



Federico Capasso is the Robert Wallace Professor of Applied Physics at Harvard University, which he joined in 2003 after 27 years at Bell Labs where his career advanced from postdoctoral fellow to Vice President for Physical Research. He has made wide ranging contributions to optics, photonics and nanotechnology, including pioneering the bandgap engineering technique, the invention of the quantum cascade laser, and seminal research on metasurfaces and their applications, including the generalized Snell's law and high performance metalenses. His

awards include the Balzan Prize, the IEEE Edison Medal, the American Physical Society Arthur Schawlow Prize in Laser Science, the King Faisal Prize, the SPIE Gold Medal, the AAAS Rumford Prize, the IEEE Sarnoff Award, the Materials Research Society Medal, the Franklin Institute Wetherill Medal, the European Physical Society Quantum Electronics Prize, the Rank Prize in Optoelectronics, the Optical Society Wood Prize, the Berthold Leibinger Future Prize, the Julius Springer Prize in Applied Physics, the Institute of Physics Duddell Medal, the Jan Czocharlski Award for lifetime achievements in Materials Science, and the Gold Medal of the President of Italy for meritorious achievement in science. He is a member of the National Academy of Sciences, the National Academy of Engineering, a fellow of the American Academy of Arts and Sciences (AAAS) and a foreign member of the Accademia dei Lincei.