Short CURRICULUM VITAE

(January 2025)

Alessandra Feo is a RTT in the scientific sector (04/GEOS-03), working at the Department of Chemistry, Life Sciences, and Environmental Sustainability at Parma University. Her major research interest is focused on: 1) mathematical and numerical modeling of fluid dynamics to implement new modeling approaches for groundwater flow and contaminant transport simulations and their parallel implementation in high-performance computing (HPC) systems. She is interested in groundwater modeling; groundwater contamination; multiphase immiscible fluid flow; computational fluid dynamics; mathematical modeling; numerical simulations; migration of immiscible contaminants in variably saturated zones; high-resolution shock-capturing methods. 2) Numerical simulations of gravitational wave emission from binary neutron star mergers. 3) Lattice QCD and lattice supersymmetry. Graduated in Physics from the Central University of Venezuela (Caracas) and an equivalent degree in Physics at Pisa University (1993), Ph.D. in Theoretical Physics at Pisa University (1993). She held several research appointments: Fellowship at the Scuola Normale Superiore, Pisa (March 1995-April 1996), Research Assistant at the Department of Natural Sciences at Cyprus University (June 1996-January 1997), Research Assistant (BAT IIa) at the Institute for Theoretical Physics at Muenster University, Germany (November 1998-October 2001), Research Fellow at the School of Mathematics at Trinity College Dublin, Ireland (November 2001-October 2003), KITP affiliate of the Lattice program 2005 at the University of California at Santa Barbara, Kavli Institute for Theoretical Physics, USA (10 January-5 February, 2005), Scientific Associate at the CERN theoretical Division, Geneve (15 March-15 May, 2005), and Parma University since 2003, first as a Research Associate, then as RTDa (3+2). Her scientific production contains more than 90 papers with more than 2100 citations and Hirsh number h=27 (Google Scholar). National Scientific Qualification to Associate Professor from 29/09/2023 to 29/09/2035 for the scientific sector 04/A3, National Scientific Qualification to Associate Professor from 08/01/2014 to 08/01/2026, and from 14/04/2021 to 14/04/2036, for the scientific sector 02/A2. Reviewer for different journals: Physical Review D, Physical Review Letters, Classical Quantum Gravity, Universe-MDPI (Topic Editor Member since 2020), Water-MDPI (Editorial Board Member since 2021, Reviewer Board Member since 2019, Guest Editor Member of the Special Issue "Groundwater Modelling in Karst Areas"), Computation-MDPI (Topic Advisory Panel since 2023, Guest Editor Member of the Special Issue Recent Advances and Future Developments in the Modeling of Groundwater Flow and Contaminant Transport), Scientific Reports, PLOS One, Journal of Hydrology, Journal of Hydrogeology, Journal of Environmental Pollution, Journal of Hazardous Materials, Journal of Contaminant Hydrology, Discover Applied Sciences, Energies-MDPI, Geosciences-MDPI, Applied Sciences-MDPI, Fluids-MDPI, Hydrology-MDPI, Sustainability-MDPI, Engineering-MDPI, Geographies-MDPI, Materials-MDPI, Processes-MDPI, Toxics-MDPI, Symmetry-MDPI, Resources-MDPI, etc. She has a long experience in teaching graduate and post-graduate courses. She is a co-tutor of undergraduate and post-graduate theses. She participates in several research projects funded by national and international organizations. Invited speaker for more than 60 seminars, including plenary speaker. Academic Appointments: member of the Departmental Quality Assurance Committee, member of the Earth Sciences Doctorate Teaching Committee (40th, 41th Cycle), etc.