# Welcome to HUGS 2025

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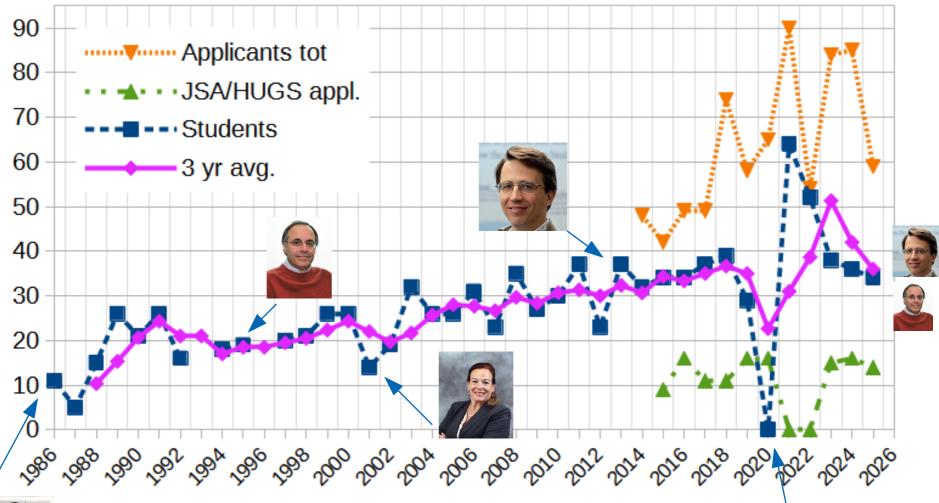








# A long history





Total # students: 1000+

9-years average: 34 students/year

(Last 2 years had hybrid option)

### **Elements of HUGS**

Main lectures (9 am - 4:15 pm) - Hands-on/Recitations - Recaps with the speakers Topical Seminar(s) Student seminars and posters + prize A lot of fun and interaction Socials Lab Tour / Excursions Six school managers (including me) ... <mark>and</mark> ... A smart group of students (you!)

## **Elements of HUGS**



# At a glance

	1st week	2nd week	3rd week	
	May 27 - 30	June 2-6	June 9-13	
Mon		Hadron Spectroscopy (A. Austregesilo / A. Pilloni)	Mesasuring large-x quarks (A. Tadepalli)	AM
				lunch
		Non perturbative strong dynamics (C. Weiss)	Al for nuclear physics (Fanelli)	PM
		Recap with speakers / Al projects		
Tue	7:30 Breakfast 8:00 HUGS Welcome 8:45 Greetings (lab ditector) – 9:00 Resfac orientation 9:15 Workplace overview 10:30 check-in and badging	Hadron Spectroscopy (A. Austregesilo / A. Pilloni)	Mesasuring large-x quarks (A. Tadepalli)	AM
				lunch
	Jefferson Lab Science (C. Gal)	Al for nuclear physics (C. Fanelli)	Topical Seminar - TBD	PM
			Recap with speakers / Al projects	
Wed	Intro to QCD (A. Slmonelli)	Hadron Spectroscopy (Austregesilo / Pilloni)	Student Seminars	AM
		Fundamental symmetries with neutrons (N. Fomin)		
				lunch
	Al for nuclear physics (C. Fanelli)	Lattice QCD (K. Orginos)	Global QCD analysis (W. Melnitchouk)	PM
	HUGS social	HUGS socialHUGS social		
Thu	Intro to QCD (A. SImonelli)	Fundamental symmetries with neutrons (N. Fomin)	Student Seminars	AM
				lunch
	SOLID: Parity Violation and Beyond (M. Nycz)	Lattice QCD (K. Orginos)	Poster Session	PM
	Recap with speakers / Al projects	Recap with speakers / Al projects		
Fri	Jlab tour	Fundamental symmetries with neutrons (N. Fomin)	Student Seminars	AM
				lunch
	Non perturbative strong dynamics (C. Weiss)	Lattice QCD (K. Orginos)	Prizes and Farewell	PM
			FAREWELL "PICNIC"	

# Keep an eye and a ear on:

- ☐ The HUGS 2025 web page
  - Detailed info on all school elements
  - Seminars and Poster Info coming soon
- Slack:
  - Most school announcements
  - Discussions, chats
    - Students, lecturers, organizers
- The (evolving) program on Indico
  - This is the official school timetable
- Live announcements in the classroom

Participate, engage

→ Make it even better!

### Lectures

- In person!
  - HUGS is optimized for in person participation
  - ...plus hands-on/recitations/recaps
- But main lectures will also be:
  - Recorded on Zoom
    - And later posted on YouTube
  - Zoom as a backup if you get sick or have some other emergency

# Speakers and topics

#### Main Lectures:

Jefferson Lab Science

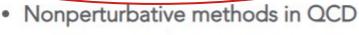
C. Gal - JLab

Introduction to QCD and factorization theorems

A. Simonelli - U. of Rome, Italy

Al for nuclear physics

C. Fanelli - William & Mary



C. Weiss - JLab

Hadron Spectroscopy

A. Austregesilo - JLab / A. Pilloni - U. of Messina, Italy)

• Fundamental symmetries with neutrons

N. Fomin - U. of Tennessee, Knoxville

Lattice QCD

K. Orginos -William & Mary

Measuring large-x quarks

A. Tadepalli - JLab

#### Several "recitations"

- Group projects
- Develop, present as talk+poster (optional, but why not?)

#### **Topical Seminars:**

- SoLID: Parity Violation and Beyond
   M. Nycz U. of Virginia
- Global QCD analysis
   W. Melnitchouk JLab
- The MOLLER experiment at Jefferson Lab TBA

### **Seminars & Posters**

- Student presentations (the best part of the school)
  - Seminars: 12 + 3 minutes
    - On the last Wed, Thu, Fri morning
  - Posters:
    - Last Thu afternoon
- Your choice which one
  - But all should: present + participate, ask questions, discuss
- Deadlines will be announced
  - Title & Abstract
  - Poster printing (at least a week before, I think)
- Peer refereed (+ poster judges)
  - Can win the coveted HUGS presentation prize(s) !!

### Weather

#### Usually:

- Hot and humid outside
- Freezing inside (heavy air conditioning in most public spaces)
- Mostly sunny, but increasingly it can rain

#### Suggestion:

- Bring sweater, light jacket, (umbrella?)
- Sunscreen, hat, sunglasses

#### Attention:

There are ticks in the woods → may be good to have bug repellent

### **Activities**

- $\square$  Lab tour just 4 you!  $\rightarrow$  Fri May 30
- ☐ Food!
  - Breakfast, May 27 @ 7:30
  - HUGS social #1: May 28 @ 5pm
  - HUGS social #2: June 4 @ 5pm
  - Poster session refreshments: June 12, afternoon
  - Farewell "picnic": June 13 @ 5pm
- Excursions
  - Sat, May 31
  - Sun, June 8
- Other things going on concurrently at the lab don't get too distracted!

# A partnership

### **Students**



# Enjoy your 3 weeks!

(and hang out a little longer now with us)

→ questions ? ←