

4th Annual Meeting of EUROfusion HPC ACHs

Date: 27 – 28 October 2026

Place: Max Planck Institute for Plasma Physics (IPP), Boltzmannstraße 2, 85748 Garching, Germany. Building D2, room 436 (seminar room, last floor).

Remote by Zoom: ID: 925-1192-2002 / PW: 013274

<https://zoom.us/j/92511922002?pwd=OFY1cEJ3R0FCRHJ1bjlDQkR1aTY2UT09>

Agenda

27 October 2026, 09:00 – 17:00

09:00–09:10 Roman Hatzky – *Welcome*

09:10–09:20 Report of Team Leader ACH-EPFL – Gilles Fourestey

09:20–11:00 Reports from ACH-EPFL members (Chair: Gilles Fourestey)

09:20–09:45 Mathieu Peybernes – *Soledge3X Code Optimization and GPU Production Computing for the WEST Tokamak*

09:45–10:10 Piyush Panchal – *Improvements for Vlasov Kernel in GENEX*

10:10–10:35 Emily Bourne – *Gysela-X++*

10:35–11:00 Florian Cabot – *Fusion Digital Twin*

11:00–11:20 **Break**

11:20–12:35 Reports from ACH-EPFL members cont. (Chair: Gilles Fourestey)

11:20–11:45 Nicola Varini – *Implicit Solver Performance: Bottlenecks and Optimizations in GBS and Beyond Compute: Communication Profiling and Optimization in FELTOR*

11:45–12:10 Gilles Fourestey – *ASCOT6-GPU physics improvements*

12:10–12:35 Emmanuel Lanti – *LINDNES and SPECTER*

12:35–14:00 **Lunch**

14:00–14:10 Mervi Mantsinen – Report of Team Leader ACH-BSC/CIEMAT

14:10–15:25 Reports from ACH-CIEMAT members (Chair: Mervi Mantsinen)

14:10–14:35 Alejandro Soba – *ACH-BSC work over XTAPAS, Alya and SPICE2 code during 2026*

14:35–15:00 Augusto Maidana – *Enabling Exascale GPU Performance for Fusion Edge Modeling Codes*

15:00–15:25 Xavier Saez – *Progress on BIT1 GPU Porting*

15:25–15:45 **Break**

15:45–17:00 Reports from ACH-CIEMAT members cont. (Chair: Mervi Mantsinen)



15:45–16:10 Federico Cipolletta – *Progress report on work done with CARIDDI and JOREK-DREAM*

16:10–16:35 Joan Vinyals – *Continuous performance monitoring for STELLA*

16:35–17:00 Gaurav Saxena – *Hybrid Parallelization in SOLPS-ITER, (Zoom)*

18:00–20:00 Meeting Dinner* (Gasthof Neuwirt, Münchener Str. 10, 85748 Garching bei München)

* Each participant is responsible for covering his/her own costs.

28 October 2026, 09:00 – 15:00

09:00–09:10 Roman Hatzky – Report of Team Leader ACH-MPG

09:10–10:25 Reports from ACH-MPG members (Chair: Roman Hatzky)

09:10–09:35 Ville-Markus Yli-Suutala – *Progress report on OpenMP offloading in ORB5*

09:35–10:00 Oskar Lappi – *Progress in porting domain-decomposed Monte Carlo to GPUs*

10:00–10:25 Cristian Lalescu – *Acceleration of GrilliX timestep and optimization of GEMPICX*

10:25–10:45 Break

10:45–11:35 Reports from ACH-MPG members cont. (Chair: Roman Hatzky)

10:45–11:10 Tiago Ribeiro – *Multi regions-of-interest (ROI) in REFMUL3*

11:10–11:35 Serhiy Mochalsky – *Benchmarks and validation of the Pitagora HPC system*

11:35–12:30 ASDEX Upgrade tour

12:30–14:00 Lunch

14:00–14:40 Discussion of relevant topics (Chair: Mervi Mantsinen)

14:00–14:20 *Experiences with the Pitagora HPC system*

14:20–14:40 *News from E-TASC*

14:40–15:00 Organisational issues

14:40–14:50 *Next meeting*

14:50–15:00 AOB

15:00 End of meeting