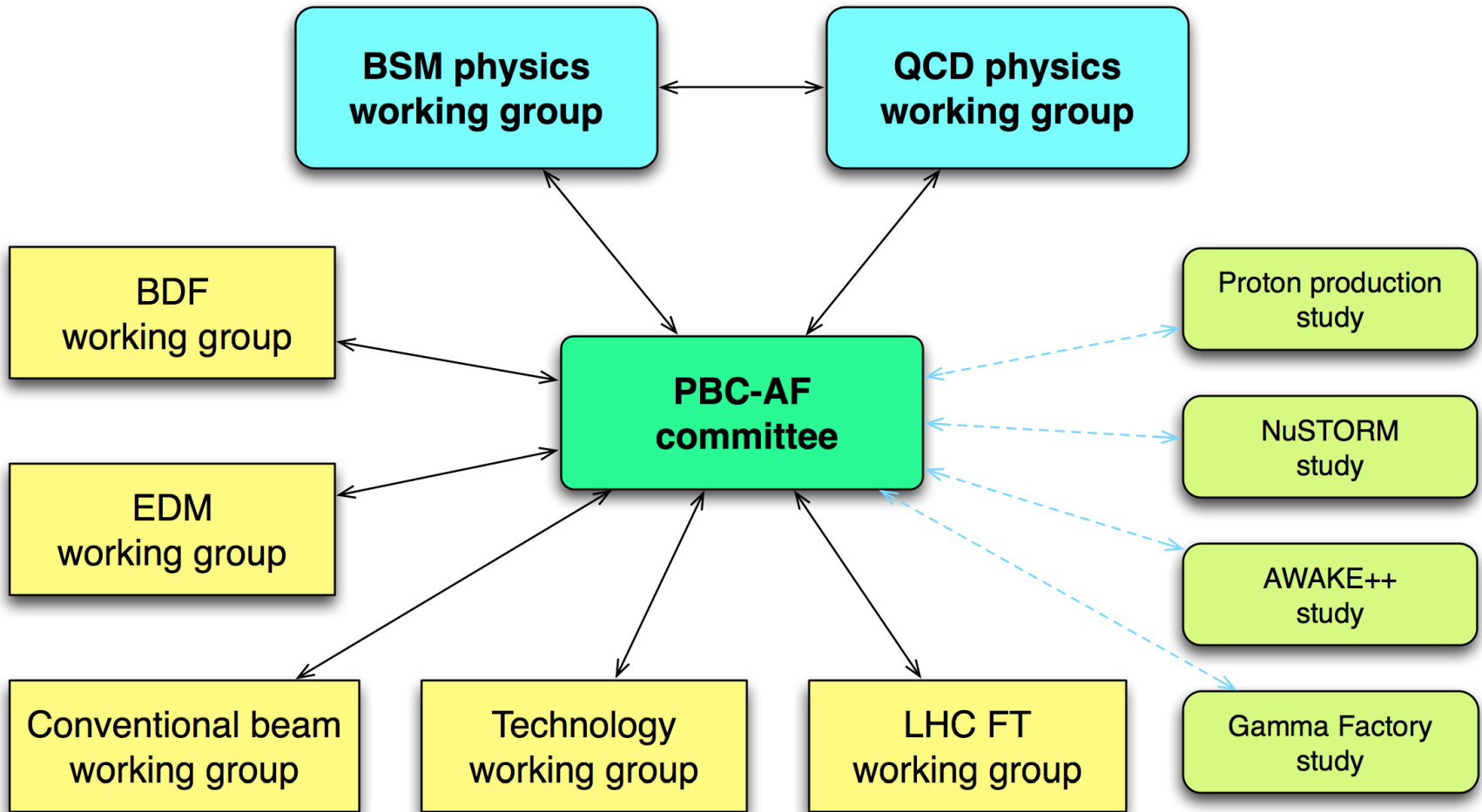


Physics Beyond Colliders Working Group Meeting
CERN – March 1-2, 2017

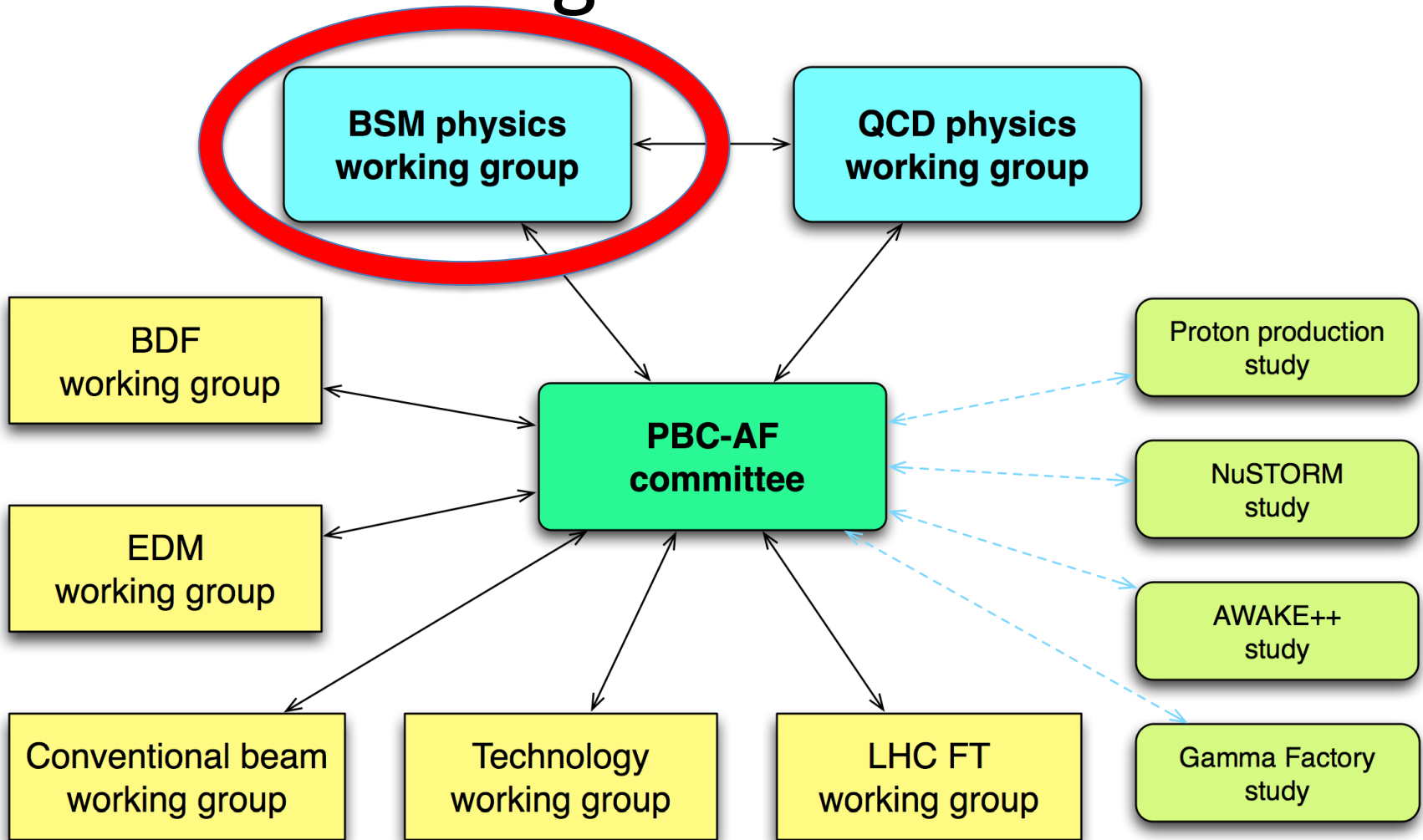
Introduction BSM group



Organisation



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Working group membership

- Consists of project representatives and members not associated to a specific project
- Theorists: Clare Burrage (U. Nottingham), Maxim Pospelov (Victoria U., Perimeter Inst.)
- Experimentalists: Sasha Rozanov (CPPM Marseille), Giuseppe Ruoso (INFN Legnaro), Klaus Jungmann (KVI Groningen), Klaus Kirch (PSI), Gaia Lanfranchi (Frascati), Guillaume Pignol (Grenoble)
- Project representatives: Tommaso Spadaro (NA62++), Cristina Lazzeroni (KLEVER), Kostas Petridis (SHiP), Sergei Gninenko (NA64++), Igor Irastorza (IAXO), Axel Lindner (LSW), Yannis Semertzidis (EDM)

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Membership remains open but should ask PBC coordinators

Things to do...

- Already a nice set of proposals!
 - ➔ Evaluate physics case in worldwide context
 - Motivation for the searched for physics
 - Sensitivity compared to other existing experiments
 - Complementarities?
 - ➔ Can the experiment be improved?
 - Synergies between different proposals or existing experiments

New Ideas...

- Always open to new ideas/proposals!
 - Are there “holes” in the existing parameter space that cannot be probed with existing/proposed experiments?
Is it possible to close them?
 - Ideas to improve sensitivity?

Personal view on current issues

- Currently 3 “groups” of experiments

Fixed Target experiments: NA62++, NA64++, KLEVER, SHiP

ALP/ultralight particle searches: LSW, IAXO

EDM

- Synergies within the groups (physics/technology)
- Connections between groups (physics/technology)

Weird idea...

- Database for “old” experiments and their data
- There are many old experiments that have impact on the things we are looking for.
- We want to avoid duplication
- Often theorists looking at those old experiments (do not always really understand the data)
- It’s often hard to get all the required information
 - ➔ Would it make sense to try and collect all this information in a database?
 - ➔ Perhaps do it with “collective memory” wikipedia style

Much to do:

Let's find the new physics 😊