

Ursula Keller, a tenured physics professor at ETH Zurich since 1993, directed the NCCR MUST ultrafast science program from 2010 to 2022. She earned her Diplom from ETH Zurich in 1984 and a Ph.D. from Stanford University in 1989. As a Member of Technical Staff (MTS) at Bell Labs from 1989 to 1993, she launched her independent research career. Keller co-founded Time-Bandwidth Products (was acquired by JDSU in 2014), and K2 Photonics in 2023. Since 2022, she has served on the supervisory board of Jenoptik.

Her research focuses on advancing ultrafast science and technology with advancements in ultrafast solid-state and semiconductor lasers, utilizing semiconductor saturable absorber mirrors (SESAMs) and achieving ultrashort pulse generation in the one to two optical-cycle regime with frequency comb generation and stabilization. She established ultrafast solid-state lasers for science and industrial applications. 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. She used her ultrafast laser knowhow to conduct attosecond experiments testing fundamental processes in quantum mechanics, pioneered the attoclock technique, full electric field control for petahertz electronics with attosecond transient absorption spectroscopy, and measured attosecond photoemission time delays using coincidence detection and angular resolution for the first time.

Her awards include the Swiss Science Prize Marcel Benoist (2022), OSA Frederic Ives Medal (2020), SPIE Gold Medal (2020), IEEE Edison Medal (2019), OSA Charles H. Townes Award (2015), EPS Senior Prize (2011), and two ERC advanced grants (2012 and 2018). Keller has supervised 96 Ph.D. students, authored 520 journal articles, and holds an h-index of 121 with over 55,000 citations according to Google Scholar. In 2022, she authored a new graduate textbook on "Ultrafast Lasers" published by Springer Verlag.