The University of Ferrara is one of the oldest in Italy. It was founded in 1391. Very famous people studied in Ferrara, for example, Nicholas Copernicus received here his graduation in Law (Canonical Right). Currently it includes many Faculties: Law, Humanities, Economics, Medicine and Surgery, Pharmacy, Architecture, Engineering, Mathematical Physical and Natural Sciences. Many courses are offered by the last Faculty, among which those for a first level graduation in Physics and Astrophysics and a higher level graduation in Physics, with several curricula, inclusive of Astrophysics and Space Physics.

At the highest level, the University of Ferrara has set up the Institute for Higher Studies, IUSS - Ferrara 1391, that offers Doctorate programs to national and international students through a proper selection. One of them is the Doctoral Program in Physics, with several curricula, among which Astrophysics. The main reference structure for all PhD students in Physics is the Physics Department, that performs research activity in different fields, from nuclear and subnuclear physics to solid state physics and its applications (e.g., nanotechnologies, photovoltaic cells and solar applications, crystallography), physics of atmosphere, astroparticle physics and high energy astrophysics. PhD students of the astrophysics curriculum join the High Energy Astrophysics Group (HEAG), led by Prof. Filippo Frontera.

This group, since many years, is involved, through national and international collaborations, in experimental, observational, and recently, theoretical X-/gamma-ray astrophysics. Among the major programmes recently managed by HEAG, it merits to mention the PI-ship of the high energy instrument PDS and the Gamma Ray Burst Monitor (GRBM) aboard the BeppoSAX satellite, through which a thirty year mystery, that of the Gamma Ray Burst (GRB) sites, was discovered though the discovery of the GRB afterglow. For this discovery, the Bruno Rossi Prize 1998 of the American Astronomical Society and the Descartes Prize 2002 of the European Committee, have been obtained. The current research activity in high energy astrophysics, with national and international collaborations, mainly concerns studies of GRBs, compact objects in binary systems, and the development of Laue lens telescopes for soft gamma-ray astronomy.

For the experimental developments, of key importance is the Large Italian hard X-ray facility (LARIX), developed by HEAG, that includes a 100 m tunnel. It is used either for detector test and calibration and for hard X-/gamma-ray focusing telescope development and test. As an example, the facility has been used for the ground calibration of the JEM-X instrument above the INTEGRAL satellite.