

Felix Otto is Professor at the Applied Mathematics Department of the University of Bonn since 1999. He received his PhD from Bonn in 1993 working with Stephan Luckhaus. He was postdoc at the Courant Institute, at the Carnegie Mellon University, and became faculty at the University of California in Santa Barbara in 1997. He received the Leibniz Prize of the German Science Foundation in 2006.

Professor Otto's work is mostly motivated by experimental phenomena in specific areas of physics, like micromagnetics, phase transitions, and rheology. These phenomena include domain and wall pattern in micromagnetics, the coarsening of the phase distribution in demixing processes, or the spreading of thin viscous films. His goal is to explain these phenomena, starting from models in continuum physics with the ambition to advance mathematical analysis to the point where these phenomena become accessible. He has advocated gradient flow structures as a way to think in terms of energy landscapes. His tools include a priori estimates for partial differential equations, Ansatz-free lower bounds and asymptotic analyses in the calculus of variations, and numerical simulation.