73rd Gaseous Electronics Conference
XF5 Session on Women in Plasma Science

Svetlana Radovanov

October 9th 2020

Inclusivity at GEC (iGEC) Women in Plasma Science

73rd Gaseous Electronics Conference

5-9 October 2020

Chair: Svetlana Radovanov

Guest speakers: Amy Wendt and Saskia Mordijck

We have created network sites to increase the number of GEC scientists and institutions that support the inclusivity of minorities in the plasma science and engineering community.

- GEC sponsored site https://www.linkedin.com/groups/8920655/
- The GEC site is linked to the Women in Plasma Physics group that is a part of the American Physical Society (APS), and organize events at the annual APS Division of Plasma Physics (DPP) https://apsdppwomen.wordpress.com/links/
- If you want to stay up-to-date on what is going on in the world of plasma physics and gender minorities in plasma physics, you should connect to our Facebook group, which is open to anyone. Women in plasma physics Facebook group
- Discussion at this session will cover different topics such as additional interacting, the position of gender minorities in the scientific community, support for minority groups in our society, improve the climate for women and underrepresented minorities in physics, from undergraduates to graduate programs.
- Chair's email: svetlana_radovanov@amat.com

Guest speakers

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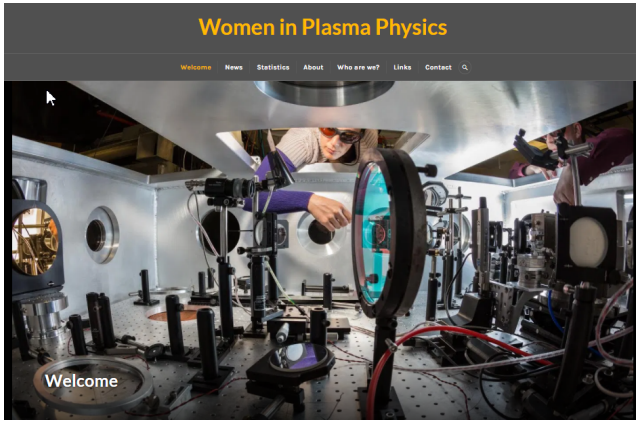
- Saskia Mordijck, Assistant Professor at College of William and Mary
- She received her PhD. in Engineering Physics from UC San Diego in 2011. Her research spans both experimental as well as theoretical turbulent magnetically confined plasma physics.
- Professor Mordijck dedicates herself to community service, from serving and leading various APS-DPP committees, to being an instrumental part of the US efforts in developing a strategic plan.



Guest speakers- continue

- Amy Wendt, Professor, Electrical and Computer Engineering, Co-Director, Women in Science and Engineering Leadership Institute, Interim Associate Vice Chancellor for Research – Physical Sciences.
- Professor Wendt got her PhD. Electrical Engineering and Computer Science, University of California, Berkeley, December 1988,MS EECS, University of California, Berkeley, December 1985 and BS Engineering and Applied Science, California Institute of Technology, June 1982.
- Gaseous Electronics Conference (GEC) - Executive Committee member 2008-2015, and 2017-18 (Chair 2012-2014),Organized several inaugural GEC inclusivity events held jointly with the APS Division of Plasma Physics for the co-located GEC and DPP meetings in Portland, OR in 2018.
- Professor Amy Wendt's fundamental research in low-temperature plasmas serves the goal of optimization and control of plasma-driven materials process applications. Her research combines plasma-assisted materials processing outcomes with plasma characterization and modeling, diagnostics development, and the development of new methods of generating and controlling plasmas. She has applied this approach to some plasma etching and deposition applications. Her contributions include fundamental insights into the dynamics of planar magnetron sputtering and RF inductively-coupled discharges, and she introduced the method of waveform-tailoring of substrate bias during plasma etching as a means of controlling ion bombardment energy, for which she was awarded two U.S. patents. Her current research focus is on the development of non-invasive diagnostics of plasma properties using optical emission spectroscopy.

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Proposed topics

- Networking:
  - Connect to European APS Women in Plasma Science and mentoring system discussed by professor Eva Kovacevic, at the University of Orleans.
- Identify network sites that sponsor awards and prizes in plasma physics.
- Discuss position of the gender minorities in the scientific community
  - Enforce introduction of a code of conduct at universities and engineering institutions
- Initiate transparency in hiring and promotions
- Take responsibility and make a change
  - Send letters of support for minority groups in our society, Black Lives Matter & others.
- Accept a change of our group's name and mission to Inclusivity at GEC (iGEC) to include all gender minorities.

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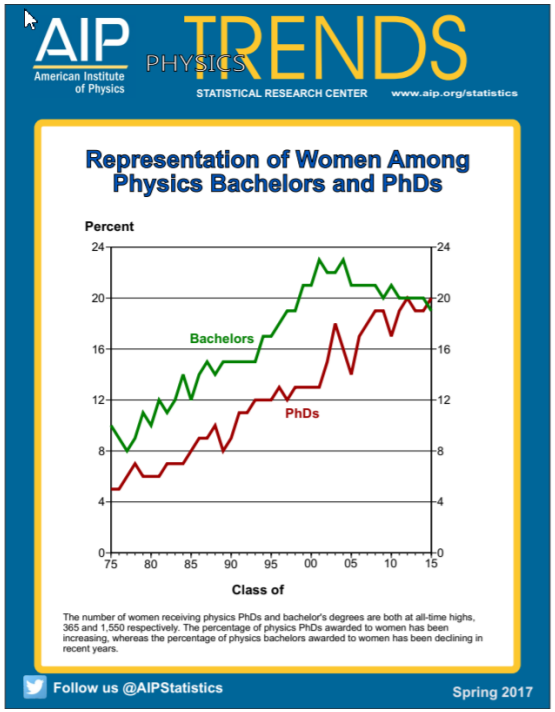
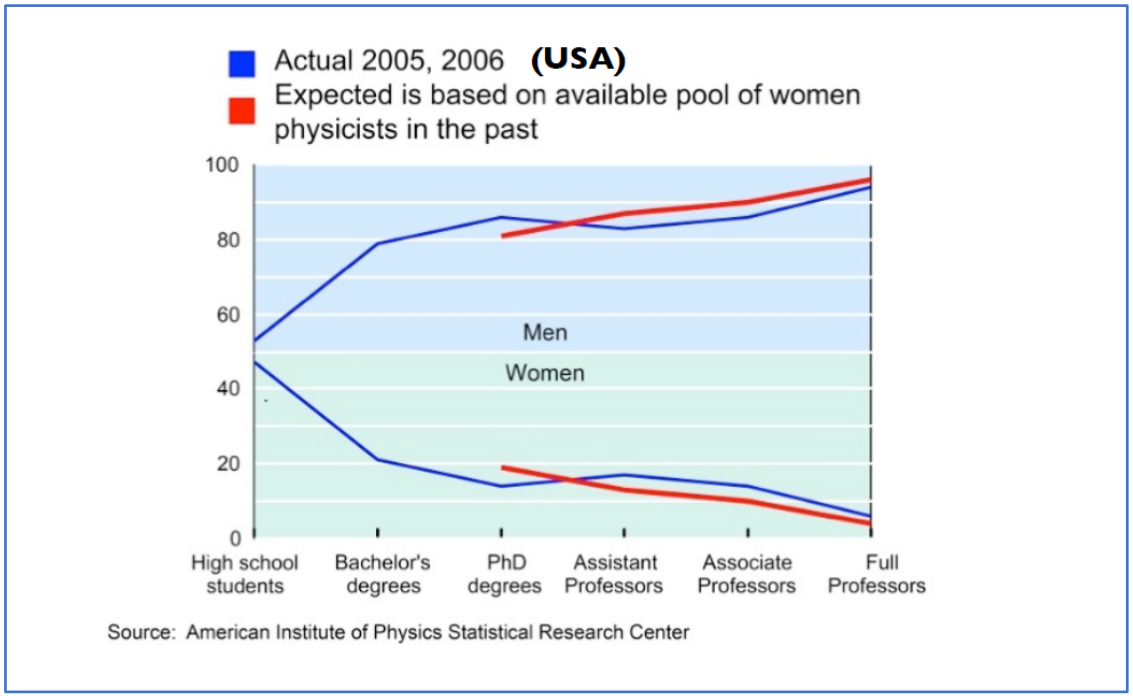
Additional topics Discussed

- Identify educational and research programs that provide opportunities to diverse plasma community.
- Have representation in NSF/DOE plasma programs and future trends
  - initiate involvement of prominent women in plasma physics in funding opportunities at NSF/DOE.
- Who has access to career-advancing experiences?
- Initiate programs that are aimed at helping people return to the workforce after an extended period of time - proposal by Sarah N. Guckner
  - For example this program exists at CERN (see https://jobs.smartrecruiters.com/CERN/743999712251561-post-career-break-fellowship-programme),
  - Support blind and other disabled plasma physicists.

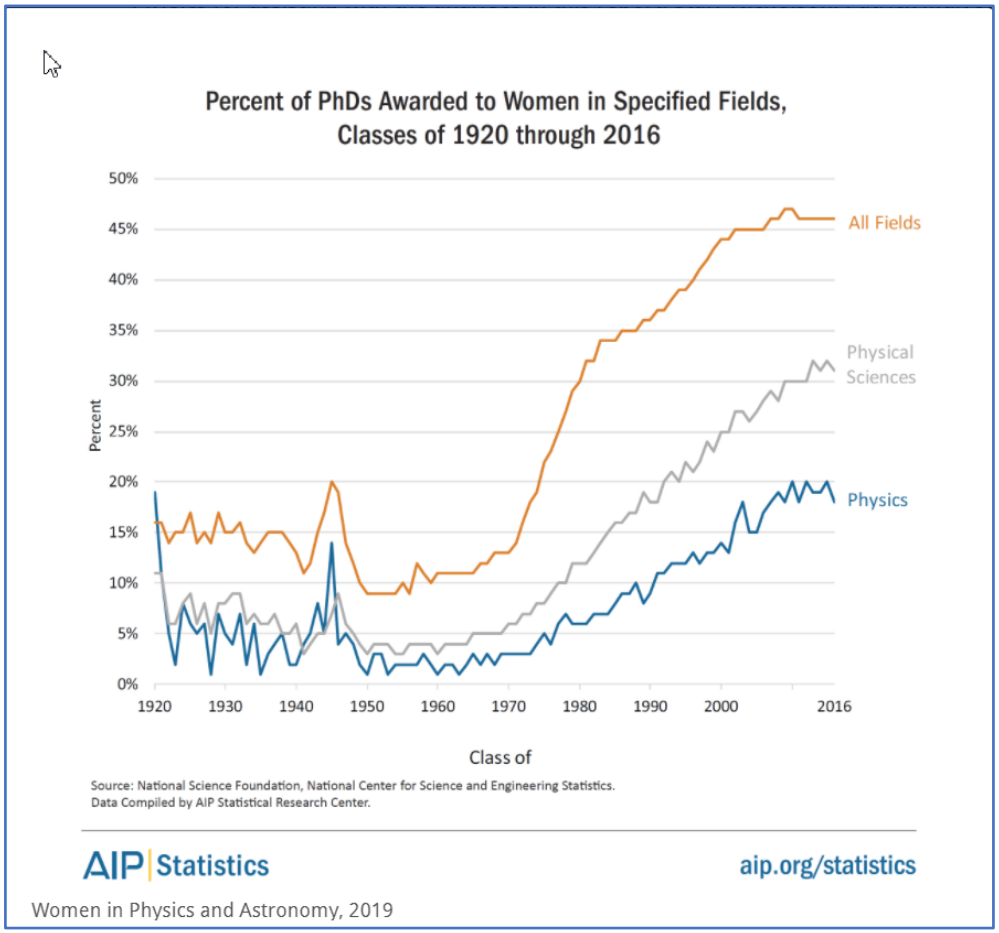
Additional topics Discussed- continue

- Professional Skills Development Seminars provide women with training in effective negotiation and communication skills.
- Improve the climate for women and underrepresented minorities in physics, from undergraduates to faculty. Data: The “scissors plot” summarizing the gender participation in physical sciences shows a relative scarcity of women physicists.





CHALLENGES IN REPRESENTATION IN THE US



Women in Physics and Astronomy, 2019