

Second Circular

NuQAI 2026: Nuclear Physics at the Quantum–AI Frontier

MIT, Cambridge MA · August 3–4, 2026

Co-organized by C2QA, the MIT Laboratory for Nuclear Science (LNS), and the NSF Institute for Artificial Intelligence and Fundamental Interactions (IAIFI)

Tentative Programme — Day 1, Monday, August 3, 2026

Time	Item	Speaker
8:30	Registration, coffee, and poster setup	
9:00	Welcome and charge to the workshop	Organizers
9:10	Session I — Quantum Simulation of Gauge Theories and Nuclear Matter	<i>Chair: P. Shanahan</i>
9:10	Invited talk (25 + 5)	Xiaojun Yao (U. Washington)
9:40	Invited talk (25 + 5)	Lena Funcke (U. Bonn)
10:10	Session discussion	All
10:40	Coffee break	
11:00	Session II — Nuclear Quantum Sensors and Precision Measurement	<i>Chair: R. Garcia Ruiz</i>
11:00	Invited talk (25 + 5)	David DeMille (Johns Hopkins)
11:30	Invited talk (25 + 5)	Nick Hutzler (Caltech)
12:00	Invited talk (25 + 5)	Edwin Pedrozo-Peñafiel (U. FI)
12:30	Working lunch, seated by breakout group	
14:00	Breakout discussions	
15:30	Coffee break	
16:00	Report-back from the breakout groups, and plenary discussion	
17:30	Adjourn	
18:00	Reception and workshop dinner	

Day 2, Tuesday, August 4, 2026

Time	Item	Speaker
8:30	Coffee	
9:00	Session III — Entanglement, Symmetry, and AI for Nuclear Theory and Experiment	<i>Chair: I. Chuang</i>
9:00	Invited talk (25 + 5)	Zohreh Davoudi (U. Maryland)

Time	Item	Speaker
9:30	Invited talk (25 + 5)	Silviu-Marian Udrescu (MIT)
10:00	Coffee break	
10:15	Invited talk (25 + 5)	Dean Lee (MSU/FRIB)
10:45	Invited talk (25+5)	Robert Huang (Caltech)
11:15	Open-microphone mini-session: short contributions from the community	<i>Moderator: O. Hen</i>
12:05	Working lunch, seated by breakout group	
13:00	Breakout discussions	
14:45	Coffee break	
15:00	Report-back from the breakout groups, and plenary discussion	
16:10	Synthesis and next steps	Organizers
16:50	Closing remarks and adjourn	O. Hen

The programme remains provisional; the open-microphone session welcomes short contributions from participants. Please contact the organizers if you would like to speak in that session.