Introduction to the QCD Working Group

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Group composition
Group mandate
Personal view on some current issues
QCD WORKING GROUP MEMBERS

Core members not associated to a project:
• 2 theorists: Markus Diehl (DESY) and Jan Pawlowski (Heidelberg)
• 1 experimentalist: Gunar Schnell (Bilbao)

NB: all 3 have kindly agreed to act as conveners of the group

Projects representatives:
• Granziano Venanzoni (μ-e)
• Gerhard Mallot (COMPASS++)
• Jean-Philippe Lansberg (AFTER)
• Achille Stocchi (crystal)
• Juerg Schacher (DIRAC++)
• Gianluca Usai (NA60++)
• Szymon Pulawski (NA61++)

NB: Working group remains open to:

new ideas
(2nd open workshop to come)

and new members
(should contact the PBC coordinators)
QCD WORKING GROUP MANDATE

**Deliverables for each proposed project:**

- Evaluation of the physics case in the worldwide context
- Possible further optimization of the detector
- For new projects: investigation of the uniqueness of CERN siting

**NB:** the Working Group has a close connection to the PBC accelerator “Conventional Beams” and “LHC Fixed Target” subgroups, where the projects are also represented together with CERN accelerator experts.

*The QCD physics working group should concentrate on the optimization of the physics output and detector layout, leaving technical aspects of the beamline to the accelerator working group.*
A PERSONAL VIEW ON SOME CURRENT ISSUES

Structure Functions/Spectroscopy:
• Complementarity COMPASS++/LHC-FT and worldwide competition (RHIC, JLAB, JPARC...)

Heavy Ion Physics:
• Comparison of charm reach between NA61++, NA60++ and LHCb-FT
• Connections with the GSI/CBM and RHIC communities

New projects:
• Feasibility/options for the $\mu$-e measurement and competition from $e^+e^-$ factories
• Added values of DIRAC++ and NA60++ revivals compared to previous projects
• Feasibility/fundamental motivation of baryon magnetic moment measurement with bended crystals