

FY2023 RQS Annual Workshop June 21-23 Agenda

UMD Irbe Antonov (8125 Paint Branch Dr, College Park, MD 20742) unless otherwise stated

Day	Start Time	End Time	Duration	Details	Notes	Session Chair
Wednesday	8:30 AM	9:00 AM	0:30	Registration		
	9:00 AM	10:30 AM	1:30	Institute update	Overview of institute strategy and activities	Childs
	10:30 AM	11:00 AM	0:30	Break		
	11:00 AM	12:30 PM	1:30	Research presentations (45 minutes each)	Non-Abelian symmetry can increase entanglement entropy by Shayan Majidy (University of Waterloo) Cross-platform comparison of arbitrary quantum states by Yingyue Zhu (UMD)	Yunger Halpern
	12:30 PM	2:00 PM	1:30	Lunch		
	2:00 PM	2:45 PM	0:45	Seed grant accomplishment highlights (15 minutes each)	End-to-end applications of quantum linear system and differential equation algorithms by Dong An (UMD) Simulating Dissipative Electron Transfer with Trapped-Ion Systems by Mingyu Kang (Duke) Simulation of few-particle spin physics in TMD bilayer moiré structures by Mahmoud Jalali Mehrabad (UMD)	Kollár
	2:45 PM	4:00 PM	1:15	Outside Partner lightning talks (7 minutes each)	NIST Sandia National Labs IBM Booz Allen Hamilton Quantum Startup Foundry Zurich Noblis	Kollár

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	4:00 PM	6:00 PM	2:00	Parallel open networking sessions: a) Outside partner networking b) Faculty reception	Iribe Antonov lobby: Students and postdocs discussions with outside partners Iribe Antonov rooftop: Faculty reception	
Thursday	9:00 AM	10:30 AM	1:30	Research presentations (45 minutes each)	Combining Hard and Soft Constraints in Quantum Constraint-Satisfaction Systems by Kausthub Badrike (NCSU) Neural-Network Decoders for Measurement Induced Phase Transitions by Hossein Dehghani (UMD)	Schine
	10:30 AM	11:00 AM	0:30	Break		
	11:00 AM	12:30 PM	1:30	Break-out sessions: open discussion time	Research Challenge 1: Verified Quantum Simulations: Iribe Room 1116 (second floor) Research Challenge 2: Quantum Simulations Face the Environment: Iribe Gannon Auditorium Research Challenge 3: Scalable Quantum Simulations for Science and Technology: Iribe Antonov Auditorium	Liu Spielman Gorshkov, Davoudi
	12:30 PM	2:00 PM	1:30	Lunch		
	2:00 PM	4:00 PM	2:00	Education and Outreach	FY2022 activities, FY2023 plans	
	4:00 PM	6:00 PM	2:00	Poster session and lab tours	Physical Sciences Complex (PSC) 'Ellipse' (1st floor lobby, 4296 Stadium Dr, College Park, MD 20742)	
	6:00 PM	8:00 PM	2:00	Dinner	STAMP Union, Colony room (3972 Campus Dr, College Park, MD 20742)	
Friday	9:00 AM	10:30 AM	1:30	Research presentations (45 minutes each)	High threshold codes for neutral atom qubits with biased erasure errors by Kaavya Sahay (Yale) A strongly interacting photonic quantum walk using single atom beam splitters by Xingyuan Zheng (UMD)	Niu

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	10:30 AM	11:00 AM	0:30	Break		
	11:00 AM	12:30 PM	1:30	Break-out sessions: open discussion time	Research Challenge 1, 2, 3 - Iribe Antonov Auditorium Seed Grant Application - Iribe Gannon Auditorium	Liu Childs, Spielman
	12:30 PM	2:00 PM	1:30	Lunch		
	2:00 PM	2:00 PM	0:00	End		