one! The details can be found here <https://galaxyproject.org/events/gcc2019/sponsors/>

## Silver



## Bronze



## CollaborationFest



## Childcare



## Hosts



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## Funding



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für Bildung  
und Forschung



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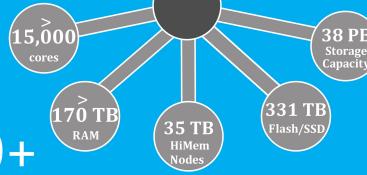


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# Tuesday 2 July - Trainings

13:20

Training - 6 parallel workshops

Epigenetics.

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

Runder Saal

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

Runder Saal

Admin & Dev.

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

Runder Saal

Variation, Metagenomics & Assembly

**Variant calling I - from sequenced reads to variant lists.**

W. Maier

Runder Saal

**16S analysis with Mothur.** S. Hiltemann

Runder Saal

Misc.

**Quality control of HTS data**

Runder Saal

14:50

Poster, Demos & Sponsors

15:50

Training - 5 parallel workshops

Epigenetics.

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

Runder Saal

Admin & Dev.

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

Runder Saal

Variation, Metagenomics & Assembly

**Metatranscriptomics & multi-omics microbiome analysis.**

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

Runder Saal

**Variant Calling II - causative variant discovery.**

W. Maier

Runder Saal

Misc.

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

Runder Saal

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## Tuesday 2 July - Talks II

17:30

Talks - 2 parallel tracks

Epigenetics. Moderator:

Runder Saal

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:

Konf. 9

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

18:24 **Use Galaxy, Right Now!** D. Clements

18:30

Dinner on your own

## Wednesday 3 July - Talks I

8:00

Conference Desk Open

9:00

Talks - 2 parallel tracks

Transcriptomics & Genomics. Moderator:

Runder Saal

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

Transcriptomics

Epigenetics

Proteomics & Metabolomics

Variation, Metagenomics & Assembly

Misc

Admin & Dev

**Anton Nekrutenko**  
Penn State University  
**Krzysztof Poterlowicz**  
University of Bradford  
**Helena Rasche**  
University of Freiburg  
**Devon Ryan**  
Max Planck Institute of  
Immunobiology and Epigenetics

**Beata Scholz**  
University of Debrecen  
**Nicola Soranzo**  
Earlham Institute  
**Peter van Heusden**  
University of the Western Cape  
**Ralf Weber,**  
University of Birmingham

## GCC2019 CollaborationFest

# Organizers

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

## GCC2019 Organising Committee

Bérénice Batut	Anika Erxleben
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Frederik Coppens	Mo Heydarian
VIB, UGent, ELIXIR Belgium	Johns Hopkins University
Monika Degen-Hellmuth	Helena Rasche
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Rolf Backofen	Devon Ryan,
University of Freiburg	Max Planck Institute of Immunobiology and Epigenetics

## GCC2019 Scientific Program Committee

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Indiana University	Max Planck Institute of Immunobiology and Epigenetics
Jeremy Goecks	Pablo Moreno
Oregon Health & Science University	EMBL-EBI

# Wednesday 3 July - Talks I

9:00

Talks - 2 parallel tracks

Admin & Dev. Moderator:

Runder Saal

- 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 **CVMFS-CSI for Galaxy: Efficient Access to Read-only Data in Kubernetes.** A. Mahmoud
- 9:47 **Galaxy container for Hinxton Single Cell Interactive Analysis Portal (HiSciAP).** J. Manning
- 10:07 **gxadmin: usegalaxy.\* administration wisdom.** H. Rasche

10:30

Break & Sponsors

11:00

Talks - 2 parallel tracks

Transcriptomics & Genomics. Moderator:

Runder Saal

- 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:

Konf. 9

- 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
- 11:34 **A Minimal Docker Image for Galaxy.** S. Golitsynskiy

12:00

Lunch & Birds-of-feather

# Wednesday 3 July - Trainings & Talks II

13:20	Training - 5 parallel workshops	
	Transcriptomics & Genomics.	
	<b>Single cell RNA-seq analysis I.</b> M. Tekman	Runder Saal
	<b>The RNA workbench, best practices for RNA and high-throughput sequencing bioinformatics in Galaxy.</b> J Fallman, F. Eggenhofer	Runder Saal
	Admin & Dev.	
	<b>Galaxy Code Architecture.</b> J. Chilton	Runder Saal
	Misc.	
	<b>Visualization of HTS data</b>	Runder Saal
	<b>Train the Galaxy Trainer.</b> S. Gladman, A. Syme, B. Batut, S. Hiltemann, H. Rasche	Runder Saal
14:50	Poster, Demos & Sponsors	
15:50	Training - 5 parallel workshops	
	Transcriptomics & Genomics.	
	<b>Single cell RNA-seq analysis II.</b> M. Tekman	Runder Saal
	Admin & Dev.	
	<b>Running Galaxy on Kubernetes.</b> E. Afgan, N. Goonasekera, A. Mahmoud, S. Golitsynskiy	Runder Saal
	<b>Visualisation development in Galaxy.</b> A. Guerler, J. Goecks, A. Kumar	Runder Saal
	Misc.	
	<b>Making your open source project awesome.</b> Y. Yehudi, B. Batut	Runder Saal
	<b>Beyond the Intro: Further Adventures in Using Galaxy?</b> M. Heydarian	Runder Saal
17:30	Talks - 1 plenary track	
	Plenary. Moderator:	Runder Saal
17:30	Invited Talk <b>Galaxy Community Update.</b> J. Goecks, D. Blankenberg, A. Nekrutenko, J. Taylor	
18:00	<b>Tool Prediction in Galaxy Workflows using Deep Learning.</b> A. Kumar	
18:07	<b>Street Science Community: make science tangible &amp; accessible by bringing it to the "street" with open science workshops.</b> T. Müller	
18:30	Conference dinner at Augustiner im Bankerpeter	





# Thursday 4 July - Talks I

8:00

Conference Desk Open

9:00

Talks - 2 parallel tracks

Proteomics & Metabolomics. Moderator:

Runder Saal

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:

Runder Saal

9:00 Invited Talk

**Data visualisation by citizen science participants: the case of birds and bats monitoring schemes and Galaxy-E.** R. Lorriëre

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. Eguinoia

10:18 **How Usable is Galaxy? A Usability Evaluation of Galaxy.** N.-H. Truong

10:30

Break & Sponsors

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# Thursday 4 July - Talks I & Trainings

11:00

Talks - 2 parallel tracks

Proteomics & Metabolomics. Moderator:

Runder Saal

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:

Runder Saal

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-feather

13:20

Training - 5 parallel workshops

Proteomics & Metabolomics

**Metabolomics data analysis I.** G. Le Corguillé, M. Petera

Runder Saal

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

Runder Saal

Variation, Metagenomics & Assembly

**Assembly, annotation and analysis of bacterial genomes.**

D. Larivière, A. Syme, S. Gladman

Runder Saal

Admin & Dev.

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

Runder Saal

Outside the Genome & Community.

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

Konf. 9

Misc.

**Machine learning with Galaxy.** A. Kumar

Runder Saal

# Demos

Demos 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 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>.

- A01 **Galaxy on Kubernetes.** N. Goonasekera
- A01 **GalaxyCloudRunner: Streamlined Cloud Bursting for Galaxy.**  
N. Goonasekera
- A01 **NanoGalaxy: A Galaxy toolkit and workflows for long-read sequencing.**  
W. de Koning
- A01 **ppsPCP: A Plant Presence/absence Variants Scanner and Pan-genome Construction Pipeline.** M. Tahir Ul Qamar
- A01 **The IRIDA Platform for Microbial Genomics.** A. Petkau
- A01 **Visual Refinement of Genome Annotations with Apollo in a Community Environment.** N. Dunn
- A01 **Analysing and organising large-scale metabolome annotation studies with Django, ISA and Galaxy.** T. Lawson
- A01 **Interactive Galaxy Visualizations for Multi-omics Research.** R. Sajulga
- A01 **Tool Prediction in Galaxy Workflows using Deep Learning.** A. Kumar
- A01 **Knockdown Effects of MAGOHB on Alternative Splicing Via RNA-Seq Analysis.** G. Basumata

- A01 **InteractoMIX integration in Galaxy.** P. Mirela Bota
- A01 **A Newly Opened Galaxy Platform at Clermont Auvergne University.**  
N. Goué
- A01 **Alternative Splicing Analysis: The Silencing of the Human Colon Oxidase Complex.** B. Scholtz
- A01 **GATK4+WDL+CROMWELL+DOCKER+SPARK+GALAXY.** A. Kumar
- A01 **Metabolomic investigation of immune cell activation.** A. Louaar
- A01 **Galaxy on Site: Flexibility without Tears.** A. Eschenlauer
- A01 **Experience of Galaxy training at a biomedical institute.** M. Doyle
- A01 **Galaxy In A Large Scale Production Environment.** S. Kastens
- A01 **Development and Deployment of a Workflow for the Genomic Analysis of Campylobacter Jejuni.** J. A. Barbero Aparicio
- A01 **Development and implementation of a Galaxy instance geared towards microbiological applications within an applied public health setting.**  
J. Van Braekel
- A01 **EpiGeEC allows fast comparison of user datasets with thousands of public epigenomic datasets through Galaxy.** J. Laperle

## Thursday 4 July - Trainings & Talks II

14:50	Poster, Demos & Sponsors	
15:50	Training - 5 parallel workshops	
	Proteomics & Metabolomics	
	<b>Metabolomics data analysis II.</b> G. Le Corguillé, M. Petera	Runder Saal
	<b>MALDI imaging of peptides data analysis.</b> M. Föll, M. Fahrner, M. Stillger	Runder Saal
	Variation, Metagenomics & Assembly	
	<b>Genomic assembly and data analysis in Galaxy with Nanopore ONT long read sequencing.</b> S. Hiltemann, M. Miladi	Runder Saal
	Admin & Dev.	
	<b>ELIXIR Galaxy AAI</b>	Runder Saal
	Outside the Genome & Community.	
	<b>Populations genomics with RADseq.</b> Y. Le Bras, S. Bénateau	Konf. 9
	Misc.	
	<b>Handling integrated biological data using Python, Jupyter, and InterMine.</b> Y. Yehudi	Runder Saal
17:30	Talks (1 plenary track)	
	Plenary. Moderator:	Runder Saal
17:30	Invited Talk <b>UseGalaxy: Elucidating chromatin biology of mouse cardiomyocytes.</b> S. Nothjunge	
18:00	<b>Galaxy and Training: 2019 updates from the Galaxy Training Network.</b> B. Batut	
18:20	<b>Closing.</b> B. Grüning, A. Erxleben	
18:30	Dinner on your own	

Did you see?

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



During but mostly 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 worry! Put it in the dedicated box and we will reuse or offer them.

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PROJECT

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

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[f1000research.com/gateways/galaxy](http://f1000research.com/gateways/galaxy)

# CollaborationFest

GCC2019 will finish with the CollaborationFest, a 2 (up to 4) 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 half this year:

## Fri & Sat, 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 this is an interest and willingness to contribute.

8:00	Conference Desk Open
9:00	Core CollaborationFest
12:00	Lunch (on your own?)
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 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

- A01 **Applying new model for predicting effects of gene variants in epigenetic regulators within Galaxy environment.** T. Drljaca
- A01 **HiCExplorer 3: A toolbox for Hi-C data analysis.** J. Wolff
- A01 **Analysis and visualization of the human cardiac myocyte epigenome using Galaxy.** R. Gilsbach
- A01 **Visual Refinement of Genome Annotations with Apollo in a Community Environment.** N. Dunn
- A01 **Lipidome improves predictive ability of subclinical atherosclerosis over traditional risk factors: The Cardiovascular Risk in Young Finns Study.** P. Mishra
- A01 **Reproducible and accessible analysis of spatially resolved proteomics and metabolomics data.** M. Foell
- A01 **Analysing and organising large-scale metabolome annotation studies with Django, ISA and Galaxy.** T. Lawson
- A01 **Interactive Galaxy Visualizations for Multi-omics Research.** R. Sajulga
- A01 **How Usable is Galaxy? A Usability Evaluation of Galaxy.** D. Brand
- A01 **Improving Transcriptome Analysis with Molecular Indices and Galaxy.** B. Langhorst
- A01 **Transposon Insertion Sequencing Analysis in Galaxy.** D. Lariviere
- A01 **Training experience on “Data analysis and interpretation for clinical genomics” using Galaxy.** G. Cuccuru
- A01 **Galaxy and Training: 2019 updates from the Galaxy Training Network.** B. Batut
- A01 **Using Galaxy for Creation and Execution of Text Mining Workflows in the OpenMinTeD platform.** D. Galanis
- A01 **Aequatus.js: a plugin to visualise gene trees in Galaxy.** A. Thanki
- A01 **ARIAWeb: a new web service for automated NMR structure calculation with ARIA.** F. Mareuil
- A01 **LC-MS/MS tool and interactive visualizations integration on Galaxy Workflow4Metabolomics infrastructure.** R. Dallet
- A01 **NGSAP-VC: Variant Calling Implemented as Installable Galaxy Workflows for NGS Data.** A. Kumar
- A01 **miRGalaxy: Galaxy tool for miRNA Analysis of NGS datasets (sRNA-seq).** I. Glogovitis
- A01 **Gene Expression Analysis of In vitro Anti-filarial Activity of Natural and Synthetic Sesquiterpene Lactones from the Plant Neurolaena lobata.** L. Perez-Perez
- A01 **Knockdown Effects of MAGOHB on Alternative Splicing Via RNA-Seq Analysis.** G. Basumata

# 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>.

- A01 **RealTimeTools: Integrating, Customizing, and Accessing UI-based Tools in Galaxy.** D. Blankenberg
- A01 **Galaxy on Kubernetes: where we are and future challenges.** P. Moreno
- A01 **Improved Reference Data Management in Galaxy: Towards a Plant Data Analysis Platform.** I. Eguinooa
- A01 **Infrastructure for Healthier Living: Galaxy at Quadram Institute Bioscience.** T. Le Viet
- A01 **Mining hot topics in stem cells by combining text mining and scientometrics.** X. Wang
- A01 **NanoGalaxy: A Galaxy toolkit and workflows for long-read sequencing.** W. de Koning
- A01 **ppsPCP: A Plant Presence/absence Variants Scanner and Pan-genome Construction Pipeline.** M. Tahir Ul Qamar
- A01 **High throughput HIV next generation sequence analysis in Galaxy.** D. Bouvier
- A01 **The IRIDA Platform for Microbial Genomics.** A. Petkau
- A01 **Galaxy container for Hinxton Single Cell Interactive Analysis Portal (HiSciAP).** J. Manning
- A01 **Galaxy-Bricks a Tool for Data Literacy and Scientific Approach Education in the Context of Citizen Science.** S. Bénateau
- A01 **The ChemicalToolBox - Computational Chemistry in Galaxy.** S. Bray
- A01 **Galaxy-E project: 2019 news.** Y. Le Bras
- A01 **Progerin expression induces a significant downregulation of transcription from human repetitive sequences in iPSC-derived dopaminergic neurons.** W. Arancio

# 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, Clermont-Ferrand, France

**Miguel Juliá**

Bioinformatics Unit (BU-ISCIII), Core facility,

Health Institute Carlos III (ISCIII), Spain

**Ziphozakhe Mashologu**

South African Medical Research Council Bioinformatics Unit,

South African National Bioinformatics Institute,

University of the Western Cape, South Africa

**Lizzette Perez-Perez**

Smith College, United States

# 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 that are informal gatherings based on participants' shared interests. BoFs are encouraged throughout GCC2019, particularly during the flocking sessions each day. These sessions are time set aside specifically for BoF gatherings.

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.

# 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! You can even ask about topics on their badge. 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 Bankerpeter. It is at 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. We 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.

## BoFs

BoFs aren't focused on social interactions, but they are an excellent way to meet other participants that are eager to discuss a common interest. The Arts & Crafts, Hiking, and City tour BoFs, however, are all about relaxing with your fellow participants.