



Electromagnetic Processes in PANDA

PANDA Collaboration Meeting
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Two Activities:

- Physics Book II: Series of plenary talks from the physics convenors
EMP/form factors/hard processes:
F. Maas: 12/2012, PANDA CM/GSI
M. Maggiora: 12/2012, PANDA CM/GSI
- here: Have an “executive summary” of the PANDA physics program
(origin: FAIR council,
Jim Ritman: update and extend)
chapter on EM processes

At present: 5 pages document

“Nucleon Structure from electromagnetic processes in PANDA”

- Introduction: EM probe
 - space like \leftrightarrow time like
 - GPDs \leftrightarrow GDAs
 - GPDs \leftrightarrow TDAs
 - TMDs: SemiDIS \leftrightarrow Drell-Yan
 - world data
- Electromagnetic Form Factors in time like Regime
 - Simulations (e):
 - G_E/G_M , cross section, rad. corrections, below threshold,...

- **Simulations (e):** Transition Distribution Amplitudes
 - connection to GPDs/Factorization
 - connection to time like form factors
- **Simulations (γ):** GDAs: Wide angle compton scattering
- **Simulations (μ):** Drell-Yan:
 - Simulations: transverse momentum dependent spin structure (TMDs)

Possible additional paragraphs:

- Impact of polarized target
- Background modelization/Simulation
- Radiative corrections