

Curriculum Vitae

Franz Josef Giessibl was born on May 27, 1962 in Amerang in Upper Bavaria, the son of an entrepreneur and a painter. After his school education he served the mandatory military training in Traunstein and studied precision engineering at the University of Applied Sciences in Munich until his intermediate diploma. From there he transferred to the Technical University of Munich to study physics. During his advanced studies, he spent a year studying mathematics and physics at the Swiss Federal Institute of Technology in Zurich. Throughout his school and university education, he worked in laser optical laboratories during school vacations, such as the IBM Research Laboratory in Rüschlikon, Switzerland.

He completed his diploma thesis in 1988 with Professor Gerhard Abstreiter in experimental semiconductor physics, using molecular beam epitaxy to create artificial superlattice crystals of silicon and germanium and characterizing them with Raman spectroscopy.

He earned his PhD on low-temperature atomic force microscopy with Physics Nobel Laureate Professor Gerd Binnig at the IBM Physics Group Munich /Ludwig-Maximilians University of Munich in 1991, succeeding for the first time in demonstrating true atomic resolution with the atomic force microscope.

After receiving his PhD, he joined Park Scientific Instruments in Sunnyvale, California, a spin-off of Stanford University, in 1992 to develop an atomic force microscope for operation in ultra-high vacuum, which won the prestigious R&D 100 award from Chicago-based R&D magazine in 1994. In the same year, he achieved a pioneering milestone: the first atomic imaging of the 7×7 reconstruction of the silicon surface. This result opened up a new field of research that has inspired hundreds of research groups, who have continued to meet annually since 1998 for the International Conference of Noncontact Atomic Force Microscopy.

From 1995 he was a management consultant in the Munich office of McKinsey&Company, where he was mainly involved in benchmarking studies of DAX companies. In parallel, he set up a laboratory in his apartment and invented a novel sensor for the atomic force microscope, the patented qPlus[®] sensor.

In 1997 he moved back to science to the chair of Professor Jochen Mannhart at the University of Augsburg. There he demonstrated the potential of the qPlus sensor by resolving single electron clouds in an atom for the first time with his team. After his habilitation, he received offers to chairs at the Universities of Bristol and Regensburg.

Since 2006, professor Giessibl holds the Chair of Experimental and Applied Physics at the University of Regensburg. He spent numerous research stays abroad, for example at the IBM Almaden Research Laboratory in California and at the National Institute for Standards and Technology, Gaithersburg and the University of Maryland, College Park in the USA.

His research results have led to numerous speaking invitations to Europe, USA, Canada, Brazil, South Africa, Turkey, Israel, United Arab Emirates, India, Bangladesh, Singapore, South Korea, China and Japan.

As a speaker, he was trained by Anthony Robbins, Tobias Beck, Hermann Scherer, Werner Erhard & Associates, Tom Crum and the Tegernsee Academy for Language and Communication.

He has authored more than 100 scientific articles, 10 of which have appeared in the world-renowned journal *Science* alone. Some of those works were discussed in daily newspapers such as the *Frankfurter Allgemeine Zeitung*, the *Neue Züricher Zeitung*, the *Spiegel* and the *New York Times*. He has co-edited two books on force microscopy, and written numerous book chapters. He also penned a book about his many encounters with Gerhard Richter that appeared at the 90th birthday of this eminent painter in 2022.

He gave numerous courses and lectures at international summer schools, e.g. at the Ecole de Physique des Houches in France and many other places. His graduates hold important positions in the high tech industry or at universities.

From 1998 to 2021, he was a board member at Nanosurf AG in Liestal, Switzerland, a manufacturer of atomic force microscopes. Since 1998, he has licensed his invention, the qPlus sensor, to all manufacturers of cryogenic force microscopes. More than 400 of these commercial instruments are installed worldwide, in addition to a large number of home-built instruments based on his sensor.

He has received numerous awards for his work, including the German Nanoscience Prize, the Rudolf Kaiser Prize, the Karl Heinz Beckurts Prize, and internationally the Joseph F. Keithley Award for Advances in Measurement Science from the American Physical Society and the Feynman Prize for Nanotechnology from the Foresight Institute in Palo Alto, USA.

In his spare time, he enjoys skiing with his two sons and wife, swimming, jogging, cycling, reading extensively, visiting concerts, repairing watches, travelling the world or exploring the Bavarian Forest on his Harley Davidson Vrod. The holder of a private pilot certificate completed many international marathons until he turned 50 with a personal best of 3h 5min 39s in Munich 1992.