



## IEEE/ACM Design Automation for Quantum (DAQ)

This event is organized as part of IEEE/ACM Design Automation Conference ([www.dac.com](http://www.dac.com))

Date: Sunday July 19th 2020

Location: Virtual (link will be provided several days after registration via an email and calendar invite by the organizer. Incomplete or suspicious form responses may not receive the invitation.)

Cost: Free

Schedule (all times are US Pacific time):

9:00-9:15AM Rasit Topaloglu, IBM, "Opening remarks"

9:15AM-10:00AM John Martinis, University of California Santa Barbara, Keynote Talk, "Quantum supremacy in a programmable superconducting processor"

10:00AM-10:30AM Tsung-Yi Ho, National Tsing Hua University, "Placement algorithm for superconducting energy-efficient magnetic FPGA"

10:30AM-11:00AM Robert Wille, Johannes Kepler University, "EDA tools for simulation, compilation, and verification of quantum circuits"

11:00AM-11:15AM Break

11:15AM-11:45AM Massoud Pedram, University of Southern California, "ColdFlux: A CAD flow and open-source tool suite for superconducting single flux quantum logic circuits."

11:45AM-12:15PM Jared Hertzberg, IBM, "Qubit frequency crowding in scalable quantum computing circuits"

12:15AM-12:45PM Swaroop Ghosh, Penn State University, "Methodologies to generate true random numbers from NISQ-era quantum computers"

12:45PM-1:00PM Break

1:00PM-1:30PM Igor Markov, University of Michigan Ann Arbor / Facebook, "Beyond NISQ and quantum supremacy: faster simulation of fault-tolerant quantum circuits"

1:30PM-2:00PM Lukasz Cincio, Los Alamos National Labs, "Automating the discovery of noise-resilient quantum algorithms"

2:00PM-2:30PM Panel - Did EDA help quantum supremacy experiments? (Panelists: Igor Markov / Facebook and Robert Will / Johannes Kepler University)

This workshop is chaired by Rasit Topaloglu, Ph.D. ([rasit@us.ibm.com](mailto:rasit@us.ibm.com)).

Abstract: We have come a long way in building quantum computers. Today top companies host quantum computers with more than 50 qubits and the path is set to sail forward.

But wait a moment, where is EDA in all of this? EDA, the indisputably fundamental component of designing modern semiconductor chips. Is EDA being utilized to design the next quantum computer? Or if not when is this call coming?

This workshop targets to cover the basics and scale from there. It aims to entertain both the novice and the expert. It explores recently solved and open problems. It even discusses the supremacy topic from afar. One thing is for sure: this workshop is exciting!

**\* Erforderlich**

E-Mail-Adresse \*

Ihre E-Mail-Adresse

Your first and last name \*

Meine Antwort

Your affiliation \*

Meine Antwort

Your IEEE Number

Meine Antwort

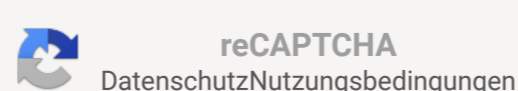
Any prior questions you would like to ask panelists on the panel topic?

Meine Antwort

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