Bachelor's Degree in Physics, specialising in Elementary Particle Physics, at the University of Rome "La Sapienza"; Ph.D. in Physics at the University of Florence.

He is aggregate professor at the Engineering Faculty of the University of Bergamo where, in the past decades, he has been teacher of Fisica Generale I and II and Laboratorio di Fisica I and II and director of all e-learning general physics courses. For five years he has been also teacher of Storia delle Idee Fisiche and Fondamenti e Didattica della Fisica at Scuola di Specializzazione per l'Insegnamento Secondario of the Bergamo University.

He is a member (since 2009) of the Bergamo University Academic Senate, of the Istituto Nazionale di Fisica Nucleare-Sezione di Milano, of the American Mathematical Society, and of the Società Italiana di Storia della Fisica.

From 2011 to 2013 he has been in charge of the Milano-Bergamo local unity for INFN I.S. NA41 experiment.

He is a member of the editorial board of the Universal Journal of Physics and Application.

He is a reviewer for leading international scientific journals as, e.g.: Journal of Physics A - Mathematical ad General, Foundation of Physics, Foundation of Physics Letters, International Journal of Theoretical Physics, Modern Physics Letters A and B, Physics Letters, Physica A and C, Superconductor Science and Technology.

He has published many theoretical research papers in quantum mechanics, history of physics, elementary particle physics, molecular physics, condensed matter physics (classical and quantum spin; Clifford algebras applied to wave mechanics; tunneling times and electromagnetic evanescent waves; quantum chaos; high energy special relativity violations; mean field theories for two-phase superconductors; unpublished Ettore Majorana works), also in collaboration with other universities, industries, research centers.

Some scientific results obtained in the above researches: prediction of the Hartman-effect suppression in the dissipative tunneling; quantum potential spinorial theory; spin corrections on Dirac particles cyclotron frequency; explanation of the matter-antimatter asymmetry based on Lorentz violations occurred at very high primordial energies; discovery of a new molecular physics phenomenon (namely, the "pipe-effect" in viscous fluids).

For his theoretical studies on multiphase superconductors and on Higgs field reparametrization he awarded the Majorana Medal 2008.

He has been interested also in cataloguing historical scientific instruments, in science

dissemination and popularization, and in docimology and educational-teaching techniques, giving seminars and organizing workshops devoted to the application of scientific methodologies in the learning evaluation. Starting from 2014, he has conceived and directed “Campus di Ingegneria: Macchine & Storia”, a wide program for the realization of exhibits, machines and installations, aimed to the diffusion of the scientific and technological knowledge and to the recovery of the local industrial architecture.