

#### **DEEPLY VIRTUAL COMPTON SCATTERING** FROM OBSERVABLES TO GPDS

International Workshop

Ruhr-Universität Bochum, February 10 - 12, 2014

#### DVCS 2014 Bochum

Aim is to have focused discussion of DVCS among experts. It is assumed that:

- I) Everybody knows the definition of GPDs. No need to remind it in your talks.
- 2) Everybody knows that GPDs are not direct observables. What can be learned about GPDs from DVCS observables?
- Everybody knows relations of GPDs to quark angular momentum and to 3D parton distributions (Jq and 3D pdfs are not related directly to DVCS observables, see 2)

What are other (not Jq and 3D pdfs) fundamental motivations for DVCS measurement ?

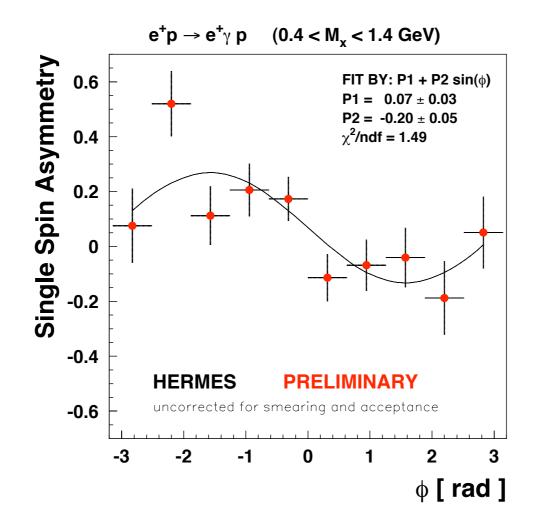
### Today we are:

More than 20 years away from the first appearance of GPDs and the first theoretical description of DVCS in terms of GPDs

Dieter Mueller et al., Fortsch. Phys. 42 (1994) 101

# **I5 years** away from the very first measurement of a DVCS observable

Moskov Amarian (for HERMES coll.) talk at SPIN 2000, Osaka 2000



**FIGURE 1.** Single-spin asymmetry as a function of azimuthal angle  $\phi$ .

Since then a big progress is made in experiment and theory. I hope that 3 days Bochum discussion will help us:

I) to understand what we achieved with DVCS

2) to understand which fundamental problems of QCD can be addressed with DVCS (confinement? generation of mass gap? chiral symmetry breaking? existence of exotic hadrons ?)

3) to formulate our dreams about future of DVCS

## Wish you a hot discussion!