



# Zara Bagdasarian for the ANKE Collaboration

[z.bagdasarian@fz-juelich.de](mailto:z.bagdasarian@fz-juelich.de)

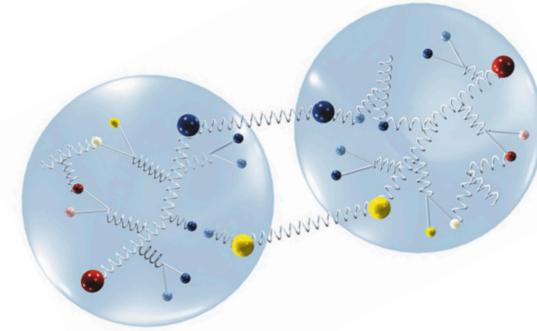
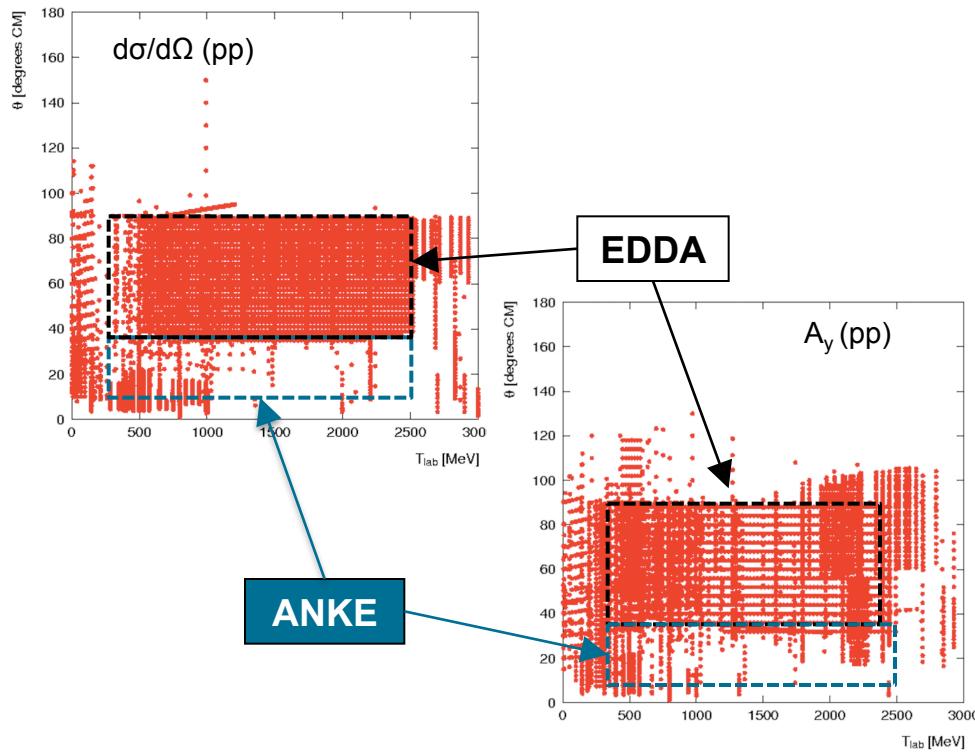
Forschungszentrum Jülich  
Universität zu Köln  
Ivane Javakhishvili Tbilisi State University

# Measurement of the Analyzing Power in Proton-Proton Elastic Scattering at Small Angles

January 26<sup>th</sup> 2015 Bormio, Italy  
53<sup>rd</sup> International Winter Meeting on Nuclear Physics

# MOTIVATION: Nucleon-Nucleon Interaction

Characterize short-range nucleon-nucleon interaction by pinning down the parameters for the Phase Shift Analysis (PSA)  
 → need to measure experimental observables



Wealth of data ( $35^\circ < \theta_p < 90^\circ$ )  $T_p \leq 2.5 \text{ GeV}$

No experimental data at smaller angles ( $\theta_p < 35^\circ$ ) above  $T_p = 1.0 \text{ GeV}$

# EXPERIMENT: COSY (Cooler Synchrotron)



# RESULTS: Analyzing Power

SAID (partial wave analysis) recent solution (2007)

ANKE STT

ANKE FD

EDDA

SAID new solution (2014)

Agreement with the existing data at 0.8 GeV

Brand New Data at five energies for SAID!

