

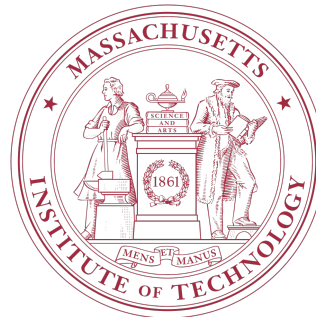


xPRO

Massachusetts Institute of Technology

This is to certify that

Thomas J Ballatore



has successfully completed

Requirements for Large-Scale Universal Quantum Computation

Awarded 2.5 Continuing Education Units (CEUs)

September 10 - October 10, 2018

William D. Oliver

Professor of the Practice of Physics
Assoc. Director of the Research
Laboratory of Electronics
Fellow at MIT Lincoln Laboratory
Massachusetts Institute of Technology

Isaac Chuang

Professor of Physics
Professor of Electrical Engineering
and Computer Science
Sr. Associate Dean of Digital Learning
Massachusetts Institute of Technology

Peter W. Shor

Morss Professor of Applied
Mathematics
Massachusetts Institute of Technology

Aram W. Harrow

Associate Professor of Physics
Massachusetts Institute of Technology