

## **First Circular** Towards improved hadron femtography with hard exclusive reactions

**Date:** July 18<sup>th</sup> -22<sup>nd</sup>, 2022

**Venue:** Virginia Tech Physics Department, Robeson Hall, Blacksburg, VA, USA

### **Goals:**

The aim of the workshop is to provide an overview of the current status of the experimental and theoretical studies, including lattice QCD, of exclusive reactions and to discuss future possible exclusive measurements as well as needed theoretical studies. In particular, we will focus on the study of hard exclusive meson production and a sample of Compton-like processes in lepton-hadron and hadron-hadron collisions, to access generalised parton distributions and the mass and pressure distribution of hadrons. We will also discuss the study of dihadron and dijet production, which is sensitive to Wigner distributions. Unless conditions prevent it, the workshop is foreseen to be attended in person at the University of Virginia Tech in Blacksburg, VA, USA.

### **Sessions:**

- Hard Exclusive Vector-Meson Production
  - Hard Exclusive Pseudo-scalar-Meson Production (and other non-vector states)
  - Compton-like Reactions: TCS, DDVCS, ...
  - Progress on the study and extraction of GPDs and their interpretation
  - Lattice QCD
  - Study of GTMDs
  - Meson Structure
  - Mass and pressure distribution of the nucleon
  - Future experiments
- with round-table discussions at the end of each day

### **Format**

The workshop will take place from Monday morning, July 18<sup>th</sup>, 2022, until Friday noon, July 22<sup>nd</sup>, 2022. All presentations are plenary talks. Each day will be closed by a round-table discussion, with focus on the main topic of the day and the steps to move forward. The sessions will last approximately from 9 AM to 6 PM, except for the social event on Wednesday afternoon. A reception is foreseen on Monday, July 18<sup>th</sup>, and a workshop dinner on Thursday, July 21<sup>st</sup>.

### **Participation**

Most of the talks will be from invited speakers, however, we are also open to receive abstracts. Priority will be given to junior scientists, such as students, postdocs, and junior faculty members, for contributed talks.

A \$150 fee is asked for staff and faculty participants as a contribution to gatherings and food. No extra fee is required for any of the workshop event.

## About the venue

Virginia Tech has been founded 100 years ago and has made the reputation of Blacksburg for science and technique, attracting a very diverse crowd to this part of the country.

Blacksburg is a medium-sized town located in the core of Appalachian Mountains in Southwest Virginia, USA. The area is well known for the multiple outdoor activities it offers, in particular during the summer. It is near the Blue Ridge Parkway (running over the rim of the Appalachians), with multiple accesses to the famous Appalachian Trail. Some of the most famous day-trails are less than 30 minutes drive from us (McAfee Knob, Angel Rest, Dragon Tooth, ...). The New River Valley is also famous for its fantastic water and whitewater activities, as well as for the New River Trail, a 57 miles biking trail along the river, and for other activities such as caving, fishing, hunting. In addition, the region is known to have a multitude of small wineries. (more details on Indico)

## Social activities

- Workshop reception: Monday July 18<sup>th</sup>, 5:30 PM – 8 PM
- Workshop dinner: Thursday July 21<sup>st</sup>, 7 – 9 PM
- Social activity: Wednesday July 20<sup>th</sup>, 1 PM – 8 PM

**Lodging:** <https://indico.phys.vt.edu/event/51/page/26-lodging>

Local hotels range from \$50 to \$150 / night. Room-sharing is also an option.

A bulk of rooms has been reserved at the Inn at Virginia Tech for \$123+tax/night, indicate that you are a participant to the workshop when making your reservation (“tomography of the nucleon”).

**Coming to Blacksburg, VA, USA:** <https://indico.phys.vt.edu/event/51/page/25-coming-to-blacksburg-va>

Nearest airport: Roanoke, VA (ROA), 45 minutes from Blacksburg.

**More information:** <https://indico.phys.vt.edu/event/51>

## Organizing committee

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Contact 2 or more of the organizers if you need specific information that are not on Indico.

## Local organizing committee

Biswas Deb (VT)  
Boër Marie (VT)  
Semp Brannon (VT)

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