

BLonD Community Meeting

24 March 2023

Gitlab hosting

- All development will move to gitlab (open/ merge pull requests).
- Open Issues and PR will be copied (not sure if automatically).
- Maintain github as mirror. No need to update remote fetch url.
- CI/CD Status:

| OS | Platform | MPI Workers | Status |
|---------|----------|-------------|---------------|
| Linux | CPU | 1 | Gitlab-CI |
| Linux | CPU | many | Gitlab-CI |
| Linux | GPU | 1 | Gitlab-CI |
| Linux | GPU | many | Custom/ Cron |
| Windows | CPU | 1 | Gitab-CI/ VM |
| Windows | GPU | 1 | NA |
| Windows | CPU/GPU | many | Not necessary |
| MacOS | CPU/GPU | 1 | NA |
| MacOS | CPU/GPU | many | Not necessary |

Did

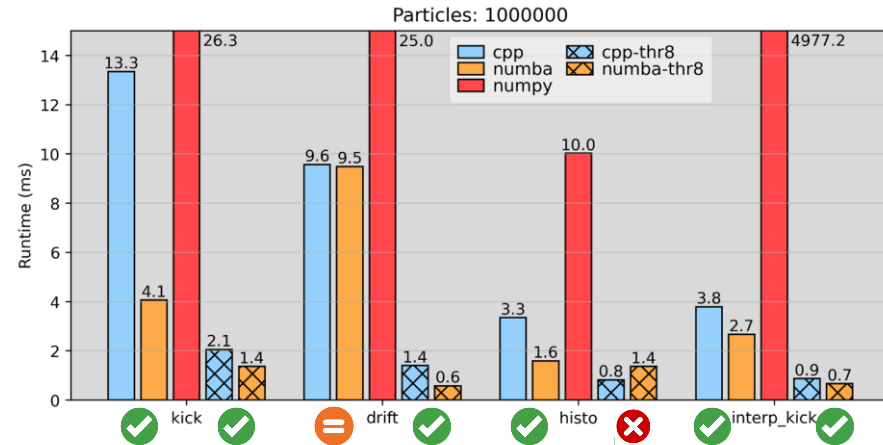
Doing

Will do

??

Summer student for BLoND optimization

- Co-supervision with Danilo
- Selection complete (final list of 10 candidates)
- Can Numba replace the C++ backend?
- Advantages:
 - Remove explicit compiler dependency
 - Simplify installation & distribution
 - Easier to speed-up more code regions
- Disadvantages (complete replacement):
 - Not as low-level control as with C++
 - Especially with multi-threading
 - Not as fine control over compilation
 - No integration with 3rd party libraries



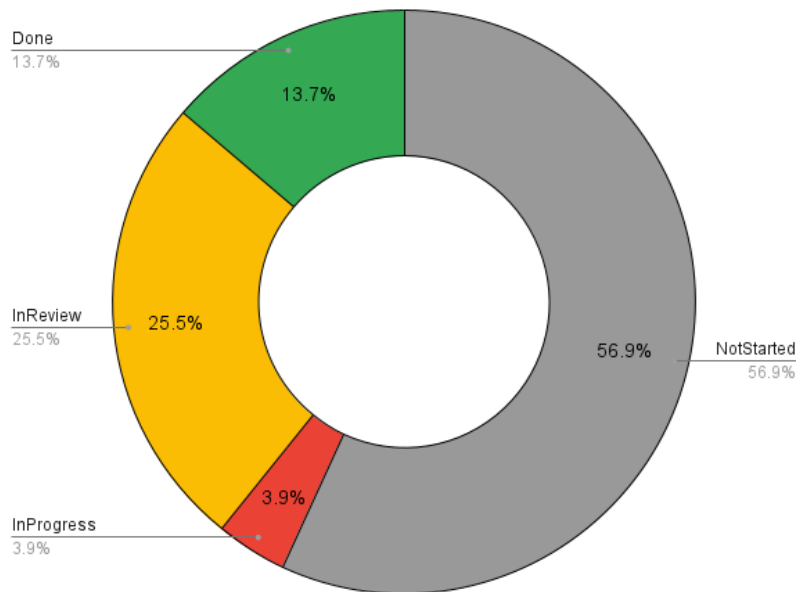
Promising early results:

- 1 thread: 3/4 benchmarks faster, 1 equal
- 8 threads: 3/4 benchmarks faster, 1 slower

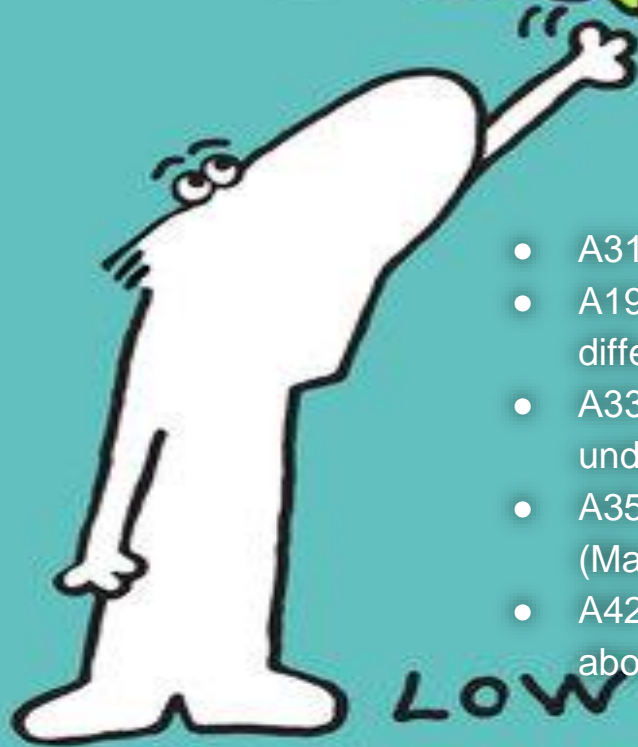
PRAB Submission

- Color-coded remarks (thanks to Alex)
 - Red: In-progress
 - Yellow: Requires review
 - Green: Done
 - Grey: Not started
- A fully answered remark:
 1. Manuscript modification/ addition (with blue font)
 2. Answer to the reviewer.
 3. Reference to location of the modification in the manuscript (Section, paragraph)

Rebuttal letter progress (51 remarks in total)



Fruits of the day fortnight: Updates



- A31: Juan's note has been made public, reference updated.
- A19: The dimensions of the left side and right side of equation (7) are different. Needs to be corrected. (Simon)
- A33: (Synchrotron radiation) The 'empty rf station' is difficult to understand, clarify better. (Ivan, Alice)
- A35: Reference study of the feedback model and the real machine. (Markus)
- A42 & B2: Reference new Melody paper, provide more explanation about Fig. 13 (Ivan, Leandro)

LOW HANGING FRUIT