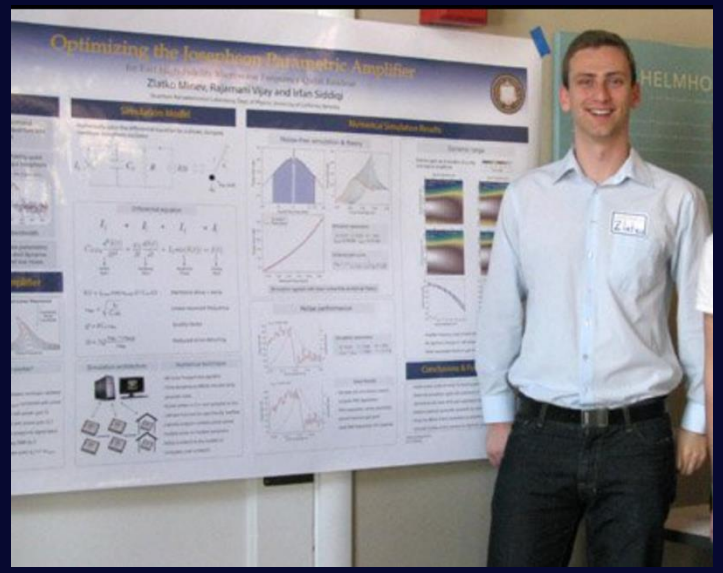
Zlatko K. Minev, Ph.D.

From time $t \approx 0$ -> Now

B.A. Physics - 4 years



Ph.D. Applied Physics - Yale - 7 years

IBM Quantum - 7 years

Google Quantum AI

UC Berkeley, CA

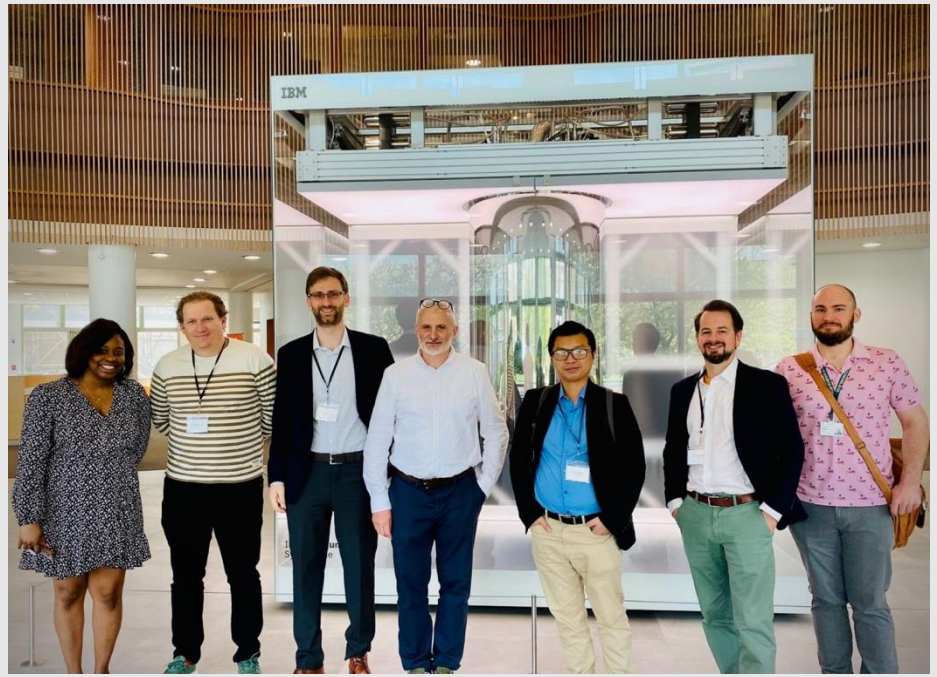
Yale University, CT

Some roles since then

IBM Quantum

- **Technical Lead and Manager**
  for 2 teams and missions I founded:
  - **Qiskit Leap Research**
    advanced collaborative quantum computing research
  - **Qiskit Metal**
    quantum processor design and analysis

Qiskit | quantum device design



ADDITIONAL ROLES

CIFAR 40 YEARS · ANS

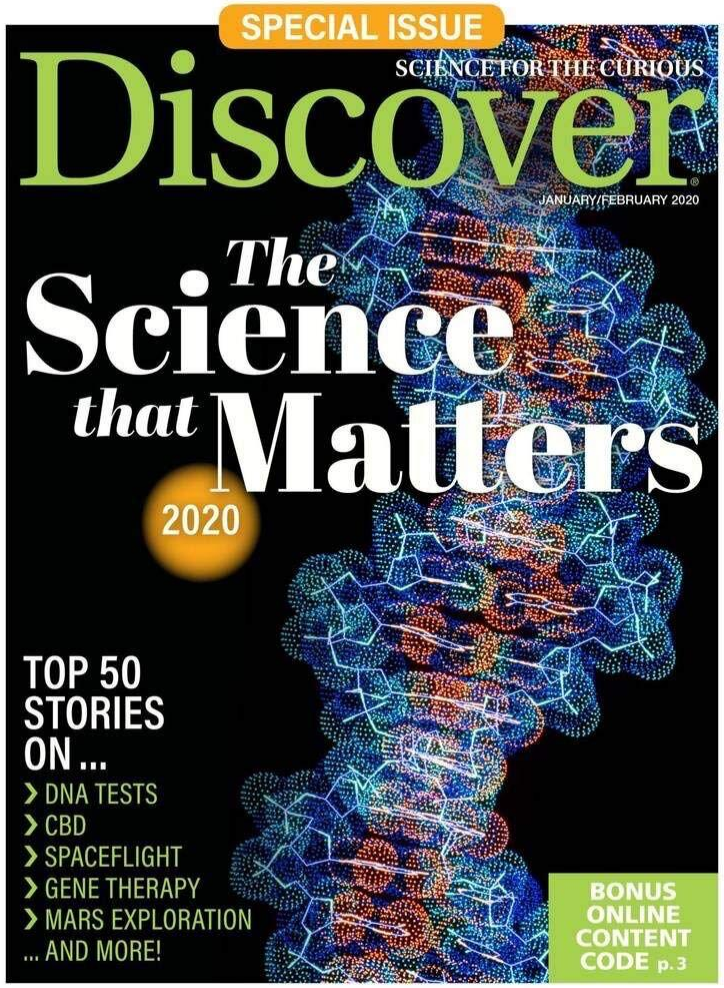
MDCCCXLVII

LUX ET VERITAS

- **Associate Fellow**,
  Canadian Institute for Advanced Research **(CIFAR)**
- **Member of the Board**,
  Yale University, Graduate School Alumni Association
- **Board of Governors**,
  Yale Alumni Association
- **Lead and Host**,
  IBM Quantum, YouTube Seminar
- **Chairman**,
  Open Labs Science Outreach

Quantum Information Science Seminar Series

Some highlights



MIT Technology Review

INNOVATORS UNDER 35

Zlatko Minev

AGE: 30
AFFILIATION: IBM QUANTUM RESEARCH, TJ WATSON
COUNTRY OF BIRTH: BULGARIA

His discovery could reduce errors in quantum computing.

In chaotic times it can be reassuring to see so many people working toward a better world. That's true for medical professionals fighting a pandemic and for ordinary citizens fighting for social justice. And it's true for those among us striving to employ technology to address those problems and many others.

Zlatko Minev overturned a mainstay of quantum physics that had troubled Niels Bohr and Albert Einstein alike. For most of the 20th century, it was assumed that atoms change from one energy level to another in abrupt, unpredictable, discrete quantum jumps. Minev proved otherwise.

Forbes

You Don't Have To Be A Rocket (Or Quantum) Scientist To Design A Quantum Computer Chip Using IBM's New Tool Called Qiskit Metal

Paul Smith-Goodson Contributor
Moor Insights and Strategy Contributor Group
Cloud

nature
International journal of science

Letter | Published: 03 June 2019

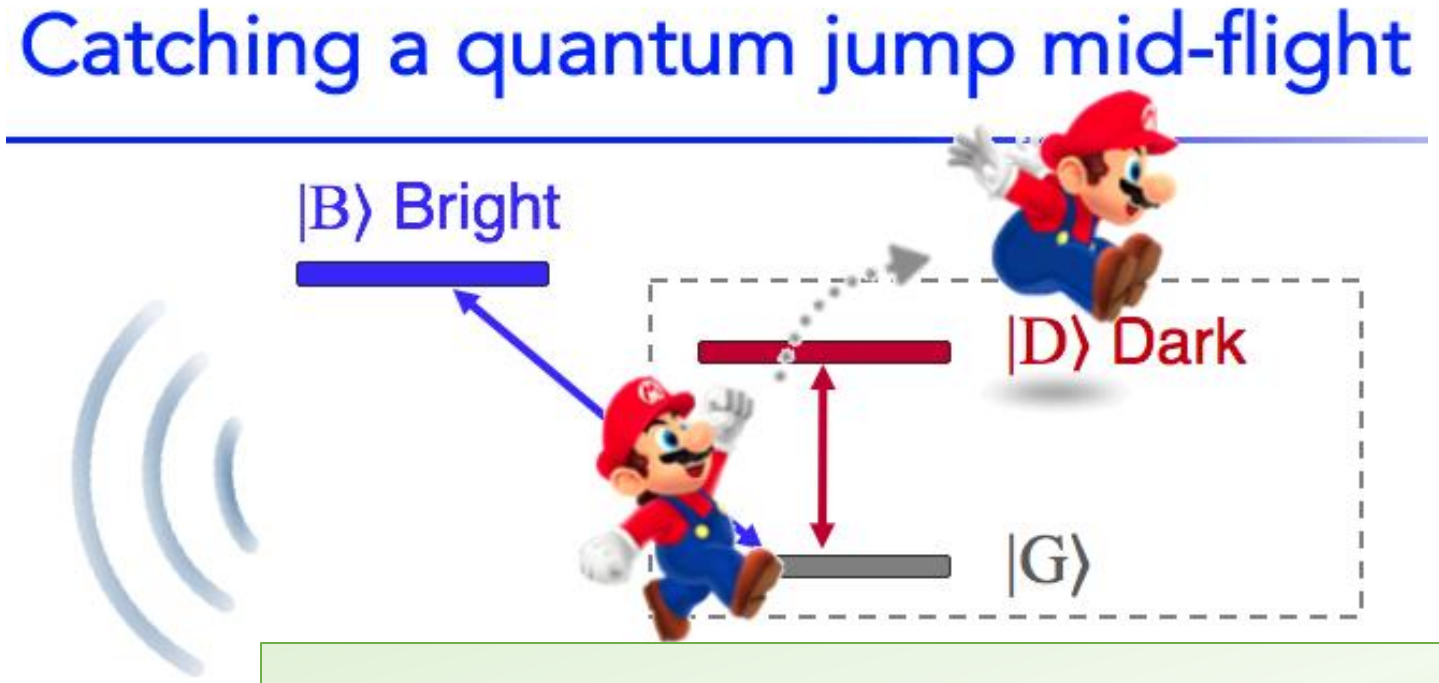
To catch and reverse a quantum jump mid-flight

Yale-Jefferson Award for Public Service

Lessons

Believe in your ideas

Hear criticism,
then make a quantum leap



Have fun & misbehave a bit

(John Cohn)

H.J. Carmichael

If I knew what I was doing, it wouldn't be called research.

Albert Einstein

See Hawken *et al.* (2010)

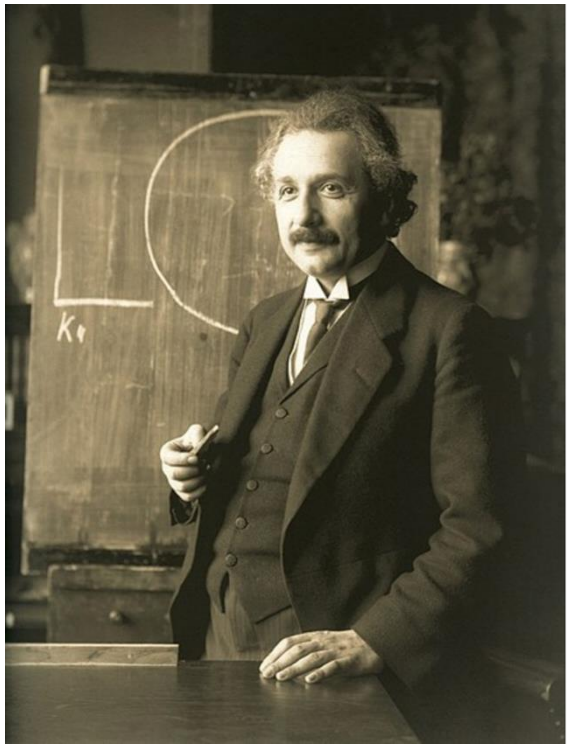
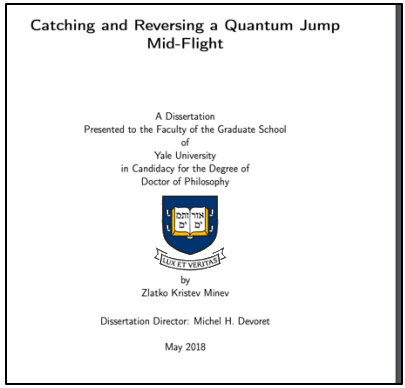


Photo: F. Schmutzer

nature
International journal of science


Catching and Reversing a Quantum Jump Mid-Flight

A Dissertation
Presented to the Faculty of the Graduate School
of
Yale University
in Candidacy for the Degree of
Doctor of Philosophy

by
Zlatko Kristev Minev

Dissertation Director: Michel H. Devoret

May 2018

Letter | Published: 03 June 2019

To catch and reverse a quantum jump mid-flight

Z. K. Minev ✉, S. O. Mundhada, S. Shankar, P. Reinhold, R. Gutiérrez-Jáuregui, R. J. Schoelkopf, M. Mirrahimi, H. J. Carmichael & M. H. Devoret ✉

Nature **570**, 200–204 (2019) | Download Citation ↓

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Zlatko Minev, IBM Quantum

“It is by *logic* that we prove,
but by *intuition* that we discover.”

Henri Poincaré

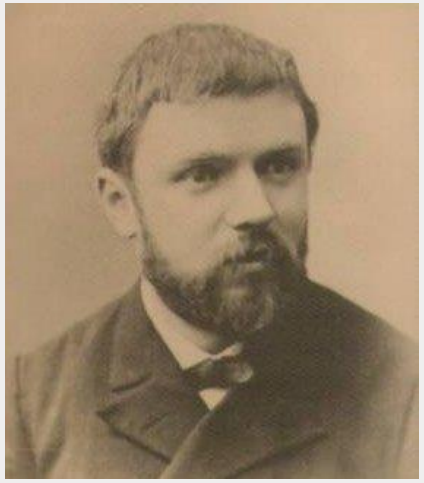
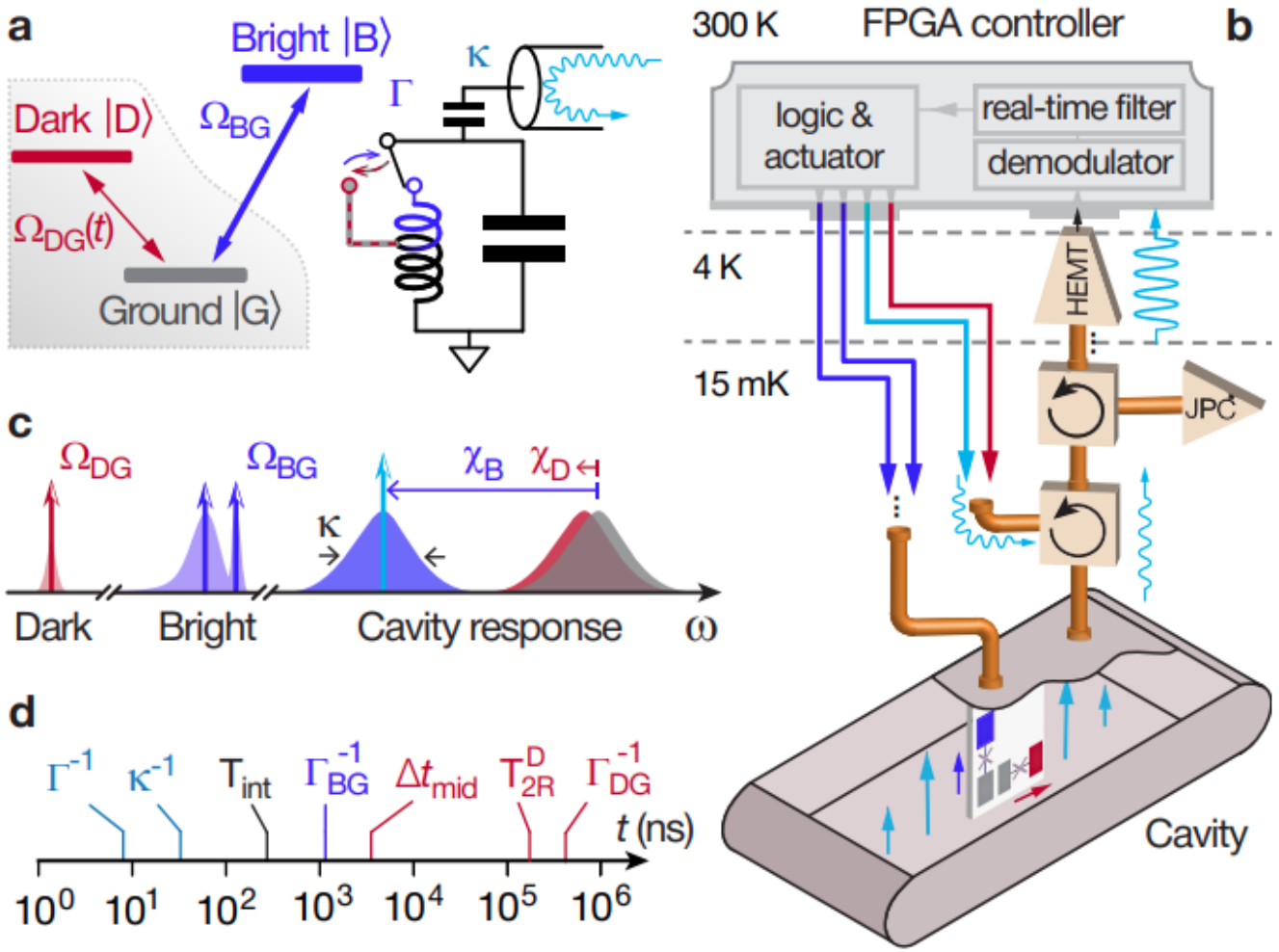


Photo by Eugène Pirou

We're in the business of challenging

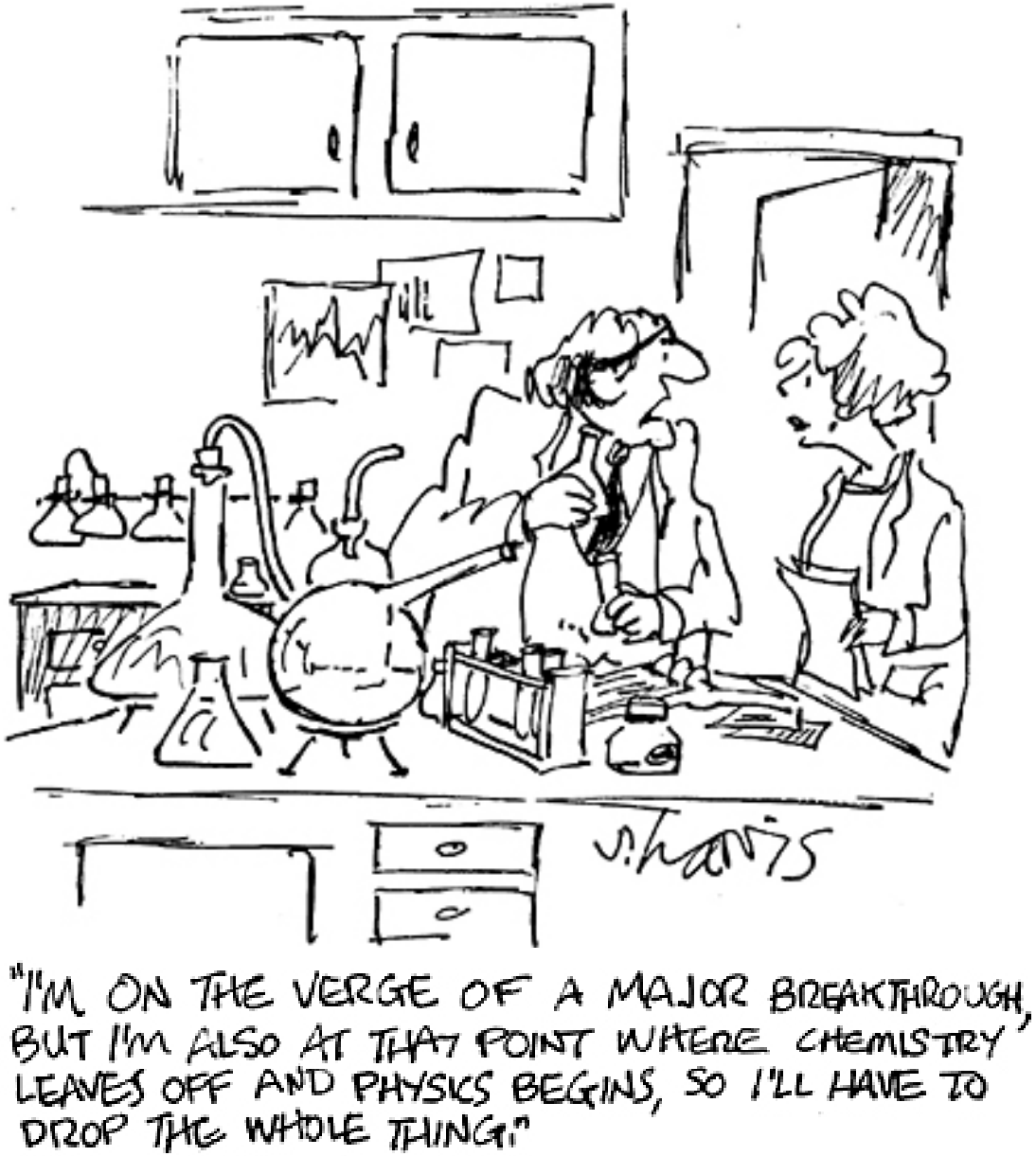
There are no unsolvable problems, only paths which do not lead to their solution



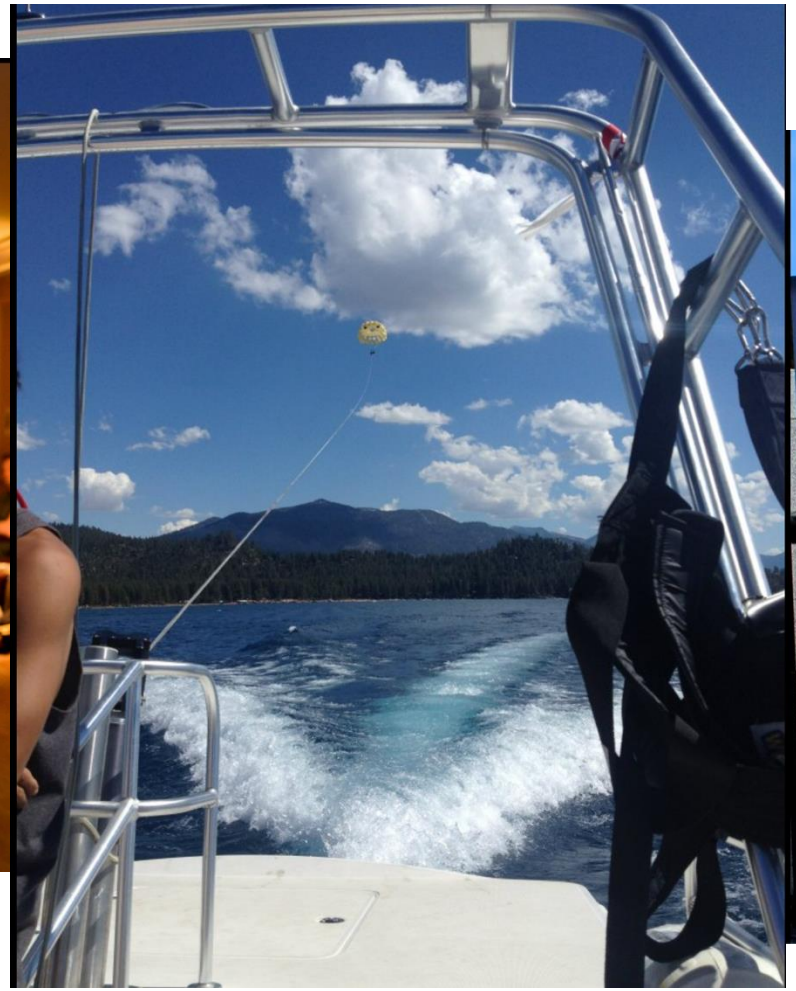
Learn beyond apparent boundaries

"We are not students of some subject matter, but students of problems. And problems may cut right across the borders of any subject matter or discipline."

Karl Popper



"Having fun can smooth the ride" (John Cohn, IBM Fellow)



Lessons from the quantum jumps story

Question-driven research

You can only have great answers
if you start with great questions

Believe in your ideas

Hear criticism,
then make a quantum leap

We're in the business of challenging

There are no unsolvable problems, only paths which do not lead to their solution

Learn, learn, learn

Learn widely; learn always; do not limit self;
Can’t just keep doing what you’ve been doing

Periods of intense single-minded focus

Alternate with learning widely

Have fun & misbehave a bit

The science of success & the art of fulfillment

Teach to learn

Find the way,

Go the way,

Show the way

i.e., give back

The important thing is not to stop questioning. Curiosity has its own reason for existence.

One cannot help but be in awe when he contemplates the mysteries of eternity, of life, of the marvelous structure of reality.

It is enough if one tries merely to comprehend a little of this mystery each day.

Albert Einstein

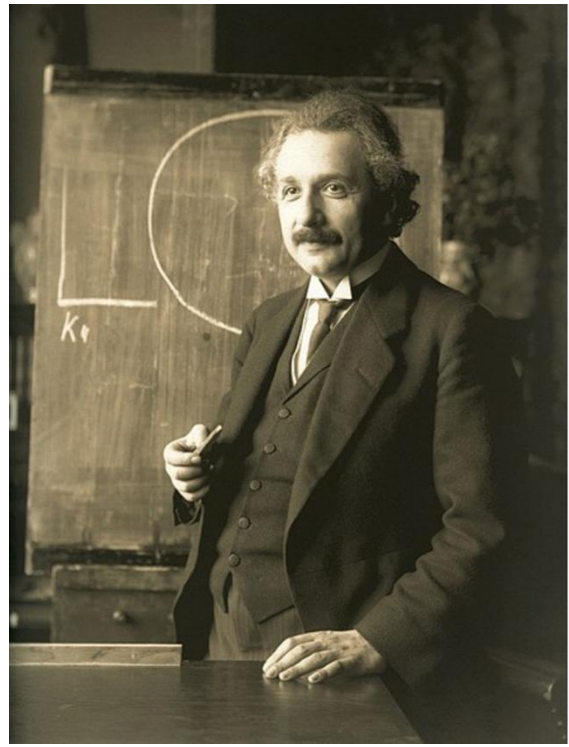


Photo: F. Schmutzer