

APRIL 2020

» FOCUS COVID-19



RESEARCH ORGANISATIONS FOR SCHOOL

Contributing to distance teaching with high-level, in-depth content produced by Italian research communities: this is one of the objectives of the Council of Presidents of Public Research Bodies (ConPER). The Council has hence decided to offer schools - today reorganised via distance teaching due to the COVID-19 crisis - the vast library of video materials, documentaries, video-lessons, virtual visits, interactive materials, and social initiatives produced by the Research Bodies to inform students, teachers and families about research subjects and methods in Italy. The meeting place is the platform "*Research bodies for students, teachers and families*", which was specially set-up by the National Institute for Documentation, Innovation and Educational Research (INDIRE). Here, all the material was gathered and indexed in a very short time, being organised by themes, tags, and participating institutes. Continuously updated, the catalogue is not just a teaching and learning tool, but also a spur to become familiarised with less well-known research fields.

INFN has responded to the initiative by making available not only the documentaries and archive recordings made at numerous Public Engagement initiatives produced over the years, such as public exhibitions and events, but also by presenting the new material has been developed precisely to support the distance teaching the state of emergency has enforced. Gravitational waves, antimatter, dark matter, and Higgs boson are some of the characters of the content offered by INFN; there are also cartoons and educational shows for children. To respond to schools' need for content and activities, INFN has also kicked off, especially via social media, numerous initiatives for dialogue between students and the scientific community. From the first day of school closure, the INFN community opened up to students with the social media initiative "Particle Land": a weekly Facebook Live event during which researchers describe their research activity and the physics behind them and respond



APRIL 2020

» FOCUS COVID-19

to questions from the online audience. The initiative met with immediate success among students, and not just students, consistently attracting an audience of some hundreds of spectators.

"At school with you" is the in-depth teaching path on modern physics that was launched through INFN's communication portal ScienzaPerTutti [Science for Everyone]: the path involves a series of hypertextual knots that re-traverse the great themes of contemporary physics. INFN's national projects for disseminating scientific culture have also refurbished their offerings according to the needs of this chance historical moment. For example, Art&Science Across Italy has launched the Art&Science KIDS initiative, an artistic contest for primary and middle schools, broadcast via a series of YouTube Live streams during which the conversation with children revolves around the history of the evolution of the universe. The "Aggiornamenti" project, addressed to teachers at middle school, has offered students, as well as their teachers, simple experiments from classical physics that can be replicated at home, on the Facebook and YouTube platforms. Together with seminars and lessons periodically proposed by the INFN Divisions and laboratories on their Facebook and YouTube channels, all the materials produced merge, in turn, on the Research Bodies' platform, thus adding to the Bodies' overall offering.

Overall, "Research bodies for students, teachers and families" hosts themes that range from physics, astrophysics, space, the environment, nature, technology, and mathematics to human and social sciences, innovation, energy saving, and research in a broader sense.

*All the Public Research Bodies contribute an extraordinary wealth of material:; besides INFN: Area Science Park, Italian Space Agency, National Research Council, Council for Agricultural Research and Economics, Fermi Centre, ENEA, National Institute of Astrophysics, National Institute of Higher Mathematics, National Institute for Documentation, Innovation and Educational Research, National Institute of Geophysics and Volcanology, National Institute of Metrology Research, National Institute for the Assessment of the Education and Training System, Italian Institute for Germanic Studies, Italian Institute for Environmental Protection and Research, Italian Institute of Health, Italian National Institute of Statistics, National System for Environmental Protection, Stazione Zoologica Anton Dohrn research institute.