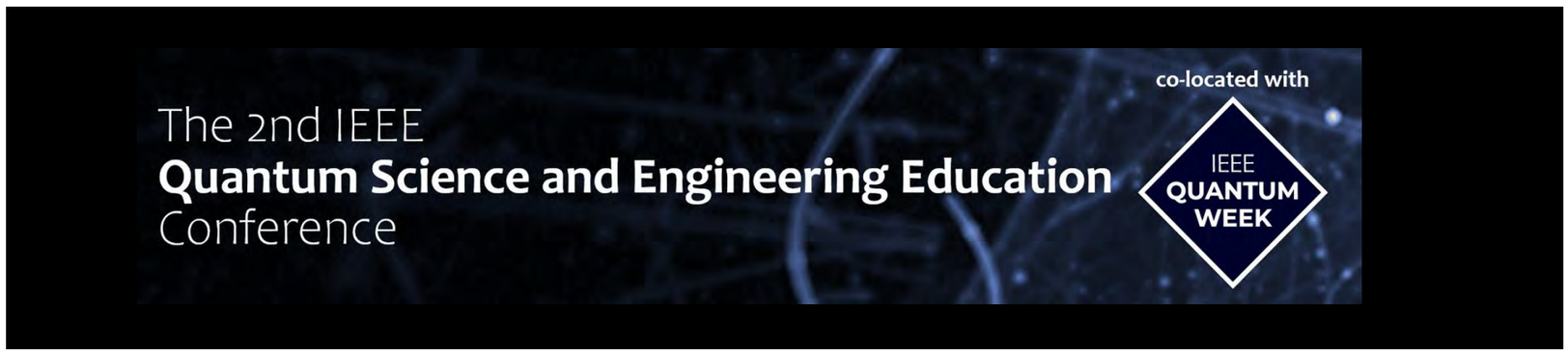

Sun, Sep 17 **Hyatt Regency Bellevue — 2nd Floor Cedar A**

9:30 - 10:00	**BREAK**
QSEEC01	**Welcome to QSEEC 2023 and Quantum in High Schools** **Session Chair: Marek Osinski (University of New Mexico, USA)**
10:00 - 10:15	**Opening Remarks: Marek Osinski, QSEEC23 Chair (University of New Mexico, USA)**
10:15 - 11:00	**Keynote: Is teaching quantum in high school crazy?** Karen Jo Matsler (The University of Texas at Arlington, USA)
11:00 - 11:30	**Best Paper: QCaMP: Introducing quantum computing in high schools:** Megan Ivory (Sandia National Laboratories), Alisa Bettale (Lawrence Berkeley National Laboratory), Rachel Boren (New Mexico State University), Ashlyn Burch (Sandia National Laboratories), Jake Douglass (Sandia National Laboratories), Lisa Hackett (Sandia National Laboratories), Boris Kiefer (Sandia National Laboratories), Alina Kononov (Sandia National Laboratories, USA), Maryanne Long (New Mexico State University), Mekena Metcalf (HSBC International Banking, USA), Tzula Propp (New Mexico State University), Mohan Sarovar (Sandia National Laboratories)
11:30 - 13:00	**LUNCH**
QSEEC02	**Quantum in K-12** **Session Chair: Lia Yeh (University of Oxford, UK)**
13:00 - 13:15	**Leveraging dual enrollment programs to expand secondary education in quantum computation: Derrick Tucker (The University of Texas at Austin, USA)**
13:15 - 13:30	**Developing the quantum pipeline with K-12 teachers:** Nancy Holincheck (George Mason University, USA), Jessica Rosenberg (George Mason University, USA), Michele Colandene (George Mason University, USA), Ben Dreyfus (George Mason University, USA)
13:30 - 13:45	**Teaching quantum computing in K-12 Career and Technical Education (CTE):** Mark Newburn (Nevada K-12 Computer Science Advisory Committee, USA)
13:45 - 14:00	**Can quantum computing be taught to middle school students?** Gabbie Meis (The Coding School: Qubit by Qubit, USA), Kiera Peltz (The Coding School: Qubit by Qubit, USA)
14:00 - 14:15	**Quantum Picturalism: Learning quantum theory in high school:** Selma Dündar-Coecke (Centre for Educational Neuroscience & Quantinuum, UK), Lia Yeh (University of Oxford, UK), Caterina Puca (Quantinuum, UK), Sieglinde M.-L. Pfaendler (IBM, Germany), Muhammad Hamza Waseem (University of Oxford, UK), Thomas Cervoni (Quantinuum, UK), Stefano Gogioso (University of Oxford, UK), Aleks Kissinger (University of Oxford, UK), Bob Coecke (Quantinuum, UK)
14:15 - 14:30	**Educating to the "culture" of quantum technologies: Concepts for public awareness:** Zeki Can Seskir (Karlsruhe Institute of Technology, Germany)
14:30 - 15:00	**BREAK**
QSEEC03	**Quantum Pedagogy** **Session Chair: Brian La Cour (The University of Texas at Austin, USA)**
15:00 - 15:30	**Poster Flash Talks**
15:30 - 15:45	**Investigating students' strengths and difficulties in quantum computing:** Tunde Kushimo (Southern Methodist University, USA), Beth Thacker (Southern Methodist University, USA)
15:45 - 16:00	**Undergraduate student knowledge and interest in quantum:** Jessica Rosenberg (George Mason University), Nancy Holincheck (George Mason University, USA), Michele Colandene (George Mason University, USA)
16:00 - 16:15	**Quantum concepts teaching facilitated with a classical optics platform:** Xiaofeng Qian (Stevens Institute of Technology, USA)
16:15 - 16:30	**QuCS: A lecture series on quantum computer software and system:** Zhiding Liang (University of Notre Dame, USA), Hanrui Wang (Massachusetts Institute of Technology, USA)
16:30 - 16:45	**The Quantum Computing Conceptual Survey: Preliminary work and next steps:** Josephine Meyer (University of Colorado Boulder, USA), Gina Passante (California State University, Fullerton, USA), Steven J. Pollock (University of Colorado Boulder, USA), Bethany R. Wilcox (University of Colorado Boulder, USA)
16:45 - 17:00	**BREAK**
QSEEC04	**Posters** **Session Chair: Lia Yeh (University of Oxford, UK)**
17:00 - 18:00	**Interactive Poster Session**

Sun, Sep 17 **Hyatt Regency Bellevue — 2nd Floor Cedar B**

11:30 - 13:00	**LUNCH**

QSEEC05	**Quantum Teaching** **Session Chair: Marek Osinski (University of New Mexico, USA)**
13:00 - 13:15	**Taiwan Student Quantum Computer Society:** Ran-Yu Chang (National Yang Ming Chiao Tung University, Taiwan), Yu-Chao Hsu (National Cheng Kung University, Taiwan), Tsung-Wei Huang (Chung Yuan Christian University, Taiwan)
13:15 - 13:30	**How to use chatbots for learning and teaching quantum programming:** Pablo Suárez Vieites (University of Galway, Ireland)
13:30 - 14:30	**Tutorial 1: Quantum Abacus:** Dan-Adrian German, Alex Alani (Indiana University Bloomington, USA)

14:30 - 15:00	**BREAK**

QSEEC06	**Ethics and Society** **Session Chair: Marek Osinski (University of New Mexico, USA)**
15:00 - 16:00	**Tutorial 2: Quantum Ethics:** Josephine Meyer (University of Colorado Boulder, USA)

16:00 - 17:00	**BREAK**

QSEEC07	**Teaching Quantum in Pictures** **Session Chair: Marek Osinski (University of New Mexico, USA)**
17:00 - 18:00	**Tutorial 3: Quantum in Pictures:** Stefano Gogioso (University of Oxford, UK)

Mon, Sep 18 **Hyatt Regency Bellevue — 2nd Floor Regency C**

9:30 - 10:00	**BREAK**
QSEEC08	**Quantum Outreach and Activities** **Session Chair: Lia Yeh (University of Oxford, UK)**
10:00 - 10:30	**Invited Talk: A physics lab inside your head: Quantum thought experiments as an educational tool:** Maria Violaris (University of Oxford, UK)
10:30 - 10:45	**Teaching quantum computing using Microsoft Quantum Development Kit & Azure Quantum:** Mariia Mykhailova (Microsoft, USA)
10:45 - 11:00	**Quantum computing educational tools based on the Quantum Enigmas video series:** Ghislain Lefebvre (Institut Quantique, Université Sherbrooke, Canada)
11:00 - 11:15	**Design of quantum machine learning course for a computer science program:** Sathish Kumar (Cleveland State University, USA), Temitope Adeniyi (Cleveland State University, USA), Ahmad Alomari (Cleveland State University, USA), Santanu Ganguly (Northrup Grumman, UK)
11:15 - 11:30	**A brief overview of programmed instructions for quantum software:** Richard Wolf (University of Galway, Ireland), Sho Araiba (University of Hawaii, USA)
11:30 - 13:00	**LUNCH**
QSEEC09	**Quantum Workforce Development** **Session Chair: Brian La Cour (The University of Texas at Austin, USA)**
14:00 - 14:15	**Invited Talk: Designing and implementing a new Quantum Science and Engineering graduate degree program at the University of Delaware:** Matthew Doty (University of Delaware, USA)
13:30 - 13:45	**Building capacity for regional quantum ecosystems:** A look at Cleveland, Ohio: Gabbie Meis (Coding School: Qubit by Qubit, USA)
14:00 - 14:15	**Voluntary mentoring initiative aimed at enhancing quantum computing abilities:** Michał Stęchły (PsiQuantum, Canada), Alberto Maldonado-Romo (Instituto Politécnico Nacional, Mexico)
14:00 - 14:15	**Concepts for upskilling the industry workforce in QT hardware:** Oliver Bodensiek (Physikalisch-Technische Bundesanstalt, Germany), Dion Timmermann (Physikalisch-Technische Bundesanstalt, Germany), Alexandros Metavitsiadis (Physikalisch-Technische Bundesanstalt, Germany), Larissa Braun (Physikalisch-Technische Bundesanstalt, Germany), Daniel Stuhlmacher (Physikalisch-Technische Bundesanstalt, Germany)
14:30 - 15:00	**BREAK**
QSEEC10	**Quantum Education Tools** **Session Chair: Marek Osinski (University of New Mexico, USA)**
15:00 - 15:15	**QWalkVis: Quantum Walks Visualization Application:** Addie Jordon (University of Victoria, Canada), Austin Hawkins-Seagram (University of Victoria, Canada), Samantha Norrie (University of Victoria, Canada), José Ossorio (University of Victoria, Canada), Ulrike Stege (University of Victoria, Canada)
15:15 - 15:30	**Harnessing the VQE to simulate quantum chemistry in an undergraduate project: Properties of hydrogen, oxygen and water molecules:** Shah Ishmam Mohtashim (University of Dhaka, Bangladesh), Sheikh Mahatabuddin (Bangladesh Atomic Energy Regulatory Authority, Bangladesh), Md. Abdul Jabbar (University of Dhaka, Bangladesh)
15:30 - 16:00	**QPCC: a quantum programming course for inhomogeneous cohorts of professional learners:** Emil Dimitrov (ICHEC, Ireland), Conor Dunne (Irish Centre for High-End Computing (ICHEC), Ireland), Venkatesh Kannan (ICHEC, Ireland), Karthik Krishnakumar (ICHEC, Ireland), Pablo Lauret Martínez de Rituerto (ICHEC, Ireland), Pablo Suárez Vieites (ICHEC, Ireland), Rajarshi Tiwari (ICHEC, Ireland), Richard Wolf (ICHEC, Ireland)
16:00 - 16:15	**Exploring architecture of Qiskit Runtime for educational enablement:** Syed Farhan Ahmad (NC State University, USA), Nate Earnest-Noble (IBM, USA), Gregory Byrd (NC State University, USA), Hamed Mohammadbagherpoor (IBM, USA)
16:15 - 16:30	**Utilizing automated quantum software management tools and a write-once-target-all quantum device python package to greatly reduce friction in education and coding environment setup:** Ricky Young (Qbraid, USA), Ryan Hill (Qbraid, USA), Alberto Maldonado (Instituto Politécnico Nacional, Mexico)