

TN-QuMat Workshop 2025 Agenda

November 7, 2025, TSU, Nashville, TN

Zoom 1 (all lecture sessions; and hands-on ET 227):

<https://mtsu.zoom.us/j/8280379962?pwd=cnFDQkh0MHBTWDNDaThUbG9DTC94dz09>

Zoom 2: (hands-on ET 102): <https://mtsu.zoom.us/my/villanova.zoom.room>

Times are in Central Standard Time (CST)

Time	Title	Speaker	Location
08:30–08:45	Check-in & Food		Room 110
8:45–09:00	Welcome, overview of TN-QuMat program	Hanna Terletska (MTSU) Dean Lin Li (TSU) CRO and Associate VP Research Quincy Quick (TSU)	Room 110 & Zoom1
9:00–09:45	Plenary talk Advancing the frontiers of quantum computational science	Travis Humble (ORNL)	Room 110 & Zoom1
9:50–10:20	Advanced modeling of quantum materials	Thomas Maier (ORNL)	Room 110 & Zoom1
10:25–10:55	Using machine learning to navigate the materials design space	Hendrik Heinz (UC-Boulder)	Room 110 & Zoom1
11:00–11:15	Coffee Break		Foyer
11:15–11:45	A first look at first principles: introduction to density functional theory	Jack Villanova (MTSU)	Room 110 & Zoom1
11:50–12:20	Synthesis and characterization: making materials in the lab	Richard Mu (TSU)	Room 110 & Zoom1
12:25–12:30	Group Photo		Room 110
12:30–01:20	Lunch		Foyer
1:30–03:00	Hands-on Session 1	Many-body (ALPS, DCA++) ET 227 Zoom 1 Hanna Terletska (MTSU) Anirudha Mirmira (MTSU) Fei Li (VTech)	Ab initio (DFT) ET 102 Zoom 2 Jack Villanova (MTSU)
3:00–4:30	Hands-on Session 2	Quantum Computing ET 227 Zoom 1 Daniel Nino, Xanadu Ryan Harring, IONQ	AI for Materials ET 102 Zoom 2 Mariia Karabin (MTSU) Wasim Mondal (MTSU)
4:45–5:15	Experimental Lab Tour	Richard Mu	TIGER Institute
5:30	Adjourn		