18th Conference on the Theory of Quantum Computation, Communication and Cryptography

TQC 2023, July 24–28, 2023, Aveiro, Portugal

Edited by

Omar Fawzi

Michael Walter

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Contents

Papers

18th Conference on the Theory of Quantum Computation, Communication and Cryptography (TQC 2023).
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Leibniz International Proceedings in Informatics
LIPICS Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany

Preface

The Theory of Quantum Computation, Communication and Cryptography (TQC) conference is a leading annual international conference for students and researchers working in the theoretical aspects of quantum information science. The scientific objective of TQC is to bring together the theoretical quantum information science community to present and discuss the latest advances in the field. The 18th edition of TQC will be hosted by the University of Aveiro in Portugal and held from July 24 to July 28, 2023. A list of the previous editions of TQC follows:

- TQC 2022, University of Illinois at Urbana-Champaign, USA
- 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
- TQC 2015, Université libre de Bruxelles, Brussels, Belgium
- 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 work towards composing the program of the conference. We would also like to thank the Local Organizing Committee for all their efforts in organizing the conference, as well as the Steering Committee for maintaining the conference's high standards. Last but not least, we thank the authors of all the TQC 2023 submissions.

May 2023
Omar Fawzi and Michael Walter

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