



PRACE Course: OpenMP Programming Workshop

ONLINE | 29.11. – 01.12.2022



PRACE Training



LRZ as part of the Gauss Centre for Supercomputing (GCS) belongs to the 14 **PRACE Training Centres** that started in 2012-2017-2020:

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<http://www.training.prace-ri.eu/>

Presenters



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- **Presenters:**

- Dr.-Ing. Michael Klemm (OpenMP ARB, AMD)
- Dr. Christian Terboven (RWTH Aachen)



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Tentative Schedule



	Day 1	Day 2	Day 3
09:00-10:30 CET	Introduction to OpenMP 1	Tasking 1 <ul style="list-style-type: none">• Tasking Intro• Lab 1	GPUs <ul style="list-style-type: none">• OpenMP for Compute Accelerators
10:45-12:15 CET	Hands-on: Introduction to OpenMP	Tasking 2 <ul style="list-style-type: none">• Taskloop• Dependencies• Cancellation• Lab 2	Tools for Perf. and Correctness <ul style="list-style-type: none">• VI-HPS Tools for Performance• VI-HPS Tools for Correctness
13:00-14:45 CET	Introduction to OpenMP 2	Host Perf.: SIMD <ul style="list-style-type: none">• Vectorisation• Lab 3	Misc. OpenMP 5.0 Features <ul style="list-style-type: none">• DOACROSS Loops
15:00-16:00 CET	Hands-on: Introduction to OpenMP	Host Perf.: NUMA <ul style="list-style-type: none">• Memory Access• Task Affinity• Memory Management• Lab 4	Roadmap / Outlook <ul style="list-style-type: none">• Open Discussion• OpenMP 5.1 and beyond <p>End: approx. 16:30 CET</p>

Course Webpage



- All slides and materials will be made available under:

<https://tinyurl.com/homp1w22>

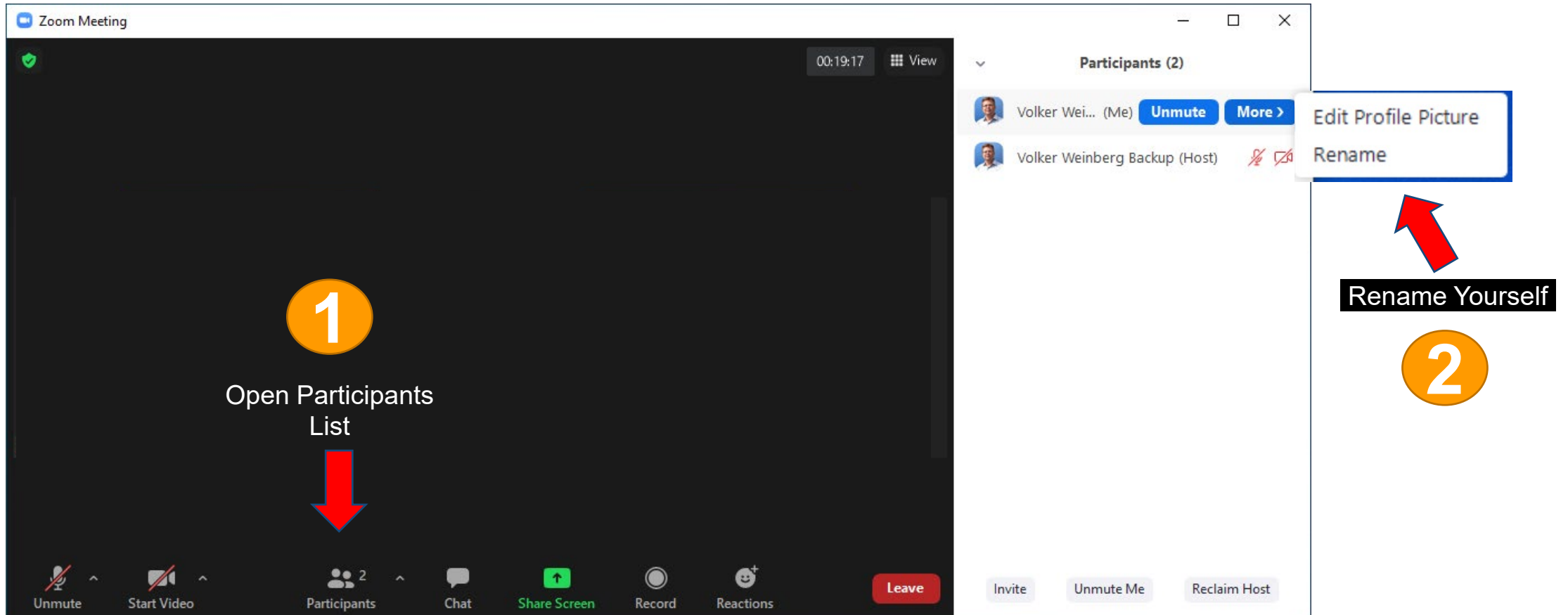


- Further information on:
 - Agenda
 - Slides
 - Exercises
 - Supplementary material

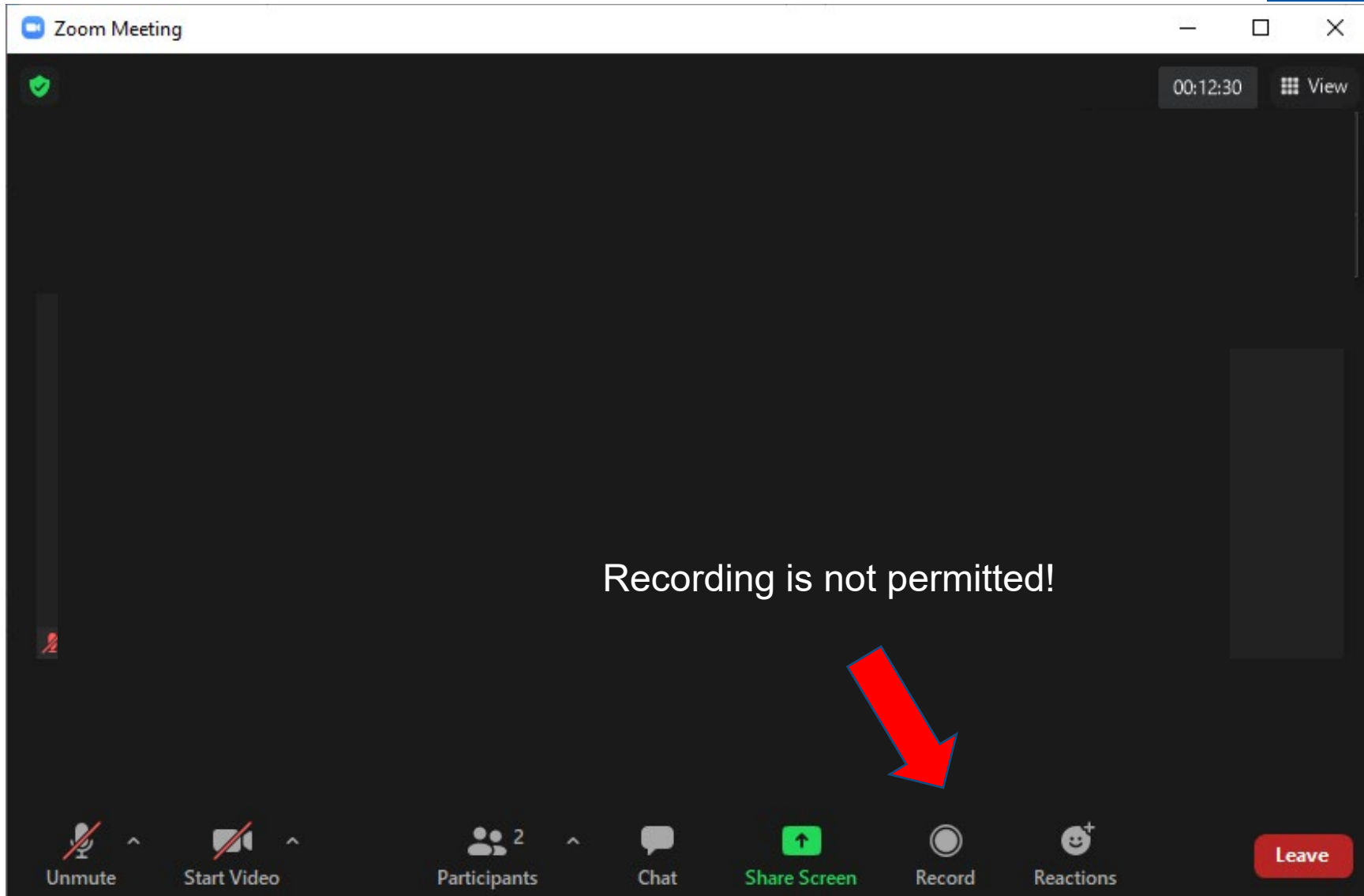


Kindly use “<first name> <last name> (<institute>)” as your screenname.

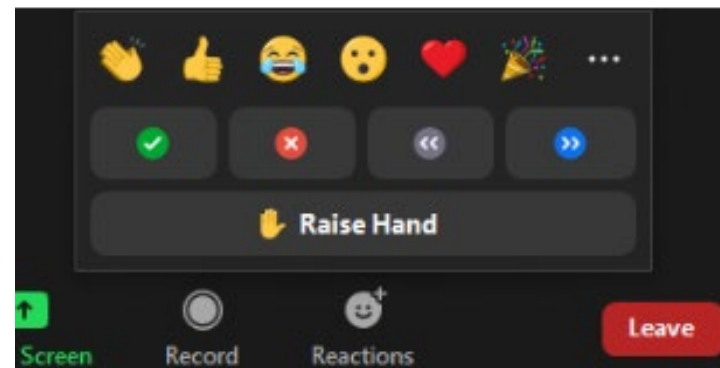
Otherwise you will not receive a certificate of attendance after the course.



The screenshot shows a Zoom Meeting window with a dark theme. In the bottom center of the meeting controls, the 'Participants' icon (two people) is highlighted with a red arrow pointing to it. Above this icon is a large orange circle with the number '1' and the text 'Open Participants List'. To the right, a 'Participants (2)' panel is open, showing two participants: 'Volker Wei... (Me)' and 'Volker Weinberg Backup (Host)'. A blue box highlights the 'More >' button next to the 'Me' participant. A red arrow points from this button to a context menu that contains 'Edit Profile Picture' and 'Rename'. Below the context menu is a black box with the text 'Rename Yourself' and a red arrow pointing to the 'Rename' option. A large orange circle with the number '2' is positioned below the 'Rename Yourself' text.



- Please **raise your hand** if you have questions (of general interest).
- You can also use **chat window** to ask questions.
- If you do not mind, please **show your video when asking questions** to make this course as interactive as possible.
- **Push to Talk:** The Push to Talk feature allows you to remain muted throughout the Zoom meeting and only if you hold down the spacebar you will be unmuted.
- **Instant Feedback:**



And now ...



Enjoy the workshop!