## Tentative AGENDA (as of October 12-2016)

GeneExpression Systems, Appasani Research Conferences of USA & University of Cambridge Presents:

## **Quantum Science Symposium Europe – 2016**

Venue:Peterhouse College, University of Cambridge, Cambridge, UK
Organizer: Krishnarao Appasani, PhD. GeneExpression Systems, Inc. of USA

**Date:**November 1 - 2, 2016

	NOVEMBER 1, TUESDAY		NOVEMBER 2, WEDNESDAY
8:00 AM	REGISTRATION OPEN:Coffee/Tea & Refreshments	8:00 AM	REGISTRATION OPEN:Coffee/Tea & Refreshments
8:45 – 10:30 AM	INAGURAL SESSION I: QUANTUM SYSTEMS Chair: Koji AZUMA, PhD, JAPAN	8:45 – 10:35 AM	SESSION V: SEMICONDUCTORS Chair:Robert H. HADFIELD, PhD. SCOTLAND-UK
8.30 – 8: 45 AM	Welcome Note & Introduction of Keynote Speaker by ORGANIZER - Krishnarao APPASANI, PhD., MBAGeneExpression Systems,	8:45 – 8:50 AM	Introduction of Keynote Speaker by ORGANIZER - Krishnarao APPASANI, PhD., MBA GeneExpression Systems, USA
8:45 – 9:15 AM	KEYNOTE LECTURE By: Sir Michael Pepper, PhD, DSc, FREng, FRS Pender Professor of Nanoelectronics University College London, UNITED KINGDOM Title: Quantum Transport in One Dimension	8:50 – 9:20 AM	Robert H Hadfield, PhD. Professor of Photonics University of Glasgow, SCOTLAND- UNITED KINGDOM Title: Infrared single photon detection with superconducting nanowires
9:15 – 9: 40 AM	Koji Azuma, PhD.Researcher NTT Basic Research Labs, JAPAN Title:Theory of the quantum internet	9:20 – 9:45 AM	Ziad Melhem, PhD. Alliances Manager Oxford Instruments NanoScience, UNITED KINGDOM Title:Superconducting magnets for nanotechnology applications
9:40 – 10: 05 AM	Jens Martin, PhD. Associate Professor National University of Singapore, SINGAPORE Title:Two-dimensional electronic systems (2DES) at oxide interfaces at low charge carrier density	9:45 – 10: 10 AM	Stephen Giblin, PhD. Research Investigator National Physical Laboratory, UNITED KINGDOM Title: Electron pumps and re-definition of the SI unit system
10:05 – 10: 30 AM	Masaki Tezuka, PhD. Assistant Professor Kyoto University, JAPAN Title:Topological properties of quasi-periodic quantum systems	10:10 – 10: 35 AM	Keisuke Fujii, PhD. Assistant Professor Photon Science Center, The University of Tokyo, JAPAN Title:Quantum supremacy in highly mixed state quantum computation
10:30 – 11:00 AM	30 Minutes AM Break	10:35 – 11:00 AM	25 Minutes AM Break
11:00 – 12:45 PM	SESSION II: SEMICONDUCTORS, QUANTUM COMBS & BIOLOGY Chair: Matthew LAHAYE, PhD. USA	11:00 – 12:45 PM	SESSION VI: QUANTUM BITS and SUPERFLUID HELIUM Chair: Thierry Ferrus, PhD. UNITED KINGDOM
11:00 – 11:30 AM	KEYNOTE LECTURE By: Henning Sirringhaus, PhD., FRS Hitachi Professor of Electron Device Physics Cavendish Lab-University of Cambridge, UK Title: SPIN and charge Transport Physics of Organic Semiconductors	11:00 – 11:30 AM	Thierry Ferrus, PhD. Research scientist Hitachi Cambridge Lab-University of Cambridge, UK Title:Charge qubit states in silicon
11:30 – 11:55 PM	Matthew LaHaye, PhD.Assistant Professor Syracuse University, USA Title: Measurement of Nanoresonator-Qubit	11:30 – 11:55 PM	Hiromitsu Takeuchi, PhD. Lecturer Osaka C ity University, JAPAN Title:Quantum hydrodynamic instability in superfluid <sup>3</sup> He

	interactions in a hybrid quantum electromechanical System		
11:55 – 12:20 PM	Michael Kues, Ph.D. Marie Curie Fellow Université du Québec, CANADA Title:Scalable quantum state generation with on- chip optical frequency combs	11:55 – 12:20 PM	Glen Harris, PhD.Postdoctoral Research Associate Yale University, USA Title: Laser control of superfluid Helium-4
12:20 – 12:45 PM	Iannis Kominis, PhD. Assistant Professor University of Crete, GREECE Title:Quantum biology, the new synthesis	12:20 – 12:45 PM	Francesco Massel, PhD. Principal Investigator University of Jyvaskyla, FINLAND Title:Reservoir engineering: selected results and future perspectives
12:45 – 1:45 PM	Lunch Break I hour (Lunch Provided)	12:45 – 2:00 PM	Lunch Break 1 hour and 15 min (ON YOUR OWN)
1:45 – 3:30 PM	SESSION III: GRAPHENES Chair: Ute KAISER, PhD. GERMANY	2:00 – 3:30 PM	SESSION VII: YOUNG SCIENTIST'S BREAKTRHOUGHSChair: Christian Schilling, PhD.UNITED KINGDOM
1:45 – 2:15 PM	Ute Kaiser, PhD. Professor of Materials Science University of Ulm, GERMANY Title: Atomic-Resolution Low-Voltage Aberration- Corrected Transmission Electron Microscopy to Unravel Properties of New Quantum Materials	2:00 – 2:30 PM	Christian Schilling, PhD. Research Associate University of Oxford, UNITED KINGDOM Title: Fermionic Exchange Symmetry: Quantifying its Influence beyond Pauli's Exclusion Principle
2:15 – 2:40 PM	Branden Kappes, PhD. Research Asst. Professor Colorado School of Mines, USA Title: Computationally guided synthesis for heterogeneous catalysis	2:30 – 2:45 PM	Matthias Brauns, PhD. SHORT PRESENTATION Postdoc., University of Twente, NETHERLANDS Title: Spins in Ge-Si nanowire quantum dots
2:40 – 3:05 PM	Neophytos Neophytou, PhD. Associate Professor University of Warwick, UNITED KINGDOM Title: Phonon transport studies in ultranarrow graphenenanoribbons: Understanding features of heat flow in 1D	2:45 – 3:00 PM	Felice Torrisi, PhD. Lecturer of Electrical Engineering SHORT PRESENTATION University of Cambridge, UNITED KINGDOM Title:Graphene and Related Materials Inks for Flexible (Opto)electronics
3:05 – 3:30 PM	Aires Ferreira, PhD. Royal Society URF in Physics University of York, UNITED KINGDOM Title:Towards all-electric spintronics in graphene	3:00 – 3:15 PM	Maya Narayanan Nair, PhD. SHORT PRESENTATION Postdoctoral Fellow, Université Paris Sud, FRANCE Title: Bandgap and Structural Periodicities of Buffer layer Graphene
		3:15 – 3:30 PM	Ivan J. Vera Marun, PhD. SHORT PRESENTATION Lecturer in Physics, University of Manchester, UK Title:Novel architectures for grapheme spintronics
3:30 – 4:00 PM	PM Break 30 min	3:30 – 3.45 PM	PM Break 15 min
4:00 – 6:15 PM	SESSION IV: QUANTUM COMPUTING & COMMUNICATIONS Chair: Artur GLEIM, PhD. RUSSIA	3:45 – 6:00 PM	SESSION VIII: NOVEL MOLECULE INVESTIGATIONS Chair: Yasuhiro Tokura, PhD. JAPAN
4:00 – 4:30 PM	Artur V. Gleim, PhD.Head, QIC Laboratory ITMO University, RUSSIA Title:Subcarrier wave quantum communication	3:45 – 4: 15 PM	Yasuhiro Tokura, PhD. Professor of Applied Sciences University of Tsukuba, JAPAN Title:Dynamical quantum transport in nanostructures

	networks with software-defined routing		
4:30 – 4:55 PM	Charles Hill, PhD. Post doctoral Fellow in Physics	4:15 – 4:40 PM	Michael Wörner, PhD. Group Leader
	University of Melbourne, AUSTRALIA		Max-Born Institute for Optics, <b>GERMANY</b>
	<b>Title:</b> Architectures and quantum control for silicon		<b>Title:</b> Two-phonon quantum coherences in InSb observed by
	based quantum computing		two-dimensional three-pulse THz spectroscopy
4: 55 – 5:20 PM	Saverio Russo, PhD. Associate Professor	4:40 – 5:05 PM	Lijian Zhang, PhD.Professor of Quantum Electronics
	University of Exeter, UNITED KINGDOM		Nanjing University, Nanjing, P.R. China
	Title: TBA		<b>Title:</b> Quantum plasmonics: characterization and applications
5:25 – 5:50 PM	Mohammad Al-Amri, PhD. Associate Professor	5:05 – 5:30 PM	
	King Abdulaziz City for Sci. & Tech. Saudi Arabia		SPEAKER SPOT OPEN
	<b>Title:</b> Can classical channel be eliminated, and yet		
	counterfactual quantum teleportation can be		
	achieved		
5:35 – 6:00 PM	Kapil Kumar Sharma, PhD. Post-doctoral Fellow	5:30 – 5:55 PM	
	Indian Institute of Bombay, INDIA		SPEAKER SPOT OPEN
	Title: Bound entanglement and its distillation		
	through Dzyaloshisnhkii-Moriya interaction		
		5:55 – <b>6:00 PM</b>	CLOSING REMARKS
6:00 PM	End of 1 <sup>st</sup> day session		End of Conference