Welcome

UM-Bridge Workshop 2025

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Chung Ming Loi (Durham University),
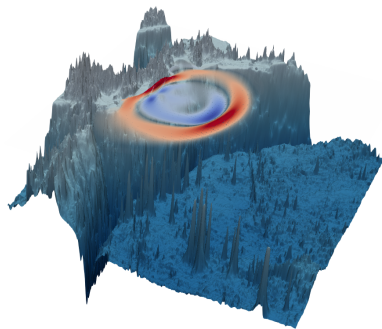Alan Correa (RWTH Aachen)
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Goals

- Get users familiar with UM-Bridge
- Initiate collaborations between UQ and model experts
- Advance the UQ software ecosystem

Overview: Day 1

1. Introduction (Anne)
2. Hands-on tutorial or own projects
3. Containerisation and the benchmark library (Alan Correa)
4. Hands-on tutorial or own projects
5. Cloud and HPC (Chung Ming Loi)
6. Hands-on tutorial or own projects

Overview: Day 2

- Invited talk: William Hornsby, UKAEA The use of turbulence surrogate models in plasma integrated modelling
- Louise Kluge: Bayesian Inference in Expensive Models using MLDA and GP-Surrogates
- Vikas Kurapati: Fused ensembles of dynamic-rupture earthquake simulations to accelerate Bayesian inference
- Invited talk: Amal Mohammed A Alghamdi, Technical University of Denmark Bayesian inversion of CT data to characterize transport in the mouse ear
- Alan Correa: Robustifying Model-Based Engineering Workflows: A Sustainable Approach to Manage Heterogeneity
- Juliette Dubois: Bayesian inversion for submarine earthquakes using acoustic-gravity waves
- Lightning talks (various)
- Invited Talk: Linus Seelinger, Pasteur Labs
- Closing Remarks / Wrap-up

Hands-on tutorial

For practical exercises, you will need a working installation of

- Python
- docker[1] (available at https://www.docker.com/)

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[1]Most tutorial sections are possible without docker, but it will make your life easier.

Using Gathertown

- Use arrow keys / WASD to walk.
- Walk near objects or people to interact automatically. People can only hear you when you are near them or on the podium/by the mic.
- Carpets denote "private" areas, other participants in the same area can hear you.
- To ask questions use the two mics, this will broadcast to the entire room.
- Use Chat for room-wide or private messages. Or use our slack.