Fermilab | U.S. DEPARTMENT OF ENERGY | Office of Science

A Career in Accelerator Science and Engineering

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LAWISE Workshop

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Fermilab | THE UNIVERSITY OF CHICAGO 1890 | Argonne NATIONAL LABORATORY

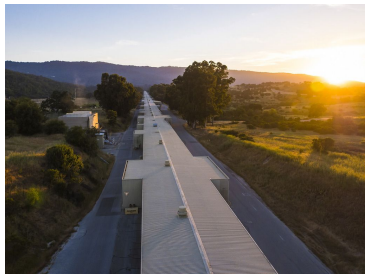
Brief CV

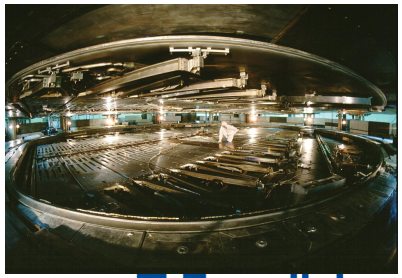
Education

1989 Ph.D. Physics, The University of Michigan
Ph.D. thesis in Accelerator Physics at Fermilab
1987 M.S. Mathematics, The University of Michigan
1986 M.S. Physics, The University of Michigan
1983 B.S. Physics, University of Athens, Greece

Employment

2018 PIP-II Project Director, Fermilab
2015 – 2018 Associate Lab Director, Accelerators, SLAC
2008 – 2015 Head, Accelerator Division, TRIUMF & UBC
2002 – 2008 Director, CASA, JLab
1992 – 2002 Scientist, JLab
1989 – 1992 Postdoc, SLAC





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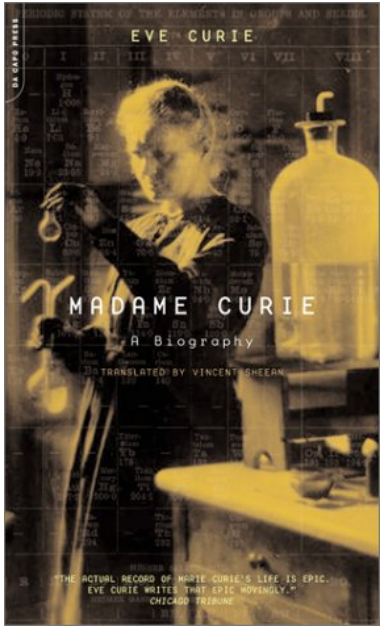
Proton Improvement Plan – II (PIP-II)

Some early influences....

I was lucky to have superb and lasting influences through family and teachers who definitively influenced my decision to go into Physics

George C. Dousmanis
Ph.D. Columbia University 1956



13 years old

Αλκμηνη Γιουργα:
High school Physics teacher: A woman who gave excellence to her teaching and demanded excellence from us

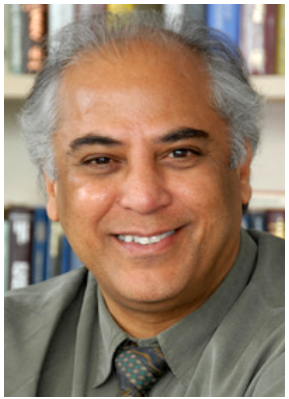
16 years old

Mentors

In the work environment, it takes enlightened colleagues who feel secure about themselves to mentor young women and influence their careers positively.

Work with the best in the field!

Steve Peggs
BNL

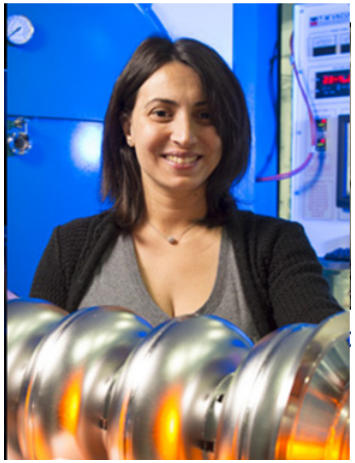


Swapan Chattopadhyay
NIU & Fermilab

Nigel Lockyer
Fermilab

Giving back

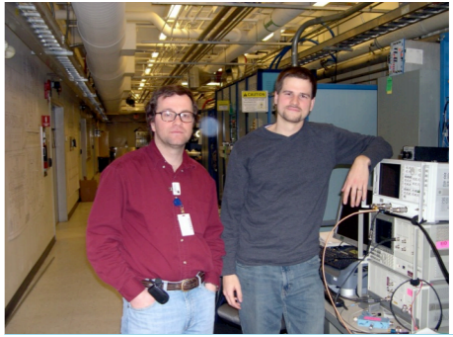
Alysson Gold
Stanford University



Anna Grassellino
Fermilab

Marco Marchetto
TRIUMF

Ramona Leewe
TRIUMF



Eduard Pozdeyev &
Chris Tennant
Fermilab & JLab

Doug Storey
SLAC

Career and family

- Pursuing a scientific career and raising a family is not easy.

- I found it the hardest to balance my family and my work, especially when my child was younger. At the end of a long day I often felt I am not doing a good job in either.

“…and she wasn’t!”

Alfred Chao

UChicago, Division of Social Sciences

Leadership

- In my mind, leadership is based on a set of immutable principles about which I feel quite strongly:
  - **Integrity**/honesty
  - Having a **vision** and being able to **articulate it clearly** to employees at all levels so they feel motivated to support it.
  - **Respect** for others
  - **Technical proficiency**
  - **Decision making**
  - Ownership; Taking **responsibility** for one's decisions and actions
  - Willingness to **accept risk** once the level of risk is defined
  - **Determination**, tenacity/persistence

We must identify opportunities for women to advance in the ranks, so there are more women in leadership positions

Some advice I never forgot

- Many years ago, I heard **Florence P. Haseltine, Ph.D., M.D**. give a talk. She was at a very high level at the US National Institutes of Health at the time. She said she had two pieces of advice to young women in scientific and engineering fields:

- **“Stay focused”**
- **“Don’t take no for an answer”**

- I took her advice to heart. This may not have to do with my being a woman, but if you come up with a new idea, somehow the tendency is that people want to turn it down (especially in science!). Don’t stop. Just keep pushing. Not all ideas are good, but don’t stop at the first no.

To be determined and to persevere are very important.

Inspiration

- The endeavor
  - Make a difference, contribute to something of lasting value, enable new scientific & technological breakthroughs
- The team
- The fact that we all stand upon the shoulders of giants

Helen Edwards
Master Builder of Accelerators: 1936-2016

Closing Remarks

- There are a lot of opportunities in science and engineering, and this field is more merit-based than most other fields.
- I feel it is very important to be technically competent, really competent.
  - **Technical competence levels the playing field**
- Decide what it is you want to work on, and pursue it with focus and determination.
- The road will be arduous but amply rewarding!

And have fun! Let's not forget:

We got into Science for the love of it!