

Hans U. Fuchs

Short CV

Hans Fuchs studied theoretical physics at the Swiss Federal Institute of Technology (ETH) in Zurich and obtained an MS in theoretical geophysics. He then went on to get an MS in computational astrophysics from Rensselaer Polytechnic Institute in Troy, NY.

Subsequently, he joined industry (Royal Dutch Shell in the Netherlands and Sulzer Bros. in Switzerland) to work in the fields of data analysis and computational engineering.

Since then, he has been working at Zurich University of Applied Sciences at Winterthur (ZHAW) and its former institutions for over thirty years. During this time, he has taught physics, dynamical systems modeling, and cognitive linguistics related to science at the School of Engineering and the Department of Applied Linguistics of ZHAW. He has developed new approaches to learning science and computer modeling, created a solar energy laboratory in the early 1990s, and has been active in thermodynamics and energy related research and development. He is the author of *The Dynamics of Heat* (2nd ed., Springer Graduate Texts in Physics, Springer, New York, 2010; first edition: 1996), *Modeling of Uniform Dynamical Systems* (Orell Füssli, Zürich, 2002), and co-author of *Physik, ein systemdynamischer Zugang* (h.e.p. Bern, 2000-2010).

Of late, he has been involved in creating a new curriculum for primary school in Italy in collaboration with the University of Modena and Reggio Emilia and the Free University of Bolzano at Bressanone. He has been active in developing a theory of narrative of science that is applied in education and in science communication. He is co-founder of the Center of Metaphor and Narrative in Science at the University of Modena and Reggio Emilia. As of 2017, he has been retired professor of physics at ZHAW, and *Cultore della Materia* at the Department of Education and Humanities, University of Modena and Reggio Emilia. In 2019, he started teaching the physics course as part of teacher education at the Free University of Bolzano at Bressanone, Italy.