

# Quantum computing on the cloud

## Early Adopters Meeting, QEAM21

**Bar-Ilan University, September 13, 2021**

Quantum computing is an emerging technology, with the potential to outperform classical computing (at least for some specific computationally hard problems). To reach this goal, scientists estimate that one needs millions of qubits operating at 99.9% fidelity ( $10^{-3}$  error per gate). The best quantum computer currently available are limited to tens of qubits with  $10^{-2}$  errors. What can we do with these quantum computers? Recent works by early adopters show that current quantum computers on the cloud can be used to solve simple quantum molecules, realize foundational demonstrations with shallow algorithms, study the dynamics of quantum systems, and more. QEAM21 will review the current usage of quantum computers for industrial and academic purposes, in Israel.

Registration fee: 200 NIS

**Registration deadline: August 13, 2021**

<http://tiny.cc/QEAM21>

**Contributed talks:** Daniel Azses (Tel Aviv University), Ofer Casper (Technion), Frima Kalyuzhner (Bar-Ilan University), Haggai Landa (IBM Research, Haifa), Rami Pugatch (Ben Gurion University), Mor Roses (Bar-Ilan University), Eran Sela (Tel Aviv University), Meron Sheffer (Bar-Ilan University), Raam Uzdin (Hebrew University).

**Invited virtual talks:** Joonho Lee (Columbia University & Google AI Quantum),  
Itay Hen (University of Southern California)

**Organizers:** Emanuele Dalla Torre (Bar-Ilan University)  
Adi Makmal (Bar-Ilan University)  
Raam Uzdin (Hebrew University)

