

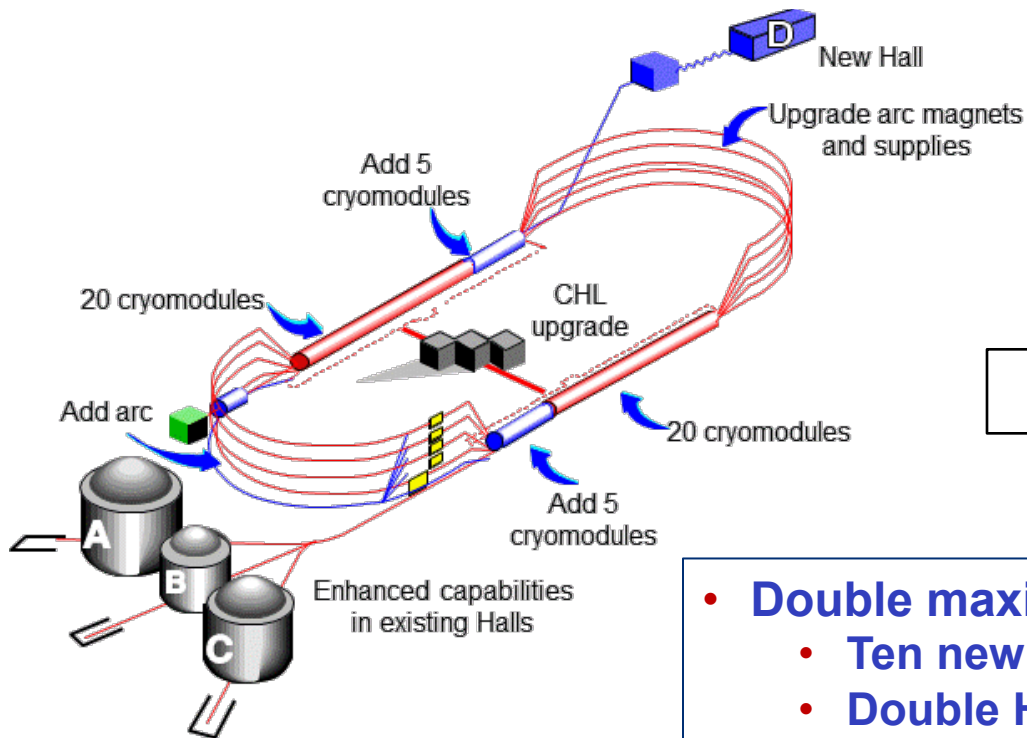
Welcome to The 2-day focused workshop on Electroproduction

*To exploring Hadrons with Electromagnetic Probes:
Structure, Excitations, Interactions, ...*

Jianwei Qiu
Theory Center

Thomas Jefferson National Accelerator, VA, November 2-3, 2017

12 GeV CEBAF Upgrade Project is Complete!



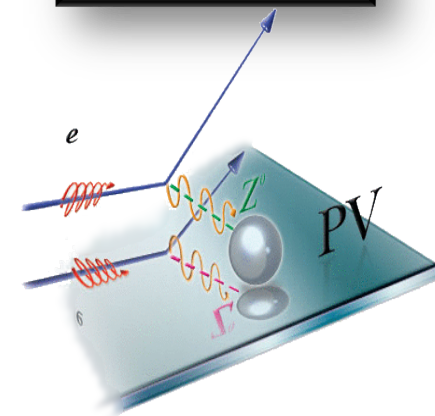
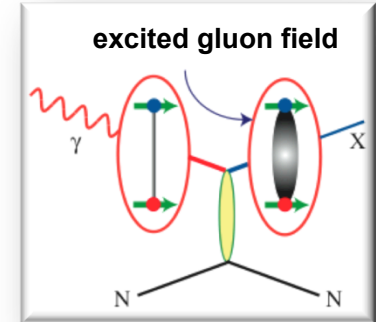
Total Project Cost = \$338M

- **Double maximum Accelerator energy to 12 GeV**
 - Ten new high gradient cryomodules
 - Double Helium refrigerator plant capacity
 - Civil construction and upgraded utilities
- Add 10th arc of magnets for 5.5 pass machine
- Add 4th experimental Hall D
- New experimental equipment in Halls B, C, D

Project Completion Approved September 27, 2017

Jefferson Lab @ 12 GeV Science Questions

- ❑ What is the role of gluonic excitations in the spectroscopy of light mesons?
- ❑ Where is the missing spin in the nucleon?
Role of orbital angular momentum?
- ❑ Can we reveal a novel landscape of nucleon substructure through 3D imaging at the sub-femtometer scale?
- ❑ Can we discover evidence for physics beyond the standard model of particle physics?



How to deliver the physics results of JLab 12 GeV program quickly and more effectively?

This two-day workshop ...

□ Will focus on these physics topics:

- ✧ Hadron imaging with hadron processes
- ✧ Hadron spectroscopy with electromagnetic and hadronic probes
- ✧ Hadrons in the nuclear medium and strangeness
- ✧ ...

□ Will explore better interaction between

- ✧ Experiment, theory, and computation
- ✧ Better ways to analyze and present the data
- ✧ ...

□ Will promote potential interactional collaborations

With South Korean Physicists in hadron physics, ...

Finally ...

- Continue support this kind of focused effort, and close interactions ...
- Look forward to the exciting discussions, ...
- Enjoy the workshop!

Welcome!