17th Conference on the Theory of Quantum Computation, Communication and Cryptography

TQC 2022, July 11–15, 2022, Urbana Champaign, Illinois, USA

Edited by

François Le Gall

Tomoyuki Morimae

Editors

François Le Gall
Graduate School of Mathematics, Nagoya University, Nagoya, Japan
legall@math.nagoya-u.ac.jp

Tomoyuki Morimae
Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan
tomoyuki.morimae@yukawa.kyoto-u.ac.jp

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Preface

The 17th Conference on the Theory of Quantum Computation, Communication and Cryptography was hosted by the University of Illinois at Urbana-Champaign, and held from July 11 to July 15, 2022.

Quantum computation, quantum communication, and quantum cryptography are subfields of quantum information processing, an interdisciplinary field of information science and quantum mechanics. The TQC conference series focuses on theoretical aspects of these subfields. The objective of the conference is to bring together researchers so that they can interact with each other and share problems and recent discoveries.

A list of the previous editions of TQC follows:

- TQC 2021, University of Latvia, Latvia (virtual conference)
- TQC 2020, University of Latvia, Latvia (virtual conference)
- TQC 2019, University of Maryland, USA
- TQC 2018, University of Technology Sydney, Australia
- TQC 2017, Université Pierre et Marie Curie, France
- TQC 2016, Freie Universität Berlin, Germany
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- TQC 2014, National University of Singapore, Singapore
- TQC 2013, University of Guelph, Canada
- TQC 2012, University of Tokyo, Japan
- TQC 2011, Universidad Complutense de Madrid, Spain
- TQC 2010, University of Leeds, UK
- TQC 2009, Institute for Quantum Computing, University of Waterloo, Canada
- TQC 2008, University of Tokyo, Japan
- TQC 2007, Nara Institute of Science and Technology, Nara, Japan
- TQC 2006, NTT R&D Center, Atsugi, Kanagawa, Japan

We wish to thank the members of the Program Committee and all subreviewers for their precious help. Our warm thanks also go to the members of the Local Organizing Committee, for their considerable efforts in organizing the conference. We would like to thank the members of the Steering Committee for giving us the opportunity to work for TQC. And, of course, all contributors and participants!

April 2022
François Le Gall and Tomoyuki Morimae

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List of Authors

Srinivasan Arunachalam (3)
IBM Quantum, Thomas J Watson Research Center, Yorktown Heights, NY, USA

Jinge Bao (2)
Centre for Quantum Technologies, National University of Singapore, Singapore

Joao Basso (7)
Google Quantum AI, Venice, CA, USA

Sergey Bravyi (3)
IBM Quantum, Thomas J Watson Research Center, Yorktown Heights, NY, USA

Jop Briët (6)
CWI & QuSoft, Amsterdam, The Netherlands

Harry Buhrman (10)
QuSoft, CWI Amsterdam, The Netherlands; University of Amsterdam, The Netherlands

Sangheon Choi (9)
Department of Computer Science, Rose-Hulman Institute of Technology, Terre Haute, IN, USA

Matthew Coudron (9)
Department of Computer Science, University of Maryland, College Park, MD, USA

Suchetan Dontha (9)
Department of Computer Science, University of Maryland, College Park, MD, USA

João F. Doriguello (2)
Centre for Quantum Technologies, National University of Singapore, Singapore

Francisco Escudero Gutiérrez (6)
CWI & QuSoft, Amsterdam, The Netherlands

Edward Farhi (7)
Google Quantum AI, Venice, CA, USA; Center for Theoretical Physics, Massachusetts Institute of Technology, Cambridge, MA, USA

Steven T. Flammia (4)
AWS Center for Quantum Computing, Pasadena, CA, USA; California Institute of Technology, Pasadena, CA, USA

Andrew N. Glaudell (12)
Booz Allen Hamilton, Atlanta, GA, USA; Department of Mathematics, George Mason University, Fairfax, VA, USA

Aleks Kissinger (5)
University of Oxford, UK

Vladislavs Kļevickis (11)
Centre for Quantum Computer Science, Faculty of Computing, University of Latvia, Riga, Latvia

Bruno Loff (10)
University of Porto, Portugal; INESC-Tec, Porto, Portugal

Alessandro Luongo (2)
Centre for Quantum Technologies, National University of Singapore, Singapore

Kunal Marwaha (7)
Department of Computer Science, University of Chicago, IL, USA

Ashley Montanaro (1)
School of Mathematics, University of Bristol, UK; Phasecraft Ltd., Bristol, UK

Chinmay Nirkhe (3)
IBM Quantum, Thomas J Watson Research Center, Yorktown Heights, NY, USA; Electrical Engineering and Computer Sciences, University of California, Berkeley, CA, USA; Challenge Institute for Quantum Computation, University of California, Berkeley, CA, USA

Bryan O'Gorman (3)
IBM Quantum, Thomas J Watson Research Center, Yorktown Heights, NY, USA

Sarah A. Osborn (8)
Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

Subhasree Patro (10)
QuSoft, CWI Amsterdam, The Netherlands; University of Amsterdam, The Netherlands

Krišjānis Prūsis (11)
Centre for Quantum Computer Science, Faculty of Computing, University of Latvia, Riga, Latvia

Patrick Rebentrost (2)
Centre for Quantum Technologies, National University of Singapore, Singapore

Neil J. Ross (12)
Department of Mathematics and Statistics, Dalhousie University, Halifax, Canada

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Miklos Santha (2)
Centre for Quantum Technologies, National University of Singapore, Singapore

Changpeng Shao (1)
School of Mathematics, University of Bristol, UK

Jamie Sikora (8)
Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

Stephen Smith (9)
Department of Mathematics, University of South Carolina, Columbia, SC, USA

Florian Speelman (10)
QuSoft, CWI Amsterdam, The Netherlands; University of Amsterdam, The Netherlands

Shi Jie Samuel Tan (9)
Department of Computer Science, Haverford College, PA, USA

John van de Wetering (5, 12)
Radboud University Nijmegen, The Netherlands; University of Oxford, United Kingdom

Jevgēnijs Vihrovs (11)
Centre for Quantum Computer Science, Faculty of Computing, University of Latvia, Riga, Latvia

Benjamin Villalonga (7)
Google Quantum AI, Venice, CA

Renaud Vilmart (5)
Université Paris-Saclay, CNRS, ENS Paris-Saclay, Inria, Laboratoire Méthodes Formelles, 91190, Gif-sur-Yvette, France

Lia Yeh (12)
Department of Computer Science, University of Oxford, UK

Leo Zhou (7)
Walter Burke Institute for Theoretical Physics, California Institute of Technology, Pasadena, CA, USA