

PANDA Report

by the Spokesperson

Ulrich Wiedner

The past year was still under Corona conditions, so we shifted tasks around.

Priority was given to Physics studies and publications for Day-1:

Eur. Phys. J. A (2021) 57:30
<https://doi.org/10.1140/epja/s10050-020-00333-3>

THE EUROPEAN
PHYSICAL JOURNAL A



Regular Article - Experimental Physics

Feasibility studies for the measurement of time-like proton electromagnetic form factors from $\bar{p}p \rightarrow \mu^+\mu^-$ at PANDA at FAIR

EPJ manuscript No.
(will be inserted by the editor)

- e-Print: [2012.01776](https://arxiv.org/abs/2012.01776) [hep-ex]
- Eur. Phys.J.A 57 No. 149 (2021)

Study of Excited Ξ Baryons with the PANDA Detector

G. Barucca¹, F. Davi¹, G. Lancioni¹, P. Mengucci¹, L. Montalto¹, P. P. Natali¹, N. Paone¹, D. Rinaldi¹, L. Scalise¹, B. Krusche², M. Steinacher², Z. Liu³, C. Liu³, B. Liu³, X. Shen³, S. Sun³, G. Zhao³, J. Zhao³, M. Albrecht⁴,

EPJ manuscript No.
(will be inserted by the editor)

- e-Print: [2009.11582](https://arxiv.org/abs/2009.11582) [hep-ex]
- Published in: Eur.Phys.J.A 57 (2021) 4, 149

The potential of Λ and Ξ^- studies with PANDA at FAIR

G. Barucca¹, F. Davi¹, G. Lancioni¹, P. Mengucci¹, L. Montalto¹, P. P. Natali¹, N. Paone¹, D. Rinaldi¹, L. Scalise¹, W. Erni², B. Krusche², M. Steinacher², N. Walford², N. Cao³, Z. Liu³, C. Liu³, B. Liu³, X. Shen³, S. Sun³,

EPJ manuscript No.
(will be inserted by the editor)

- e-Print: [2101.11877](https://arxiv.org/abs/2101.11877) [hep-ex]
- Published in: Eur.Phys.J.A 57 (2021) 6, 184

PANDA Phase One

PANDA collaboration

G. Barucca¹, F. Davi¹, G. Lancioni¹, P. Mengucci¹, L. Montalto¹, P. P. Natali¹, N. Paone¹, D. Rinaldi¹, L. Scalise¹, B. Krusche², M. Steinacher², Z. Liu³, C. Liu³, B. Liu³, X. Shen³, S. Sun³, G. Zhao³, J. Zhao³, M. Albrecht⁴,

Together with HADES

EPJ manuscript No.
(will be inserted by the editor)

e-Print: [2010.06961](https://arxiv.org/abs/2010.06961) [nucl-ex]
Published in: *Eur.Phys.J.A* 57 (2021) 4, 138

Production and electromagnetic decay of hyperons: a feasibility study with HADES as a Phase-0 experiment at FAIR

(HADES collaboration with PANDA@HADES collaboration)
J. Adamczewski-Musch⁴, A. Belyaev⁷, A. Blanco¹, C. Blume⁸, C. Charlotte⁸, D.S. Borisenko¹², C. Charlotte⁸, L. Chlad¹⁶, P. Chudoba¹⁶, I. Ciepał², A. Derichs¹¹, D. Dittert⁵, J. Dreyer⁶, W.A. Esmail¹¹, O. Fateev⁷, P. Fonte^{1a}, J. Friese⁹, I. Fröhlich⁸,

... and on existing antiproton data

Eur. Phys. J. C (2020) 80:453
<https://doi.org/10.1140/epjc/s10052-020-7930-x>

THE EUROPEAN
PHYSICAL JOURNAL C



Regular Article - Experimental Physics

Coupled channel analysis of $\bar{p}p \rightarrow \pi^0\pi^0\eta$, $\pi^0\eta\eta$ and $K^+K^-\pi^0$ at 900 MeV/c and of $\pi\pi$ -scattering data

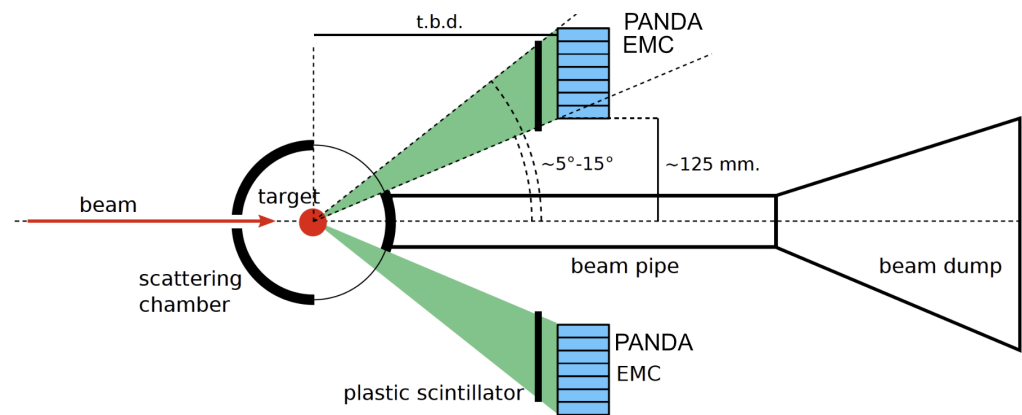
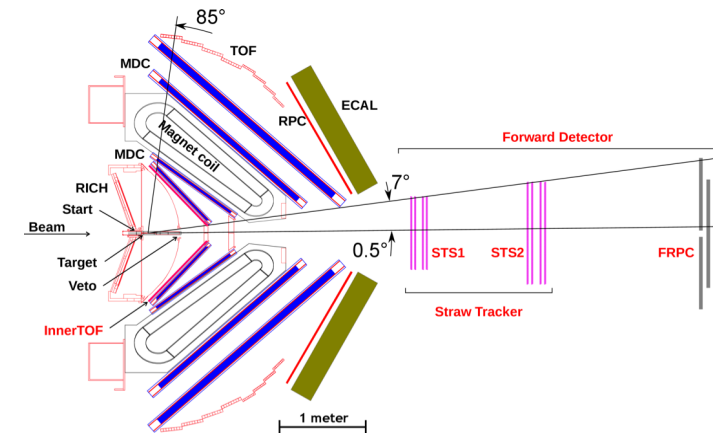
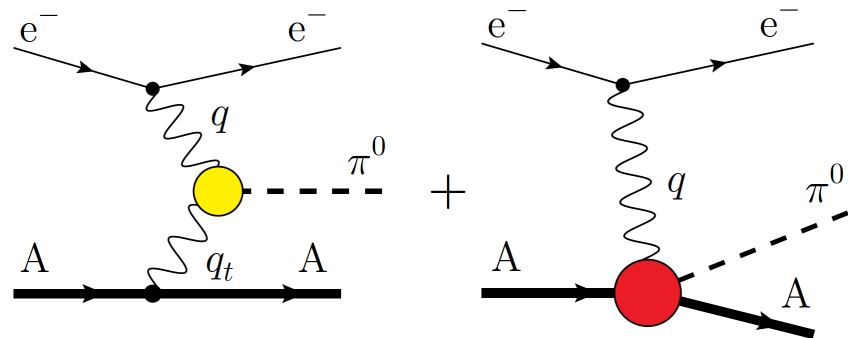
The Crystal Barrel Collaboration

M. Albrecht¹, C. Amsler^{4,5}, W. Dünnweber³, M. A. Faessler³, F. H. Heinsius¹, H. Koch¹, B. Kopf^{1,a}, U. Kurilla^{1,6}, C. A. Meyer², K. Peters^{1,6}, J. Pychy¹, X. Qin¹, M. Steinke¹, U. Wiedner¹

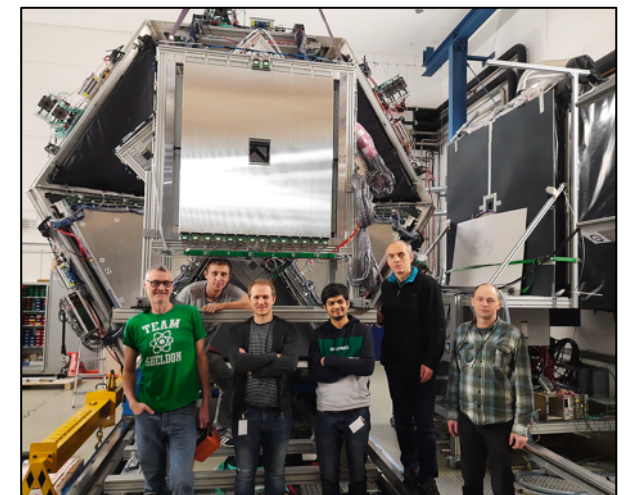
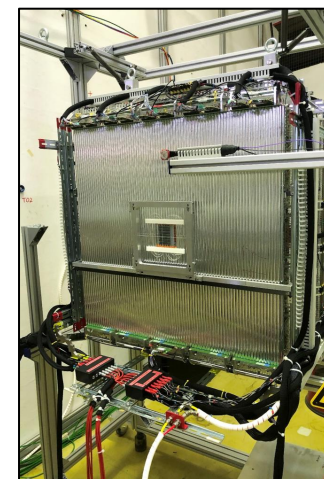
Phase-0 preparations progressed

FAIR Phase-0 @ MAMI

panda @ HADES

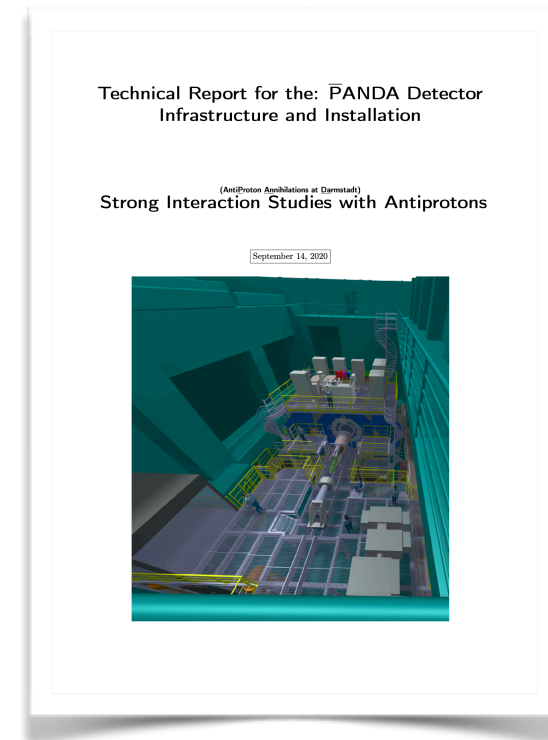
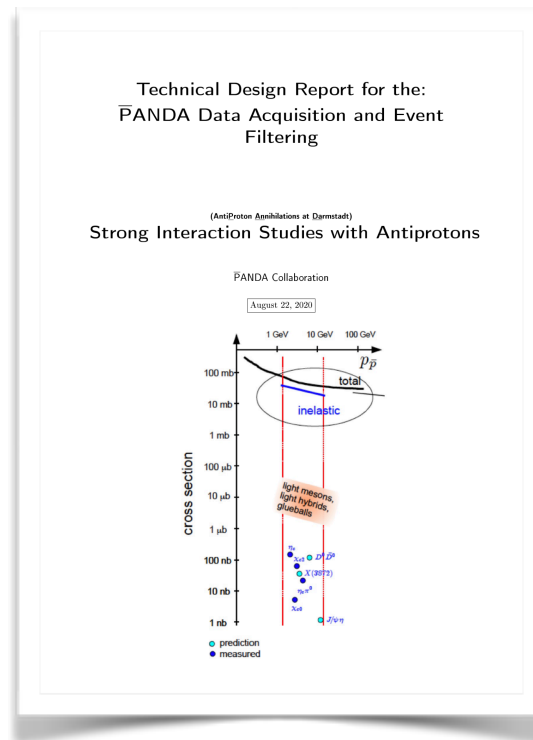


The setup of the PANDA
backward EMC
within the A1 experiment at MAMI

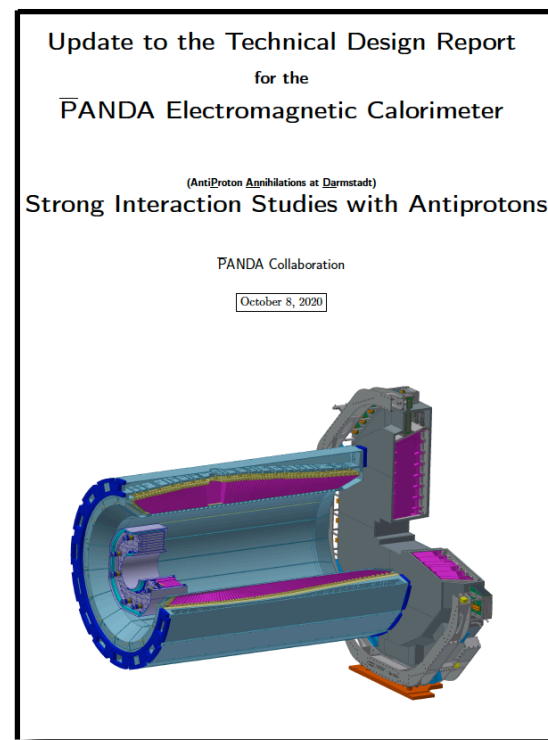


Straw Tube Stations (STS)
compatible with PANDA STT/FT

New TDRs



and one updated TDR



... all approved by ECE/ECSG

But most effort went into:

PANDA Collaboration

Memorandum of Understanding

Memorandum of Understanding

for Collaboration in the Construction of the Anti-Proton ANnihilation at Darmstadt (PANDA) Experiment at FAIR

between

The Facility for Antiproton and Ion Research in Europe GmbH
- hereinafter referred to as FAIR GmbH -

and

the member institutions of the PANDA Collaboration
- hereinafter referred to as *Member Institutions* -

together with the corresponding funding agencies

which was approved by the Collaboration Board in October 2021 and the ECE/ECSCG drew the conclusion: "The committee recommends the approval of the PANDA C-MoU"

We would appreciate if you could examine the text and the principle (both very similar to the CBM C-MoU) for a subsequent recognition later this year.

Information:

There might be a new representative for the RRB from Thailand since the Thai groups plan to provide mechanics for PANDA. However, it has not cleared by the authorities in Thailand if and when they will send somebody.

Technical Progress \Rightarrow Report of Technical Coordinator Lars Schmitt

Resource Status \Rightarrow Report of Resource Coordinator Ralph Böhm

Thank you very much for your kind attention.