

Code Reviews

What's the point?

- PYTHIA has a lot of things going for it
 - clarity and quality of the code
 - extensive and clear documentation

- Torbjörn ensured this continued
- none of us is Torbjörn
- but `sum(PYTHIA authors) == Torbjörn?`

Google Guidelines (1)

<https://google.github.io/eng-practices/review>

- **design** - Is the code well-designed and appropriate for your system?
- **functionality** - Does the code behave as the author likely intended? Is the way the code behaves good for its users?
- **complexity** - Could the code be made simpler? Would another developer be able to easily understand and use this code when they come across it in the future?
- **tests** - Does the code have correct and well-designed automated tests?
- **naming** - Did the developer choose clear names for variables, classes, methods, etc.?

Google Guidelines (2)

<https://google.github.io/eng-practices/review>

- **comments** - Are the comments clear and useful?
- **style** - Does the code follow our style guides?
- **documentation** - Did the developer also update relevant documentation?

Two-way Street

- author
 - **scope** of the merge request should be well summarized
 - **what** is the problem?
 - **how** does this fix it?
 - **documentation** should be up-to-date (XML)
 - **tests** should all run and any differences should be understood

- reviewer
 - **verify** author has done due diligence (scope, documentation, tests)
 - **validate physics** of the new code
 - **understand** what the code is doing (if you can't, then ask questions)
 - **remain in scope** and relegate any tangents to new issues