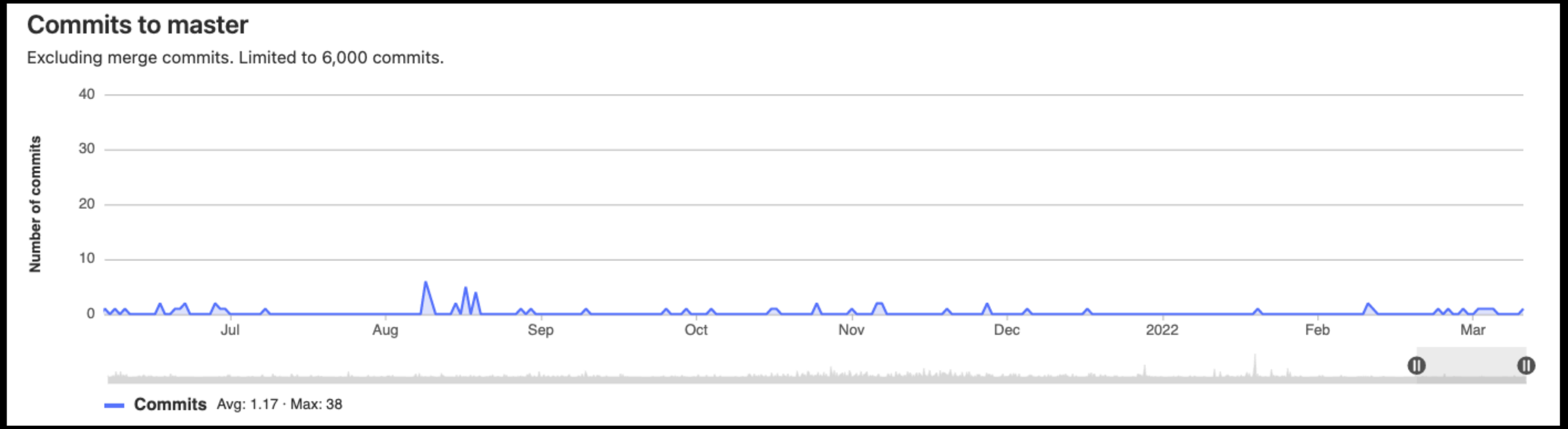
Virtual OPAL Developer Meeting April 2022



Andreas Adelmann (Paul Scherrer Institut)

Content

1. Updates OPAL (A Adelmann)
2. Conferences (A Adelmann)
3. AOB (all)

Updates

- ~~94~~ 97 member in the active mailing list (opal@lists.psi.ch)

At present the focus in large is on:

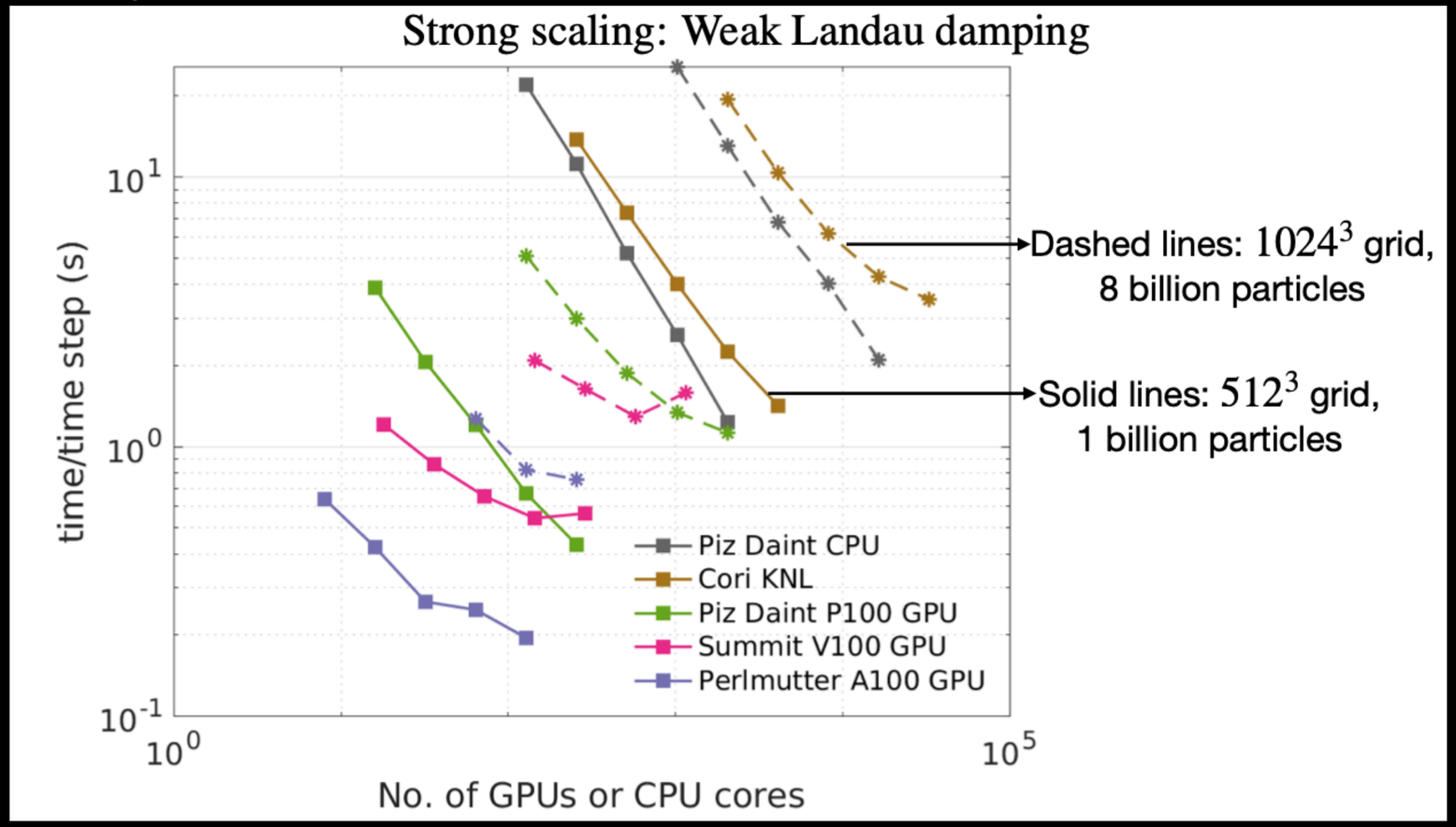
- continue consolidation & code cleanup
- working on bugfixes / feature requests
  - 11 ~~15~~ bugs 19 ~~19~~ feature requests

✱ delayed OPAL paper

Current projects - 1

- P3M in OPAL (IPPL 1.0) (Sri & AA)
- IPPL 2.x (Sri & Matthias)

  ✓ is performance portable
- Ch Rogers
  - FFA modeling (Ring element)
  - pyOPAL
- Sri & AA + MSc student
  - SwissFEL modeling progressing somewhat slow



- PhD project advertised: on Performance Portable Particle In Cell Exascale Maxwell Solver

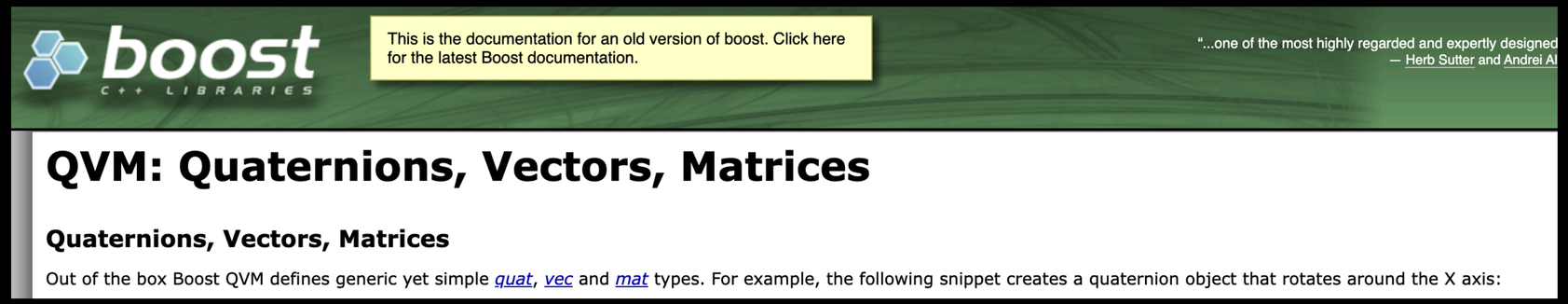
Current projects - 2

- Prepare OPAL for IPPL 2.x (AA)

  ✓ adapt cmake such that IPPL is an external library

  ✓ header file adaption

  - Volontier for replacing Tensor and/in Quaternion class



2. Conferences

- NAPAC

  ✓ Opal for Self-Consistent Start-to-End Simulation of Undulator-Based Facilities (AA et al)

  ✓ Beam Shaping … (N Neveu)

  ✓ OPAL Poster wo 3 page paper

  ✓ OPAL and FFA Modeling

3. AOB

Pedro: interest in RFQ features

Achim: OPAL on M1 working

Sri: will continue on P3M

Arnau: make a feature request for the replacement of the Tenzor class

Nicole: interest in back-tracking at SLAC

Chris: pyOPAL single particle done, lots of local commits w.r.t. FFA modeling