

For maps see <https://tarheels.live/nuclei25/nuclei-2025-collaboration-meeting/hotel-information/>

Att times are Eastern time

When presenting, share your slides via <https://tennessee.zoom.us/j/87526015275>

### **Wednesday June 4**

#### **9:15-10:00**

9:15	Engel, Jon	Welcome / logistics
9:25	Papenbrock, Thomas	NUCLEI Overview
9:35	Wild, Stefan	ASCR Update
9:45	Furnstahl, Dick	website update
9:50	Hagen, Gaute (remote)	INCITE update

#### **10:00-11:00      Chair: Dick Furnstahl**

10:00	King, Garrett	Low-Energy Electron Scattering with QMC Using a Chiral Effective Field Theory Approach
10:15	Flores, Abraham	Quantum Monte Carlo and the Next Generation of Super-Computers or QMC Methods and GPUs
10:30	Rouson, Damian	nQMCC collaboration with Abe Flores
10:45	Ma, Yuanzhou	Multimodal Superfluidity in Nuclear Lattice EFT

#### **11:00    Break**

#### **11:15-12:00      Chair: Carol Woodward**

11:15	Hergert, Heiko	Update on IMSRG Developments
11:30	Heinz, Matthias	Ab Initio Overlap Integrals for $\mu$ to $e$ Conversion
11:45	Djaerv, Tor	TBD

**12:00-2:00**      **Lunch**

**2:00-3:00**      **Chair: Jon Engel**

2:00 Balos, Cody (remote)

2:15 Maris, Pieter

2:30 Yang, Chao

2:45 Papenbrock, Thomas

Updates on time integration in NUCLEI applications

No-Core Configuration Interaction Calculation of Light Nuclei

Eigensolver for NCSM and linear response

Progress with coupled-cluster theory

**3:00-3:45**      **Breakouts**

**3:45-4:00**      **Break**

**4:00-4:45**      **Breakouts**

AM and PM refreshments will be served after the meeting begins, while work is being performed and attendance is required during these times.

**Thursday June 5**

**9:15-10:15**      **Chair: Nicolas Schunck**

9:15 Lee, Seyong (remote)

9:30 Tews, Ingo

9:45 Marzouk, Youssef

10:00 Furnstahl, Dick

Directive-based high-level programming for heterogeneous, multi-node

Surrogate Models for Auxiliary-Field Diffusion Monte Carlo

TBD

Model Space Extrapolation as a Discrepancy

**10:15-10:30**      **Break**

**10:30-12:00**      **Chair: Stefan Wild**

10:30 Yuchi, Henry  
10:45 Sharma, Pranav  
11:00 Godbey, Kyle  
11:15 Schunck, Nicolas

Robust Discrepancy Modeling for Nuclear Density Functional Theory Calculation  
EFT for DFT: Variational Perturbation Theory for Effective Actions  
Progress on HFBFFT and DFT Emulators  
TBD

**11:45 Photo**

**12:00-2:00 Lunch**

**2:00-3:15 Chair: Heiko Hergert**

2:00 Li, Tong (remote)

Large-Scale Calculations Over the Nuclear Chart for Electromagnetic Responses with the Skyrme Finite Amplitude Method

2:15 Saito, Yukiya

Application of Self-Consistent Nuclear Models to the r Process

2:30 O'Neal, Jared

Software/Math/CS progress at Argonne

2:45 Roh, Dong Min

TBD

**3:00 Break**

**3:30-4:00 Chair: Pieter Maris**

3:30 Menickelly, Matt

Updates from POptUS

3:45 Bjelcik, Antonio (remote)

Computing Total Kinetic and Excitation Energies of Fission Fragments in Time-Dependent Energy Density Functional Theory

**Friday June 6**

**9:15-10:00**      **Chair: Menickelly, Matt**

9:15    Dai, Matthew

Two Body Currents in Beta Decay: Extension to Forbidden Decay

9:30    Ravlic, Ante

Global Calculations of Weak Decay Rates

**10:00-10:15**      **Break**

10:15    Papenbrock, Thomas

Summary

**10:45**    **Adjorn**