

g2p Collaboration Meeting



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Collaboration Meeting Goals

- 1) Monitor students progress toward graduation
there have been some delays so are there any revisions
to previous discussion on division of physics topics?
- 2) Identify any major remaining analysis issues
- 3) Establish Collaboration policy for release of plots
- 4) AOB?

Proposed Policy for Collaboration Release of Physics Results

Physics Results means
asymmetries,
cross sections,
cross section differences
structure functions (g_1, g_2)
moments (Γ_1, Γ_2 , polarizabilities, etc)

This applies to any plot shown at a conference, workshop, in a thesis, proceeding etc.

Proposed Policy for Collaboration Release of Physics Results

- 1) Any new physics result must be labeled "Very Preliminary" by default
- 2) All plots must be labeled with the text "g2p collaboration" and date of creation
- 3) All plots must clearly state the status/version of
 - a) radiative corrections
 - b) model input (if any)
 - c) systematic errors
 - d) dilution factor and packing fraction
- 4) In order to be labeled "Preliminary" any result must
 - a) Have an estimate of systematic uncertainty
 - b) Not rely on model input when data is available.
 - c) Been circulated for atleast two weeks within the collaboration
 - d) Recieved approval from the g2p spokesmen
(Camsonne, Chen, Crabb, Slifer)
- 5) To become final (i.e. remove "Preliminary") any result must
 - a) Have been circulated for atleast two weeks within the collaboration
 - b) Recieved approval from the g2p spokesmen.

Review from last meeting

Graduation Goals

(Quick summary from last meeting)

<u>Collaborator</u>	<u>Grad. Goal</u>	<u>Plans</u>	<u>Analysis To Finish</u>	<u>Thesis Physics Topic</u>	<u>Yr</u>	<u>Thesis Requirements</u>
Chao	Aug 15	Postdoc	Optics/ XS?	Asym?	6	unique from Jie
Min	May 15	?	LHRS Acceptance	XS?	7	paper?
Pengjia	May 15	Postdoc/ industry	Asym Cuts	Asym?	7	2 papers
Melissa	May 15	Postdoc/ Industry	P.F., yield stability, $P_b P_t$	Asym?	6	none
Ryan	Spring 16	?	XS global, pol RC on $\Delta\sigma$, g2p	Final $\Delta\sigma$, g2p, HFS?	5	unique from Toby
Toby	Spring 16	Industry/ Postdoc?	Dilution, Yield Stability, Quality Checks, Asym	Final $\Delta\sigma$, g2p, polarizabilities, BC Sum	5	unique from Ryan
Jie	Summer 16	Postdoc	PF, Δp simulation	acceptance, g2p, moments	5	unique from Chao

Brief Summary

Toby: Yield Check (in progress)

Dilution completion mid march (except for problem settings)

Dilution delayed due to quality checks

Jie : Yield problems probably not from an angle change

finish DP sim in 1 week (on schedule)

Chao : 2nd iteration calibration will be finished soon (on schedule)

next : tech note/NIM article with Min

Status of Aug Graduation?

Min : Estimate 4 months to finish transport functions for left arm acceptance

+ time to apply to dil, calculate acceptance, apply to xs

Right arm?

(Some delay) Status of May Graduation?

Ryan : PRC draft written (goal to submit May),

carbon/nitrogen ratio in progress,

quality checks (few weeks)

starting polarized RC (on schedule)

Pengia : False asymmetry (less than 200ppm per setting) in progress

Status of May Graduation?

Major Issues

1. Yield Stability / Overall Data Quality Check. Serious manpower must be devoted to this.
2. Acceptance : Looks good, but possibly an analysis bottleneck. Do we need a backup plan?
3. Analysis Method : $\Delta\sigma$ vs. Asymm with dilution.
4. Analysis Method : parallel analyses? Does not look possible to have two completely independent analyses with projected manpower. Where to focus any redundant efforts?
5. Incorporating parallel data from Hall B (g1). The effort should start now, with model input. Data can be swapped in later.

Other Issues

1. Writing first paper(s) should start now. The general form is fairly clear, can start to write. Can we identify people to work on this?
2. We need to set a Lead Authorship Policy for publications.
3. We need to set collab rules for showing preliminary data.

Potential Paper Topics

<u>Topic</u>	<u>Target Journal</u>	<u>People</u>	<u>comments</u>
Asymmetries	PRC		
$\Delta\sigma$ & g2p	PRL		
BC Sum (global)	PRL		
Spin Polariz.	PRL		
HFS	PRL		
Archival	PRC		
Target	NIM	Toby, James, Josh, ...	Published
XS (global)	PRC	Ryan	
Optics	NIM	Chao, Min, Jixie	
BPM	NIM	Pengjia	
Higher order Polarizabilities			
ELT Sum Rule			
XS (g2p data) ?			

from last meeting

Yield Check Summary (Toby)

<u>Setting</u>	<u>Status</u>	<u>Responsible</u>
3.3 GeV	many "bad" runs	Toby
2.2 GeV (5T)	OK	Toby
2.2 GeV (Long, 5T)	~OK	Toby
2.2 GeV (2.5 T)	many "bad" runs	Melissa
1.7 GeV (2.5 T)	~OK	Pengia
1.1 GeV (2.5 T)	?	Ryan