

# Probing Nucleons and Nuclei in High Energy Collisions

INT Program 18-3

October 1—November 16, 2018

Organizers

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Cyrille Marquet (Ecole Polytechnique)

Alexey Prokudin (Penn State U. Berks)

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# Gluons and the quark sea at high energy distributions, polarization, tomography

September 13 to November 19, 2010

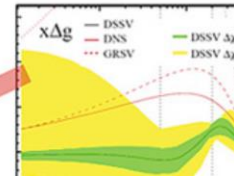
Report from the INT program "Gluons and the quark sea at high energies: distributions, polarization, tomography"

## 2010 INT workshop

o small x uncertainty from DSSV

$da_1$

$-\Delta g(x, Q^2)$



REACHING FOR THE HORIZON

## 2015 Long Range Plan

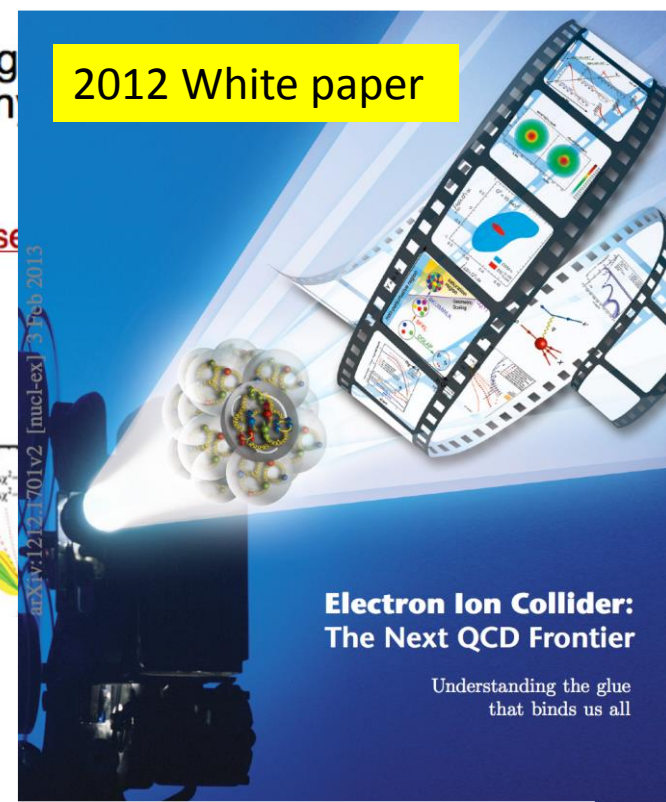
The Site of the Wright Brothers' First Airplane Flight

The 2015  
**LONG RANGE PLAN**  
for **NUCLEAR SCIENCE**



## 2012 White paper

arXiv:1212.1701v2 [nucl-ex] 3 Feb 2013



**Electron Ion Collider:**  
The Next QCD Frontier

Understanding the glue  
that binds us all

## An Assessment of U.S.-Based Electron-Ion Collider Science

“The committee finds that the science that can be addressed by an EIC is compelling, fundamental and timely.”

2018 NAS report

# 2018 INT workshop

<http://www.int.washington.edu/PROGRAMS/18-3/>

Goals: Assess the current status of the EIC-related physics (theory/phenomenology); discuss new ideas, new measurements; lay the groundwork for another EIC white paper

	# of participants
<b>Week 1 (October 1-5) : Generalized parton distributions</b> Conveners: <a href="#">Tanja Horn</a> , <a href="#">Andreas Metz</a> , <a href="#">Christian Weiss</a>	25
<b>Week 2 (October 8-12) : Workshop on Transverse spin and TMDs</b> <a href="#">Harut Avakian</a> , <a href="#">Alessandro Bacchetta</a> , <a href="#">Daniel Boer</a> , <a href="#">Zhongbo Kang</a>	39
<b>Week 3 (October 15-19) : Longitudinal spin</b> <a href="#">Elke Aschenauer</a> , <a href="#">Keh-Fei Liu</a> , <a href="#">Cedric Lorce</a> , <a href="#">Marco Stratmann</a>	26
<b>Week 4 (October 22-26) : Symposium week</b>	35
<b>Weeks 5 &amp; 6 (October 29-November 9) : eA collisions</b> <a href="#">Giovanni Chirilli</a> , <a href="#">Charles Hyde</a> , <a href="#">Anna Stasto</a> , <a href="#">Thomas Ullrich</a> , <a href="#">Bowen Xiao</a>	23 & 24
<b>Week 7 (November 12-16) : pA and AA collisions</b> <a href="#">Adrian Dimitru</a> , <a href="#">Francois Gelis</a> , <a href="#">Tuomas Lappi</a> , <a href="#">Yacine Mehtar-Tani</a>	25

# Poster for the workshop



OCTOBER 1 – NOVEMBER 16, 2018 • SEATTLE, WASHINGTON

## PROBING NUCLEONS AND NUCLEI IN HIGH ENERGY COLLISIONS

*Dedicated to the Physics of the Electron Ion Collider*

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### PROGRAM STRUCTURE

Week 1	Week 2	Week 3	Week 4	Weeks 5 & 6	Week 7
October 1-5	October 8-12	October 15-19	October 22-26	Oct. 29-Nov. 9	November 12-16
Generalized parton distributions	Transverse spin and TMDs	Longitudinal spin <i>Conveners:</i>	Symposium week A five-day symposium	eA collisions <i>Conveners:</i>	pA and AA collisions

- Talks will be broadcasted (remote participation by Zoom), recorded and posted (if the speaker permits)
- Wiki pages for each week to document discussions, to be maintained by conveners  
[https://wiki.bnl.gov/EIC2018/index.php/Main\\_Page](https://wiki.bnl.gov/EIC2018/index.php/Main_Page)
- Proceedings will be published.