

# BLoND Meeting

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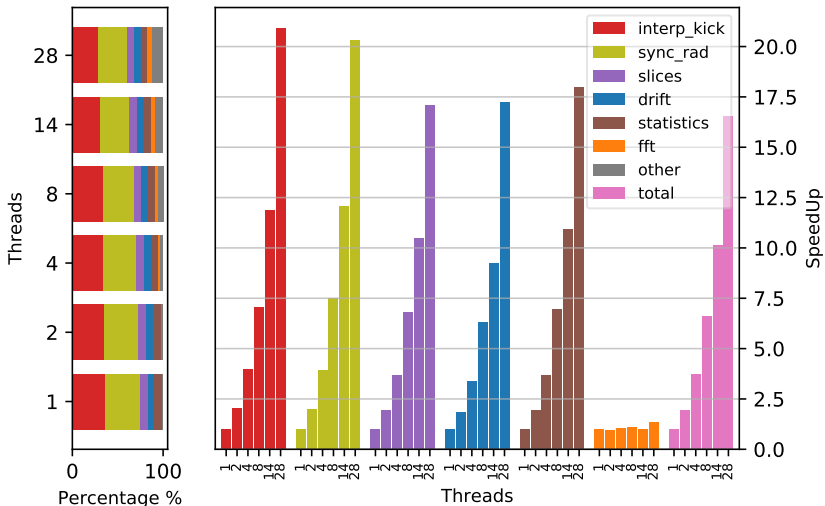
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# Packaging BLoND

## Changes needed

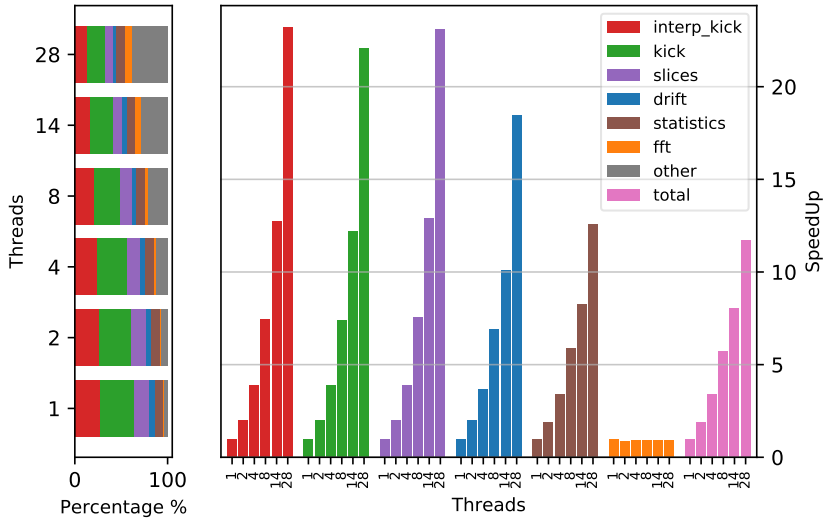
- All the modules will be encapsulated under a blond directory (blond, BLoND or BLOND?).
- `setup_cpp.py` → `setup.py` and build+install with `python setup.py install`. Other available options : `build`, `clean`, `cleanall` + custom commands. (improved build, no need to code separately for windows/linux).
- Should we place all C/C++ modules in a single dir or separated?
- Same for the compiled shared libraries (we be combined to 1 library).
- Need to prepend to every import statement the "blond." prefix. (blond, BLOND or BLoND?)
- Using the `__init__.py` files we can have everything imported with something like `from blond import *`. Do we want that?
- To switch active blond distro: 1) main file directory, 2) `PYTHONPATH`, 3) current working dir, 4) site-packages.

# FCCEe test-case (Ivan)



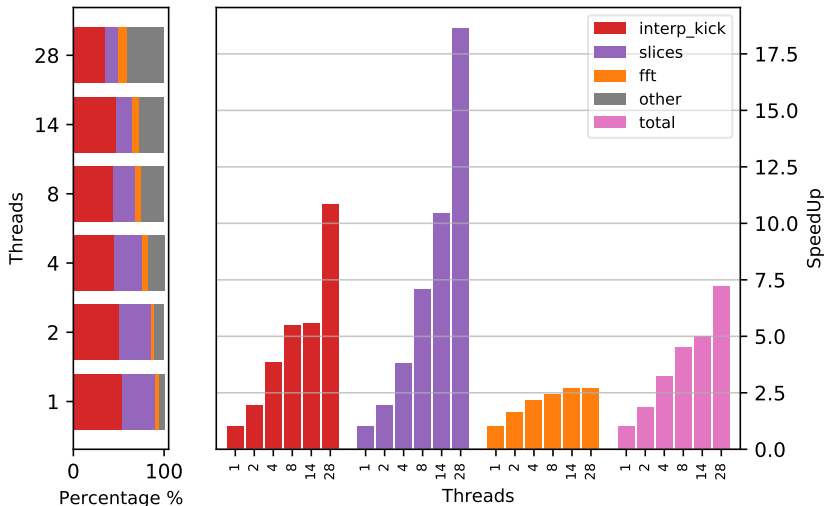
2M particles, 200 slices, 2 sections (microwave\_instability)

# PSB test-case (Danilo)



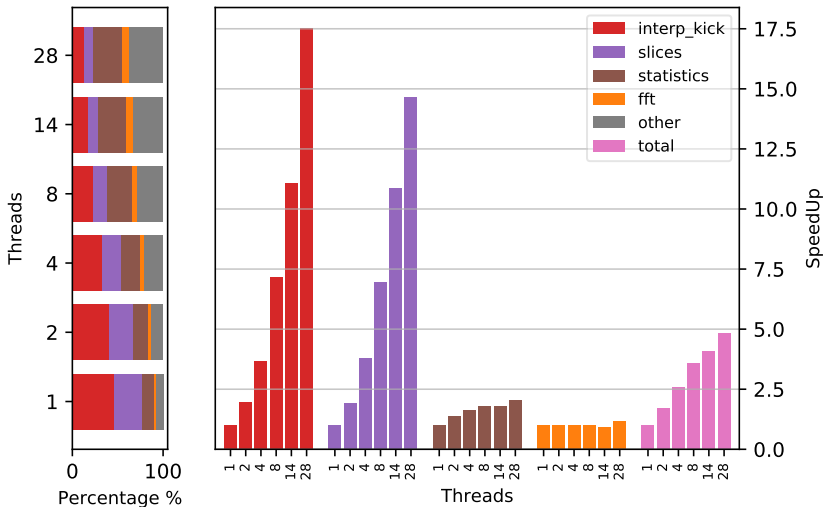
2M particles, Multi-turn-wake, traditional kick, vertical cut

## SPS test-case (Joel)



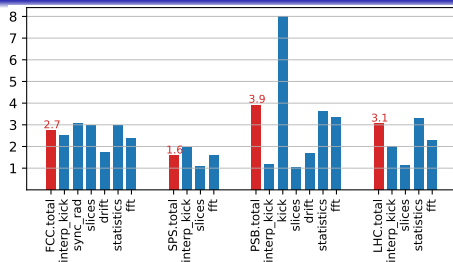
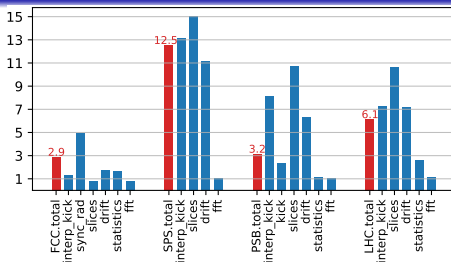
72 bunches, 1M particles-256 slices/bunch (drf\_10.0\_1.5\_noShieldHOMd1.6)

# LHC test-case (Helga)

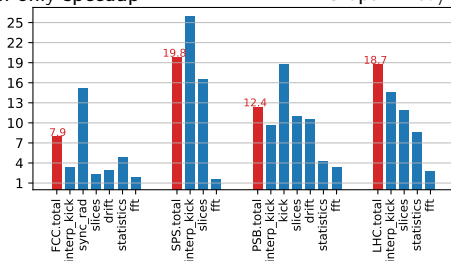


3 bunches, 1.8M particles, 2200 slices, w/ noiseFB, phaseLoop, losses\_separatrix 1/10 turns, (LHC\_3b\_acc)

# Speedup since the python-only version



## C-simple/Python-only speedup



## C-optimized/c-simple speedup

## C-optimized/python-only speedup



# Thank you for your attention

