

# The battle of species tree estimation – a coalescent-based approach or concatenation?

University of Freiburg, 28.2–1.3.2020



UNI  
FREIBURG

**Workshop on phylogenetic reconstructions using coalescence  
and concatenation approaches, with short talks and mainly  
hands-on tutorials**

**Invited lecturer | Siavash Mirarab | University of California**

## ORGANISERS

Sabrina Simon | [info@sabrina-simon.com](mailto:info@sabrina-simon.com)  
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## CONTACT & INFORMATION

[systematik@dzg-ev.de](mailto:systematik@dzg-ev.de) | [www.dzg-ev.de/fachgruppen/systematik/aktuelles/](http://www.dzg-ev.de/fachgruppen/systematik/aktuelles/)

# GENERAL

## Arrival

The workshop will be held at the Albert Ludwig University of Freiburg, Germany. The University can be conveniently reached by train, car, aeroplane and/or public city transport. Consult the map for further details. Please consider that parking spaces around the University will be limited and subject to payment.

## Workshop

Given the amount of expected practical training during the workshops, each participant is required to bring a laptop. In order to accurately run the software tools to be used during the workshops, the preferred operating system is Linux or Mac OS. In case you use Windows, please download VMWare or Virtual Box and install a virtual machine with Ubuntu 18.04 which can run on your laptop. For ASTRAL, ASTRAL-Pro and ASTRAL-MP you need Java, git, and either gcc or icc.

## Social evening

The Icebreaker will take place at the Institute of Biology I (Zoology) of the Albert Ludwig University of Freiburg (see map) on Friday, starting at 7 pm. Food and beverages will be provided.

## Addresses and Numbers

Albert-Ludwig University of Freiburg  
Institute of Biology I (Zoology)  
Department of Evolutionary Biology and Ecology (1st floor)  
Hauptstr. 1  
79104 Freiburg, Germany  
Tel.: +49 (0) 761 / 203 2533  
<https://www.bio1.uni-freiburg.de/oeko>

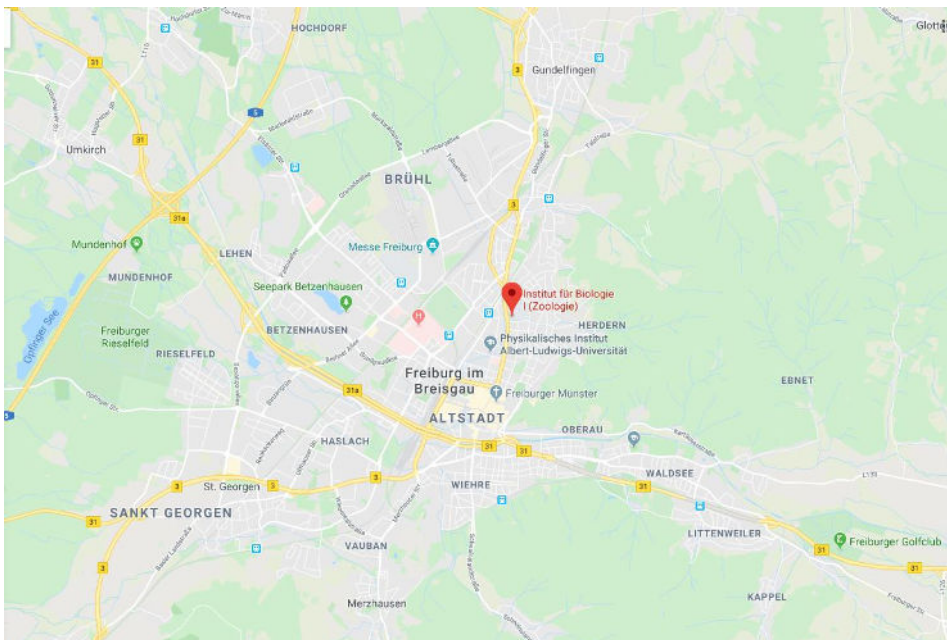
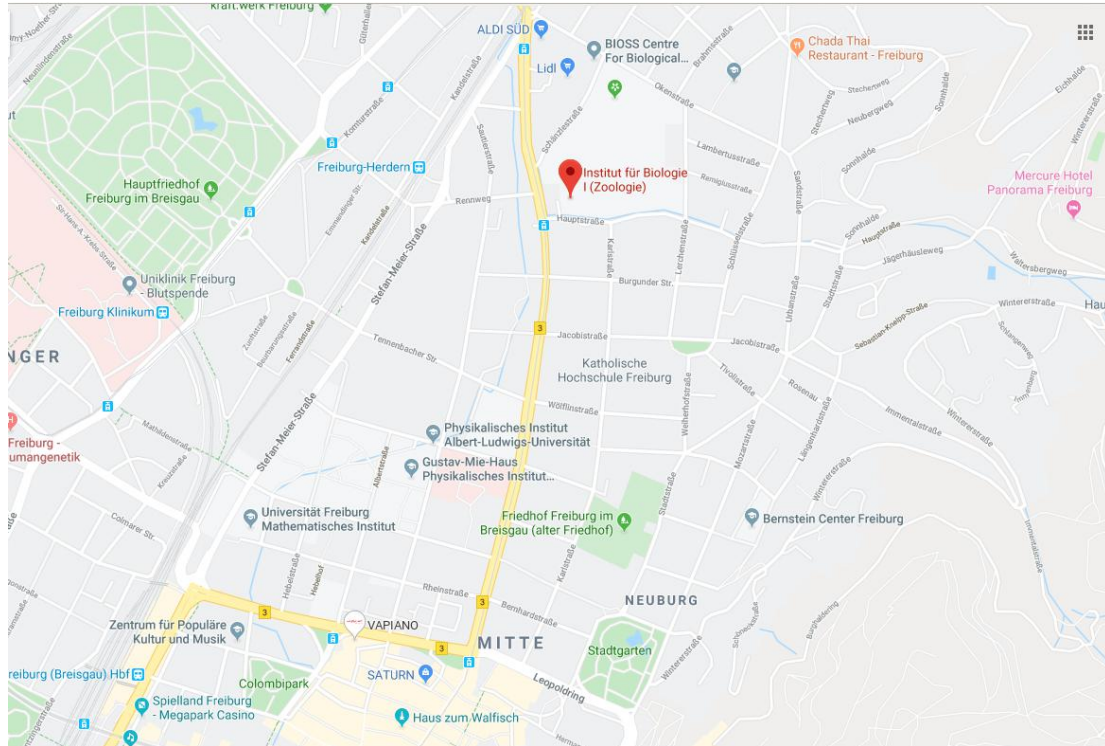
## Persons Responsible

E-mails to: [systematik@dzg-ev.de](mailto:systematik@dzg-ev.de)  
Dr. Sabrina Simon ([info@sabrina-simon.com](mailto:info@sabrina-simon.com))  
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## MAP



### Arrival:

- Freiburg “main station” -> Tram 4 -> five stops to “Freiburg Hauptstrasse”
- <https://www.vag-freiburg.de/fahrplan/fahrplanauskunft>

## SCHEDULE (tentative)

Day and time (tentative)		
Feb 28, 2020	15:00–15:10	Welcome and Opening Remarks ( <i>Sabrina Simon and Manuela Sann</i> )
	15:10–16:00	Introduction round ( <i>Participants</i> )
	16:15–16:45	Introduction to Phylogenomics ( <i>Sabrina Simon</i> )
	17:10–18:30	Software Check and Data Preparation ( <i>Sabrina Simon and Manuela Sann</i> )
	From 19:00	IceBreaker at the Institute of Biology I (Zoology), 1st floor
Feb 29, 2020	09:30–11:00	“Multi-coalescent species tree inference using ASTRAL & Estimate gene trees for each locus” ( <i>Siavash Mirarab</i> )
	11:15–12:15	Hands-on Exercises ( <i>Siavash Mirarab, Sabrina Simon, Manuela Sann</i> )
	12:15–14:00	Lunch Break
	14:00–15:00	Hands-on Exercises (continued) ( <i>Sabrina Simon, Manuela Sann</i> )
	15:30–16:00	Four-cluster likelihood Mapping (FcLM) ( <i>Karen Meusemann</i> )
	16:00–16:30	Quartet Scores ( <i>Manuela Sann, Karen Meusemann</i> )
	16:30–	Round of Discussion
Mar 1, 2020	09:30–10:30	“Scoring trees and alternative support scores: local PP and quartet scores” & “TreeShrink and filter fragmentation” ( <i>Siavash Mirarab</i> )
	10:30–11:30	Hands-on Exercises ( <i>Siavash Mirarab, Sabrina Simon, Manuela Sann</i> )
	11:30–12:30	ASTRAL-Pro, ASTRAL-MP, DiscoVista ( <i>Siavash Mirarab</i> )
	12:30–13:30	Lunch Break
	13:30–15:00	Plenary Discussion an selected presentations / Closing