

CURRICULUM

FERRARESE Silvia

Education

1994 Master degree in Physics at the Turin University

1998 Ph.D. in Geophysics at the University of Genoa, Modena, and Turin, Italy

1999-2006 Post-doctoral and contract researcher positions at: Consiglio Nazionale delle Ricerche
Institute of Cosmogeophysics, Department of General Physics University of Torino

Employment

2006-2007 Teacher in secondary school

2007-2022 Researcher at the Physics Department, University of Torino

Since 2022 Associate Professor the Physics Department, University of Torino

2021 National scientific qualification as associate professor in Geophysics

2022 National scientific qualification as associate professor in Astronomy, Astrophysics, Earth
and Planetary Physics

Main Research Topics

- Study of greenhouse effect: analysis of the historical series of atmospheric carbon dioxide concentrations measured at the Alpine station of Plateau Rosa (3480 m a.s.l.), temporal variations in concentrations, research of sources and sinks, and study of extreme events.
- Study of the atmospheric boundary layer: analysis of experimental campaigns also carried out in complex and mountainous terrain, analysis of turbulent flows and systematic errors in sonic anemometry.
- Meteorological and dispersion models to study particular events. Simulations using the WRF (Weather and Research Forecasting model) for meteorological analyses on complex terrain and the estimation of cloud cover and cloud top height. Dispersion models applied in backward mode.
- Study of the microclimate for cultural heritage: analysis of the microclimate in museum environment and in ancient churches. Comparison of different environmental conditions using microclimatic indexes.