



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Time to try harder

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Columnist Ursula Keller says ETH Zurich has the opportunity to benefit from the increasing number of highly successful female professors.



Improving opportunities for female students and faculty can only happen with widespread support, respect and understanding. (Photo: iStockphoto.com - urbancow)

When I began my career 30 years ago, I was convinced that all I had to do in order to become a successful scientist was to be very good at my job and to excel in my scientific expertise. I believed that discrimination against women in science was very much a thing of the past. I was positive about pursuing my career and having a family if I chose to do so.

When I finished with my studies in physics here at ETH in 1984, my diploma document read “ETH erteilt ... Frau Ursula Keller das Diplom als Physiker”. At that time I was able to choose between “Frau” (Ms) or “Fräulein” (Miss) and between “Physiker” (masculine form of physicist) and “Physikerin” (feminine form of physicist).

My choice points to the fact that, 30 years ago, I simply wanted to be part of the physics community and did not want to emphasize my identity as a woman. I was convinced that was irrelevant. After all, I'd just finished my oral final diploma exams with top grades. I did not pay much attention to the fact that I was the only female out of more than 80 students.

Now, as a tenured female professor with a spouse and children, I look back on my career and find that the issue of women in science is much more complicated than I had initially thought. Don't get me wrong: I have an exciting, exhilarating and fulfilling job. Yet, I find myself hesitating to characterize my experience as wholly positive.

While I've engaged in many wonderful research collaborations with my colleagues, I have also experienced a number of incidents that have led me to conclude that there are systematic problems in the professional world of science. Women are faced with behavior and attitudes that discourage them from taking on leadership positions and sometimes even from remaining in academic science.

After a great start in 1993, our physics department has actually made negative progress in the percentage of tenured female professors. A simple linear extrapolation suggests that the physics department may eventually have no female faculty. Despite the excellent performance of our women professors, we have failed, over the last 20 years, to encourage our best female students to excel in their careers.

ETH Zurich currently has the opportunity to benefit from the increasing number of highly successful female professors; this was a principal motivation for the establishment of the ETH Women Professors Forum (WPF). As a co-founder and the first elected president of the ETH WPF, I would like to use the next few columns to present some ideas that I feel could be easily implemented. Of course, improvements can only happen with widespread support, a support that must be based on respect and understanding.

Fortunately, there are some excellent resources that provide insight into the current situation and its implications for female students and faculty. For example, the book "[Lean-in](#)" by Sheryl Sandberg, the COO (chief operating officer) of Facebook, which illustrates the challenges that even the most successful women face. It is a "must read" for both men and women. My husband's feedback after he read it was "she sounds like you!"

Another excellent resource is "[Best practices for female faculty](#)" compiled by the American Physical Society (APS). This document outlines 13 strategies to improve the working environment for both male and female faculty. Last but not least, [Equal!](#) at ETH Zurich. The website provides vital statistics on gender monitoring and much more useful information. I found the handouts from the 20-year anniversary "[Check your Stereotypes](#)" exhibition great – my favorite is "Theme 3: Stereotypes and career".

My colleagues and I in the ETH WPF are proud to be part of the ETH community. ETH Zurich has a long tradition of providing an outstanding environment for research and education, for fostering excellence and serving society. Although this tradition has not served women and men equally in the past, it's time to try harder.

We are committed to working with our faculty colleagues and the academic leadership to make ETH a place where women feel encouraged and welcome and where women as well as men can excel beyond their own expectations.



Author

Ursula Keller was born 1959 in Zug. She has been a physics professor at ETH since 1993, and director of the NCCR MUST since 2010. She obtained her Masters at ETH Zurich in 1984, and her Ph.D. at Stanford University in 1989, and before returning to ETH she worked as an independent researcher at AT&T Bell Laboratories. Her current research group explores ultrafast science and laser technology, using this competitive know-how to understand and control fundamental charge and energy transport with atomic spatial and attosecond temporal resolution. Ursula has received several international prizes, as well as a European Research Council (ERC) AdvanceGrant. She currently serves as the president of the ETH Women Professors ([ETH WPF](#)).