



## Purpose

- ▶ community getting in touch
- ▶ focusing the core dev team on community needs
- ▶ hands on training
- ▶ in the best case stimulate active contributions to OGS

## Goals

- ▶ solve problems
- ▶ gain knowledge
- ▶ implement prototypes
- ▶ open & finish merge requests
- ▶ have a good time

## Topics Overview

- ▶ Jupyter notebooks
- ▶ MFront material behaviours for phase field
- ▶ Adding a constitutive law to OGS's material library
- ▶ PETSc preconditioners
- ▶ MPI and HDF5 issues
- ▶ Extension of geothermal modelling features
- ▶ Python bindings for OGS's material library

## Introduce Yourself. . .

- ▶ As usual: name, affiliation, research/modelling/programming interests
- ▶ Do you have a specific topic for the hackathon?

# “Open” Topics

## ... for a few people

- ▶ Improving compile times (C++, CLang tooling etc.)
- ▶ Getting an overview how well our test suite covers OGS's feature combinations (“feature matrix”; XML, Python)

## ... for arbitrarily many people

- ▶ Jupyter notebooks (OGS usage, Python)
- ▶ Closing documentation gaps
- ▶ Break my OGS: make OGS crash upon errors in input files and fix those crashes/provide error messages (OGS, C++)
- ▶ Collecting and fixing the most annoying usability sins (OGS, C++)

## GDPR (DSGVO) Information

- ▶ Photos will be taken to be used
  - ▶ in presentations
  - ▶ in reports
  - ▶ on the internet
- ▶ Agreement is voluntary and can be withdrawn later on
- ▶ Please fill in the form, thank you!

# Rooms

- ▶ VisLab (building 7.2, ground floor)
- ▶ Shared office (4 people, building 7.2, 1st floor, room 203)
- ▶ Conference room (>10 people, building 7.1, 1st floor, room 201)
- ▶ Remote (Zoom)
- ▶ Mattermost chat channel “OGS Hackathon 2024”:  
<https://mattermost.opengeosys.org/ogs-devs/channels/ogs-hackathon-2024>  
(available after registration on <https://gitlab.opengeosys.org>)

## Schedule

- ▶ Now until 11:45 – hacking in small groups
- ▶ 11:45 until 12:45 – lunch break (UFZ canteen, self paid, we'll meet in the VisLab and go there together)
- ▶ 12:45 – short gathering in the VisLab/Zoom
- ▶ Then hacking until 17:30
- ▶ 17:30 until 18:00 – concluding the day (VisLab/Zoom)
- ▶ 19:00 dinner in the city of Leipzig
- ▶ Tomorrow 09:00 until 12:00 – 3 hours more for those who can't get enough



# Dinner



- ▶ Starting 19:00 today
- ▶ Dhillons, Reichsstraße 18, 04109 Leipzig
- ▶ <https://www.dhillons-bar.com/>
- ▶ On Google maps: <https://maps.app.goo.gl/MZWWCexRvyY28RuP7>



- ▶ Start: 19:00
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