

Diffraction...

Process	Details	Physics topics	Workforce	Overlap other WG
DIS with rapidity gap.	Coherent : intact p or A	Diffraction structure functions, diffractive parton densities. Large z for the diffractive PDFs in proton. Longitudinal diffractive structure function: sensitivity to gluon. First measurement of nuclear pdfs	Newman, Slominski, Armesto, Anna; Strikman, Guzey, Frankfurt	
Incoherent diffraction of VM	VM rapidity gap and incoherent p or A: rho, phi, J/psi, psi', Upsilon	d σ /dt tests saturation; near-threshold production, energy dependence on the gap, tests for Pomeron/Reggeon	Spencer, Sam, Strikman, Deak, Kotko	exclusive
Gamma gamma exclusive	Exclusive production of various mesons	Meson spectroscopy	Szczurek, Schafer, Luszczak, Cisek	
Diffractive jet, charm		Factorization in diffractive ep/eA, testing partonic structure of the Pomeron/Reggeon	Strikman, Guzey, Frankfurt, Klasen	jets/heavy flavor
a ₂ ⁺ (1320) production		benchmark process for reactions that proceed only via Reggeon exchange	Spencer	
Z _c ⁺		benchmark process for exotic photoproduction	Spencer	

...and Tagging

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Light nuclei DIS w nuclear fragments tagging	D: single p/n tagging, double pn tagging 3He: N tagging, D tagging	Neutron structure, medium mod., shadowing, hadronization (FSI)	D: LDRD codes: SULI student; Cosyn, Weiss etc. (Th) D shadowing: Guzey, F&S(Th) 3He: Nguyen et al. (gen.)	Coherent tagging in exclusive reactions in exclusive WG
Sullivan process: ep->e'XN; ed->e'XNN	Nucleon tagging D double tagging	Kaon, pion structure	Large group (exp+th.): T. Horn contact	
eA QE multi-N knockout eA DIS + recoil N eA J/Psi + recoil NN		SRCs	Tu Zhoudunming, Hauenstein, Schmookler (Beagle)	
Vector meson photoproduction and electroproduction	Separate coherent and incoherent photoproduction	Shadowing/saturation	Spencer?	Exclusive WG
ep DIS target fragmentation	N,Λ,mesons Large x	Particle prod. In SIDIS; Hadronization of remnant; Input in FSI; Correlations w current fragm.	No gen. active (?) Interest from Ceccopieri, Weiss and others	SIDIS?
u-channel exclusive meson prod.		Transition distribution amplitudes N->meson	group (exp+th): Wenliang (Bill) Li contact	exclusive

Thoughts on detector requirements

Measurement	Subsystem	Requirement on	Overlap other WG
Separate Upsilon (1S), Upsilon (2S), Upsilon(3S)	tracking	Momentum Resolution	Coherent tagging in exclusive reactions in exclusive WG
Observe diffractive dips in $eA \rightarrow eAV$	Tracking Electron tracking	Momentum resolution	
Separate Coherent and Incoherent Photo- and Electro-production	Nuclear Tagging	Fragment (and photon?) detection efficiency, low false detection efficiency	Exclusive reactions
Two-photon and meson spectroscopy with π^0 in final state	Calorimeter	π^0 detection efficiency, photon energy threshold and resolution	