

QEC Summer School Schedule

As of June 7 subject to change.

Week 1										
QEC Foundations Bosonic Code Foundations Programming QEC Decoders										
Time	Activity	Location/Room	Mon	Tue	Wed	Thr	Fri	Sat	Sun	
			4	5	6	7	8	9	10	
7:00AM - 8:55AM	Breakfast	Biddle Mansion - Winter Palace/West Terrace	Students Arrive	Breakfast					Study/Off Breakfast: 7:00AM - 9:30AM Lunch: 12:00PM - 1:30PM Dinner: 6:00PM - 9:00PM	
9:00AM - 10:30AM	Lecture I	New York		QEC Foundations Steve Flammia, AWS	Programming QEC Decoders James Wootton, IBM Quantum	Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS	Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS	QEC Foundations Steve Flammia, AWS		
10:30AM - 11:00AM	Morning Tea Break	Atrium Lobby		Morning Tea Break						
11:00AM - 12:30PM	Lecture II	New York		Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS	QEC Foundations Steve Flammia, AWS	QEC Foundations Steve Flammia, AWS	Programming QEC Decoders James Wootton, IBM Quantum	Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS		
12:30PM - 1:25PM	Lunch	Biddle Mansion - Winter Palace/West Terrace		Lunch						
1:30PM - 2:00PM	Q&A Sessions	Sunnyside		Q&A Session QEC Foundations Steve Flammia, AWS	Q&A Session Programming QEC Decoders James Wootton, IBM Quantum	Q&A Session Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS	Q&A Session Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS	Q&A Session QEC Foundations Steve Flammia, AWS		
2:00PM - 2:30PM		Lyndhurst		Q&A Session Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS	Q&A Session QEC Foundations Steve Flammia, AWS	Q&A Session QEC Foundations Steve Flammia, AWS	Q&A Session Programming QEC Decoders James Wootton, IBM Quantum	Q&A Session Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS		
2:30PM - 4:30PM	Unstructured Time	N/A		Unstructured Time						
4:30PM - 5:00PM	Open Problems, Student Talks, Crazy Ideas	New York		Unstructured Time	Unstructured Time	Open Problems - Part I QEC Foundations Steve Flammia, AWS	Crazy Ideas Session IDA Rules Drew Vandeth, IBM Quantum	Open Problems - Part II Bosonic Code Foundations Shruti Puri, Yale University		
5:00PM - 5:30PM						Open Problems - Part I Bosonic Code Foundations Shruti Puri, Yale University		Open Problems - Part II QEC Foundations Steve Flammia, AWS		
5:30PM - 6:00PM	Unstructured Time	N/A		Unstructured Time						
6:00PM - 6:55PM	Dinner	Biddle Mansion - Winter Palace/West Terrace	4th of July Event @ West Terrace	Opening Dinner @ Mary Duke Ballroom	Dinner	Social Event: Women in Quantum Social @ Carriage Room	Dinner			
7:00PM - 8:00PM	Guest Lectures/Social Time	New York		Keynote Speaker, Daniel Gottesman, UMD Mary Duke Ballroom	Guest Lecture Natalie Brown, Quantinuum		Guest Lecture Liang Jiang, The University of Chicago	Unstructured Time		
8:00PM - 9:00PM	Social	Atrium Lobby		Speaker Social	Speaker Social		Speaker Social			

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Week 2											
Fault Tolerance - Logistical Gates Experimental QEC - Bosonic Codes Programming QEC Decoders											
Time	Activity	Location/Room	Mon 11	Tue 12	Wed 13	Thr 14	Fri 15	Sat 16	Sun 17		
7:00AM - 8:55AM	Breakfast	Winter Palace/West Terrace	Breakfast							Hudson River Cruise @ 1:30PM Breakfast: 7:00AM - 9:30AM Lunch & Dinner: TBA	Study/Off Breakfast: 7:00AM - 9:30AM Lunch: 12:00PM - 1:30PM Dinner: 6:00PM - 9:00PM
9:00AM - 10:30AM	Lecture I	New York	Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Programming QEC Decoders James Wootton, IBM Quantum	Experimental QEC - Bosonic Codes Alec Eickbusch & Vladimir Sivak, Yale University	Experimental QEC - Bosonic Codes Alec Eickbusch, Yale University Vladimir Sivak, Yale University	Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum				
10:30AM - 11:00AM	Morning Tea Break	Atrium Lobby	Morning Tea Break								
11:00AM - 12:30PM	Lecture II	New York	Experimental QEC - Bosonic Codes Michel Devoret, Alec Eickbusch, & Vladimir Sivak, Yale University	Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Programming QEC Decoders James Wootton, IBM Quantum	Experimental QEC - Bosonic Codes Alec Eickbusch & Vladimir Sivak, Yale University				
12:30PM - 1:25PM	Lunch	Winter Palace/West Terrace	Lunch								
1:30PM - 2:00PM	Q&A Sessions	Sunnyside	Q&A Session Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Q&A Session Programming QEC Decoders James Wootton, IBM Quantum	Q&A Session Experimental QEC - Bosonic Codes Alec Eickbusch & Vladimir Sivak, Yale University	Social Event: IBM Yorktown Lab Visit	Q&A Session Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum				
2:00PM - 2:30PM		Lyndhurst	Q&A Session Experimental QEC - Bosonic Codes Michel Devoret, Alec Eickbusch, & Vladimir Sivak, Yale University	Q&A Session Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Q&A Session Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum		Q&A Session Experimental QEC - Bosonic Codes Alec Eickbusch & Vladimir Sivak, Yale University				
2:30PM - 4:30PM	Unstructured Time	N/A	Unstructured Time					Unstructured Time			
4:30PM - 5:00PM	Open Problems, Student Talks, Crazy Ideas	New York	Student Talks	Student Talks	Open Problems - Part I Experimental QEC - Bosonic Codes Alec Eickbusch & Vladimir Sivak, Yale University	Unstructured Time	Open Problems - Part II Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum				
5:00PM - 5:30PM					Open Problems - Part I Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum		Open Problems - Part II Experimental QEC - Bosonic Codes Alec Eickbusch & Vladimir Sivak, Yale University				
5:30PM - 6:00PM	Unstructured Time	N/A	Unstructured Time								
6:00PM - 6:55PM	Dinner	Winter Palace/West Terrace	Dinner								
7:00PM - 8:00PM	Guest Lectures/Social Time	New York	Guest Lecture Chen Wang, UMass Amherst	Unstructured Time	Guest Lecture TBD	Unstructured Time	Guest Lecture Guanyu Zhu, IBM Quantum				
8:00PM - 9:00PM	Social	Atrium Lobby	Speaker Social		Speaker Social		Speaker Social				

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Week 3										
QEC Decoding Experimental QEC - Trapped Ions Programming QEC Simulations										
Time	Activity	Location/Room	Mon 18	Tue 19	Wed 20	Thr 21	Fri 22	Sat 23		
								Sun 24		
7:00AM - 8:55AM	Breakfast	Winter Palace/West Terrace	Breakfast					Social Event TBA Breakfast: 7:00AM - 9:30AM Lunch & Dinner: TBA	Study/Off Breakfast: 7:00AM - 9:30AM Lunch: 12:00PM - 1:30PM Dinner: 6:00PM - 9:00PM	
9:00AM - 10:30AM	Lecture I	New York	QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS	Programming QEC Simulations Andrew Cross, IBM Quantum	Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum	Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum	QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS			
10:30AM - 11:00AM	Morning Tea Break	Atrium Lobby	Morning Tea Break							
11:00AM - 12:30PM	Lecture II	New York	Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum	QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS	QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS	Programming QEC Simulations Andrew Cross, IBM Quantum	Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum			
12:30PM - 1:25PM	Lunch	Winter Palace/West Terrace	Lunch							
1:30PM - 2:00PM	Q&A Sessions	Sunnyside	Q&A Session QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS	Q&A Session Programming QEC Simulations Andrew Cross, IBM Quantum	Q&A Session Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum	Q&A Session Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum	Q&A Session QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS			
2:00PM - 2:30PM		Lyndhurst	Q&A Session Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum	Q&A Session QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS	Q&A Session QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS	Q&A Session Programming QEC Simulations Andrew Cross, IBM Quantum	Q&A Session Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum			
2:30PM - 4:30PM	Unstructured Time	N/A	Unstructured Time							
4:30PM - 5:00PM	Open Problems, Student Talks, Crazy Ideas	New York	Student Talks	Student Talks	Open Problems - Part I Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum	Crazy Ideas Session	Open Problems - Part II QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS			
5:00PM - 5:30PM					Open Problems - Part I QEC Decoding Christopher Chubb, ETH Zurich Earl Campbell, AWS		Open Problems - Part II Experimental QEC - Trapped Ions Ken Brown, Duke University Ciaran Ryan-Anderson, Quantinuum			
5:30PM - 6:00PM	Unstructured Time	N/A	Unstructured Time							
6:00PM - 6:55PM	Dinner	Winter Palace/West Terrace	Dinner			Social Event: Diversity Panel @ Mary Duke Ballroom	Dinner			
7:00PM - 8:00PM	Guest Lectures/Social Time	New York	Guest Lecture Aleksander Kubica, AWS	Unstructured Time	Guest Lecture Michael Vasmer Perimeter Institute	Dinner	Guest Lecture Leo DiCarlo QuTech			
8:00PM - 9:00PM	Social	Atrium Lobby	Speaker Social		Speaker Social	Unstructured Time	Speaker Social			

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Week 4									
LDPC Codes Experimental QEC - Superconducting Qubits Programming QEC Simulations									
Time	Activity	Location/Room	Mon 25	Tue 26	Wed 27	Thr 28	Fri 29	Sat 30	Sun 31
7:00AM - 8:55AM	Breakfast	Winter Palace/West Terrace	Breakfast					Social Event TBA Breakfast: 7:00AM - 9:30AM Lunch & Dinner: TBA	Students Depart Breakfast: 7:00AM - 9:30AM
9:00AM - 10:30AM	Lecture I	New York	LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft	Programming QEC Simulations Andrew Cross, IBM Quantum	Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich	Experimental QEC - Superconducting Qubits Maika Takita, IBM Quantum Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich	LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft		
10:30AM - 11:00AM	Morning Tea Break	Atrium Lobby	Morning Tea Break						
11:00AM - 12:30PM	Lecture II	New York	Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich	LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft	LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft	Programming QEC Simulations Andrew Cross, IBM Quantum	Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich		
12:30PM - 1:25PM	Lunch	Winter Palace/West Terrace	Lunch			Social Event: IBM Research BBQ at Yorktown Date TBC	Lunch		
1:30PM - 2:00PM	Q&A Sessions	Sunnyside	Q&A Session LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft	Q&A Session Programming QEC Simulations Andrew Cross, IBM Quantum	Q&A Session Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich		Q&A Session LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft		
2:00PM - 2:30PM		Lyndhurst	Q&A Session Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich	Q&A Session LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft	Q&A Session LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft		Q&A Session Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich		
2:30PM - 4:30PM	Unstructured Time	N/A	Unstructured Time			Crazy Ideas Session	Unstructured Time		
4:30PM - 5:00PM	Open Problems, Student Talks, Crazy Ideas	New York	Student Talks	Student Talks	Open Problems - Part I Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich		Open Problems - Part II LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft		
5:00PM - 5:30PM					Open Problems - Part I LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft		Open Problems - Part II Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich		
5:30PM - 6:00PM	Unstructured Time	N/A	Unstructured Time					Closing Dinner @ Mary Duke Ballroom	
6:00PM - 6:55PM	Dinner	Winter Palace/West Terrace	Dinner						
7:00PM - 8:00PM	Guest Lectures/Social Time	New York	Guest Lecture Anirudh Krishna, Stanford University	Unstructured Time	Guest Lecture, Ted Yoder, IBM Quantum	Social Event TBA	Keynote Speaker Sergey Bravyi IBM Quantum		
8:00PM - 9:00PM	Social	Atrium Lobby	Speaker Social		Speaker Social		Speaker Social		