Ursula Keller has been a tenured professor of physics at ETH Zurich since 1993 (www.ulp.ethz.ch) and also a director of the Swiss multi-institute NCCR MUST program in ultrafast science from 2010-2022 <u>SNSF Link</u>. She received the Ph.D. from Stanford University in 1989 and the Physics "Diplom" from ETH in 1984. She was a Member of Technical Staff (MTS) at AT&T Bell Laboratories from 1989 to 1993, a "Visiting Miller Professor" at UC Berkeley 2006 and a visiting professor at the Lund Institute of Technologies 2001. She has been a co-founder and board member for Time-Bandwidth Products (acquired by JDSU in 2014) and for a venture capital funded telecom company GigaTera (acquired by Time-Bandwidth in 2003). She is a co-founder of K2 Photonics (2023) to commercialize dual-comb lasers. She was a member of the research council of the Swiss National Science Foundation from 2014-2018. She is the founding president of the ETH Women Professors Forum (WPF).

The focus of her group (foto) in research is exploring and pushing the frontiers in ultrafast science and technology (online info). She invented the semiconductor saturable absorber mirror (SESAM) which enabled passive modelocking of diode-pumped solid-state lasers and established ultrafast solid-state lasers for science and industrial applications. She pushed the frontier of few-cycle pulse generation in the near infrared, full electric field control at close to petahertz frequencies and petahertz electronics with attosecond transient absorption spectroscopy. Pioneered frequency comb stabilization from modelocked lasers, which was also noted by the Nobel committee for Physics in 2005 Link. She enabled passively modelocked optically pumped semiconductor disk lasers (i.e. VECSELs and MIXSELs) with her SESAM technology. The SESAM technology also allowed the invention of two new methods for multiplexing a single cavity to support a pair of pulse trains with different pulse repetition rates ideally suited for dual-comb applications. In time-resolved attosecond metrology highlight achievements are the invention of the attoclock which measured the electron tunneling delay time, observed the dynamical Franz-Keldysh effect in condensed matter, and measured attosecond photoemission time delays from atoms and molecules using coincidence detection and angular resolution for the first time.

Awards include the Swiss Science Prize Marcel Benoist (2022), OSA Frederic Ives Medal/Jarus W. Quinn Prize (2020) – OSA's highest award for overall distinction in optics, SPIE Gold Medal (2020) – SPIE's highest honor, IEEE Edison Medal (2019), European Inventor Award for lifetime achievement (2018), IEEE Photonics Award (2018), two ERC advanced grants (2012 and 2018), OSA Charles H. Townes Award (2015), LIA Arthur L. Schawlow Award (2013), EPS Senior Prize (2011), OSA Fraunhofer/Burley Prize (2008), Leibinger Innovation Prize (2004), and Zeiss Research Award (1998). OSA, SPIE, IEEE, EPS and IAPLE Fellow, member of the U.S. National Academy of Sciences, Royal Swedish Academy of Sciences, German Academy Leopoldina and Swiss Academy of Technical Sciences. She supervised and graduated 94 Ph.D. students (<u>list</u>), published >510 journal publications (list) and has more than 32,000 citations and h-index of 92 (Web of Science Core Collection, Feb. 2024) and according to Google Scholar an h-index of 122 with more than 55,000 citations (Feb. 2024). In 2022, she authored a new graduate textbook on "Ultrafast Lasers" published by Springer Verlag.