ATLAS and forward physics

L.Fabbri[1]
on behalf of the ATLAS Collaboration and Forward Physics Working Group

1- INFN and University of Bologna
Via Irnerio 46, 40128 Bologna - Italy

In this contribution the forward physics program of the ATLAS experiment is illustrated and the possibility to perform diffractive studies at low luminosity is discussed.

Furthermore, the ATLAS forward detectors are described, including the upgrade project AFP, and the first measurements carried out with the early data acquired by LHC are shown. Special attention is dedicated to the pseudo-rapidity coverage provided by these detectors and to their use as trigger for diffractive events.

References

[1] ATLAS Collaboration, *The ATLAS Physics TDR (vol. 1)* CERN-LHCC-99-15 **1999**.

[2] ATLAS Collaboration, *The ATLAS Experiment at the CERN Large Hadron Collider*, J. Instrum. 3 S08003, **2008**.

[3] ATLAS Collaboration, *Zero Degree Calorimeters for ATLAS*, CERN-LHCC-2007-001 I-016**2007**.

[4] H.Stenzel *Luminosity calibration from elastic scattering* ATL-LUM-PUB-2007-001, **2007**.