As of July 13 subject to change.

Week 1

QEC Foundations
Bosonic Code Foundations
Programming OEC Decoders

					Programming QEC Decoders						
Time	Activity	Location/Room	Mon	Tue	Wed 6	Thr 7	Fri 8	Sat 9	Sun		
7:00AM - 8:55AM		Biddle Mansion - Winter Palace/West Terrace	4	5	10						
9:00AM - 10:30AM	Lecture I	New York		Meet @ 8:45AM for First Day Logistics 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 - 11:000AM	Morning Tea Break	Atrium Lobby									
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		New York	Students Arrive	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	Study/Off Breakfast: 7:00AM - 9:30AM Lunch: 12:00PM - 1:30PM		
2:00PM - 2:30PM	-Q&A Sessions	New York		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	N/A New York	Unstructured Time/ Office Hours with Admin Team for on-site support		Unstructured Time	Unstructured Time	Unstructured Time	Dinner: 6:00PM - 9:00PM		
4:30PM - 5:00PM	Open Problems,	No. Ye /		Unstructured Time	Unstructured Time	Open Problems - Part I QEC Foundations Steve Flammia, AWS	Introduction to QEC Framework @ 4:00PM Drew Vandeth, IBM Quantum	Open Problems - Part II Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS Open Problems - Part II QEC Foundations Steve Flammia, AWS			
5:00PM - 5:30PM	Student Talks, Crazy Ideas	alks, New York				Open Problems - Part I Bosonic Code Foundations Shruti Puri, Yale University Arne Grimsmo, AWS	Crazy Ideas Session IDA Rules Drew Vandeth, IBM Quantum				
5:30PM - 6:00PM	Unstructured Time	N/A				1					
6:00PM - 6:55PM	Dinner	Biddle Mansion - Winter Palace/West Terrace	4th of July Event	Opening Dinner @ Mary Duke Ballroom Opening Remarks Zaira Nazario, IBM Research	Dinner	Social Event: Women in Quantum Social & Dinner	Dir	iner			
7:00PM - 8:00PM	Guest Lectures/Socia Time	l New York	@ Duke Terrace	Keynote Speaker, Daniel Gottesman, UMD Mary Duke Ballroom	aniel Gottesman, UMD Natalie Brown, Quantinuum	@ West Terrace	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

		1			Programming QEC Decoders			1	
Time	Activity	Location/Room	Mon	Tue	Wed	Thr	Fri	Sat	Sun
		,	11	12	13 Breakfast	14	15	16	17
7:00AM - 8:55AM 9:00AM - 10:30AM		Winter Palace 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 & Volodymyr Sivak, Yale University	Experimental QEC - Bosonic Codes Alec Eickbusch, Yale University Volodymyr Sivak, Yale University	Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum		
10:30AM - 11:000AMI	Morning Tea Break	Atrium Lobby			Morning Tea Break	Oniversity			
11:00AM - 12:30PM		New York	Experimental QEC - Bosonic Codes Michel Devoret, Alec Eickbusch, & Volodymyr 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 & Volodymyr Sivak, Yale University	-	
12:30PM - 1:25PM	Lunch	Winter Palace			Lunch				
1:30PM - 2:00PM	New York -Q&A Sessions	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 & Volodymyr Sivak, Yale University	Q&A Session Experimental QEC - Bosonic Codes Alec Eickbusch & Volodymyr Sivak, Yale University	Q&A Session Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Breakfast: 7:00AM - 9:30AM @Winter Palace	Study/Off	
2:00PM - 2:30PM		New York	Q&A Session Experimental QEC - Bosonic Codes Michel Devoret, Alec Eickbusch, & Volodymyr Siyak, Yale	Q&A Session Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiOuantum	Q&A Session Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski. PsiOuantum	Q&A Session Programming QEC Decoders James Wootton, IBM Quantum	Q&A Session Experimental QEC - Bosonic Codes Alec Eickbusch & Volodymyr Sivak, Yale University	Lunch: 11:00AM - 11:15AM Lunch will be a boxed lunch provided in the Atrium Hudson River Cruise Bus Departs: 11:30AM	Breakfast: 7:00AM - 9:30AM @Winter Palace Lunch: 12:00PM - 1:30PM @Winter Palace
2:30PM - 4:30PMI	Unstructured Time	N/A	TOTAL TALL		Cruise: 1:00PM - 4:30PM	Dinner: 6:00PM - 9:00PM @ Cellar 49 (Lower level of			
	M Open Problems, Student Talks, Crazy Ideas	oblems, New York Student Talks udent Talks, azy Ideas	Student Talks	Open Problems - Part I Experimental QEC - Bosonic Codes Alec Eickbusch & Volodymyr Sivak, Yale University	- Crazy Ideas Session	Open Problems - Part II Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Dinner: 6:00PM - 9:00PM @ Cellar 49 (Lower level of Biddle Mansion)	Biddle Mansion)	
5:00PM - 5:30PM			Stagent fails		Open Problems - Part I Fault Tolerance - Logical Gates Ben Brown, IBM Quantum Daniel Litinski, PsiQuantum	Guary races session	Open Problems - Part II Experimental QEC - Bosonic Codes Alec Eickbusch & Volodymyr Sivak, Yale University		
5:30PM - 6:00PM	Unstructured Time	N/A							
6:00PM - 6:55PM	111110	Winter Palace			Dinner			-	
	Guest	New York	Guest Lecture Chen Wang, UMass Amherst	Unstructured Time	Unstructured Time	Unstructured Time	Guest Lecture Guanyu Zhu, IBM Quantum		
8:00PM - 9:00PM	Social	Atrium Lobby	Speaker Social				Speaker Social		

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Week 3

QEC Decoding Experimental QEC - Trapped Ions Programming QEC Simulations

	1	_		T	Programming QEC Simulations				
Time	Activity	Location/Room	Mon	Tue	Wed	Thr	Fri	Sat	Sun
		· ·	18 Breakfast @ Library and the	19	20 Breakfast @ Library and the	21	22	23	24
7:00AM - 8:55AM	Breakfast	Winter Palace/West	Music Room (Rooms before	Breakfast @ Winter Palace	Music Room (Rooms before	Breakfast			
		Terrace	Winter Palace)	ç	Winter Palace)				
			QEC Decoding		Experimental QEC - Trapped	Experimental QEC - Trapped	QEC Decoding		
9:00AM - 10:30AM			Christopher Chubb, ETH	Programming QEC	Ions	Ions	Christopher Chubb, ETH		
	Lecture I	New York	Zurich	Simulations	Ken Brown, Duke University	Ken Brown, Duke University	Zurich		
	Eccture 1		Earl Campbell, Riverlane &	Andrew Cross, IBM Quantum	Ciaran Ryan-Anderson,	Ciaran Ryan-Anderson,	Earl Campbell, Riverlane &		
			University of Sheffield		Quantinuum	Quantinuum	University of Sheffield		
40.2044 44.00044	Morning Tea				Marcha Tan Barah			_	
10:30AM - 11:000AM	Break	Atrium Lobby			Morning Tea Break				
			Experimental QEC - Trapped	QEC Decoding	QEC Decoding		Experimental QEC - Trapped		
			Ions	Christopher Chubb, ETH	Christopher Chubb, ETH	Programming QEC	Ions		
11:00AM - 12:30PM	Lecture II	New York	Ken Brown, Duke University	Zurich	Zurich	Simulations	Ken Brown, Duke University		
			Ciaran Ryan-Anderson,	Earl Campbell, Riverlane &	Earl Campbell, Riverlane &	Andrew Cross, IBM Quantum	Ciaran Ryan-Anderson,		
			Quantinuum	University of Sheffield	University of Sheffield		Quantinuum		
		Winter	Lunch @ Library and the		Lunch @ Library and the			-	
12:30PM - 1:25PM	Lunch	Palace/West	Music Room (Rooms before	Lunch @ Winter Palace	Music Room (Rooms before	Lunch			
		Terrace	Winter Palace)		Winter Palace)				
			Q&A Session		Q&A Session	Q&A Session	Q&A Session		
			QEC Decoding	Q&A Session	Experimental QEC - Trapped	Experimental QEC - Trapped	QEC Decoding		
1:30PM - 2:00PM		New York	Christopher Chubb, ETH	Programming QEC	Ions	Ions	Christopher Chubb, ETH		
1.30FM - 2.00FM		New TOIK	Zurich	Simulations	Ken Brown, Duke University	Ken Brown, Duke University	Zurich	Social Event TBD	Study/Off
			Earl Campbell, Riverlane &	Andrew Cross, IBM Quantum	Ciaran Ryan-Anderson,	Ciaran Ryan-Anderson,	Earl Campbell, Riverlane &	Coolar Event 122	otady, o
	Q&A Sessions		University of Sheffield		Quantinuum	Quantinuum	University of Sheffield	Breakfast: 7:00AM - 9:30AM	Breakfast: 7:00AM - 9:30AN
	Qua Sessions		Q&A Session	Q&A Session	Q&A Session		Q&A Session	@ Winter Palace	@ Winter Palace
		New York	Experimental QEC - Trapped	QEC Decoding	QEC Decoding	Q&A Session	Experimental QEC - Trapped	Willier Funded	w winter ratace
2:00PM - 2:30PM			Ions	Christopher Chubb, ETH	Christopher Chubb, ETH	Programming QEC	Ions	Lunch: 12:00PM - 1:30PM	Lunch: 12:00PM - 1:30PM
2.00111 2.50111			Ken Brown, Duke University	Zurich	Zurich	Simulations	Ken Brown, Duke University	@ Winter Palace	@ Winter Palace
			Ciaran Ryan-Anderson,	Earl Campbell, Riverlane &	Earl Campbell, Riverlane &	Andrew Cross, IBM Quantum	Ciaran Ryan-Anderson,	@ William Calabo	
			Quantinuum	University of Sheffield	University of Sheffield		Quantinuum	Dinner: 6:00PM - 9:00PM	Dinner: 6:00PM - 9:00PM
2:30PM - 4:30PM	Unstructured	N/A	Unstructured Time		Unstructured Time			@ Library and the Music Room (@ Library and the Music Roo
2.30FM - 4.30FM	Time	New York				Offstructured fillie		(Rooms before Winter Palace)	(Rooms before Winter Palac
					Open Problems - Part I		Open Problems - Part II	1	
	Open				Experimental QEC - Trapped		QEC Decoding		
4:30PM - 5:00PM					Ions		Christopher Chubb, ETH		
4:30PM - 5:00PM					Ken Brown, Duke University		Zurich		
		n			Ciaran Ryan-Anderson,		Earl Campbell, Riverlane &		
	Problems,	New York	Student Talks @ 4:00PM	Student Talks @ 4:00PM	Quantinuum	- Crazy Ideas Session	University of Sheffield		
	Student Talks,	New York			Open Problems - Part I	Clazy Ideas Session	Open Problems - Part II		
	Crazy Ideas	zy Ideas			QEC Decoding		Experimental QEC - Trapped		
5:00PM - 5:30PM					Christopher Chubb, ETH		Ions		
					Zurich		Ken Brown, Duke University		
					Earl Campbell, Riverlane &		Ciaran Ryan-Anderson,		
					University of Sheffield		Quantinuum		
5:30PM - 6:00PM	Unstructured	N/A			Unstructured Time				
	Time	Winter				Social Event:		+	
6:00PM - 6:55PM	Dinner	Winter Palace/West Dinn	Dinner	Dinner @ Winter Palace	Dinner	Social Event: Diversity Panel @ Mary Duke	Dinner		
3.00111 0.00111	5	Terrace	Dillio	Sior @ Willion I diace	Diffici	Ballroom	Dillio		
	Guest		0		Guest Lecture	Data com	0	†	
7:00PM - 8:00PM		New York	Guest Lecture		Michael Vasmer,	Dinner @ Mary Duke Ballroom	Guest Lecture		
	Time		Aleksander Kubica, AWS	Unstructured Time	Perimeter Institute	,	Leo DiCarlo, TU Delft		
8:00PM - 9:00PM		Atrium Lobby	Speaker Social		Speaker Social	Unstructured Time	Speaker Social	1	
5.00FM	Journal	AIRIGHT LODDY	Speaker Social		Speaker Social	Silstructured fillie	Speaker Social		

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Week 4

LDPC Codes

Experimental QEC - Superconducting Qubits

Programming QEC Simulations

,		1	1		Programming QEC Simulations			T	ı
Time	Activity	Location/Room		Tue 26	Wed 27	Thr 28	Fri 29	Sat 30	Sun
7:00AM - 8:55AM	Breakfast	Winter Palace/West Terrace		kfast	Breakfast @ Winter Palace	Breakfast @ Winter Palace Lecture begins at 8:30AM Experimental QEC -	Breakfast	CL	31
9:00AM - 10:30AM	M - 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	Superconducting Qubits Maika Takita, IBM Quantum Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich	LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft		
	1:000AM Break Atrium Lobby			Morning Tea Break	Lecture begins at 10:00. Programming QEC		Morning Tea Break	1	l
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	Simulations Andrew Cross, IBM Quantum Bus leaves at 11:45AM	Experimental QEC - Superconducting Qubits Maika Takita & Antonio Córcoles, IBM Quantum Andreas Wallraff, ETH Zurich		
12:30PM - 1:25PM	Winter M Lunch Palace/West Terrace		Lunch		Lunch @ Winter Palace	© Winter Palace Social Event: IBM Research BBQ & Lab Tour at IBM Yorktown	Lunch	Lunch	
1:30PM - 2:00PM		New York	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	- TOUL AT IOM TOLKTOWN	Q&A Session LDPC Codes Nikolas Breuckmann, UCL Nicolas Delfosse, Microsoft	Social Event TBA Breakfast: 7:00AM - 9:30AM @ Winter Palace	Students Depart Breakfast: 7:00AM - 9:30AN
2:00PM - 2:30PM	Q&A Sessions	New York	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	Lunch: 12:00PM - 1:30PM @ Winter Palace	Bleaklast. 7.00AH - 2.30AH
2:30PM - 4:30PM	Unstructured	N/A		ured Time	- Unstructured Time		Unstructured Time		
4:30PM - 5:00PM	Time Open Problems,	New York	Student Talks @ 4:00PM	Student Talks @ 4:00PM	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	Student Talks, Crazy Ideas	New York			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		,		
6:00PM - 6:55PM		Winter Palace/West Terrace	Dir	nner	Dinner @ Winter Palace	Dinner @ Winter Palace	Dinner	Closing Dinner & Keynote Speaker	
7:00PM - 8:00PM	Guest Lectures/Social Time	New York	Guest Lecture Anirudh Krishna, Stanford University	Unstructured Time	Guest Lecture, Ted Yoder, IBM Quantum	Unstructured Time	Social Event TBA	Sergey Bravyi, IBM Quantum @ Carriage House	
8:00PM - 9:00PM		Atrium Lobby	Speaker Social		Speaker Social			Speaker Social	