

T5_83 FISICAONDEMUSICA: A WEB ENVIRONMENT ABOUT WAVE PHYSICS AND MUSICAL ACOUSTICS

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The author presents <http://fisicaondemusica.unimore.it>, a web site he created within the "Progetto Lauree Scientifiche" with the main goal to stimulate and encourage young people approaching the study of scientific subjects. The main concepts of wave physics are introduced in a non-standard way by means of the joint use of animations, audio samples, textual paragraphs, and interactive simulations. The natural curiosity and naive first person experience that people have got about music and sound are exploited as first steps towards the scientific understanding of wave phenomena, that must be carefully simulated and guided. In fact particular effort was made to illustrate non trivial real-world situations simple enough to be investigated with elementary concepts and mathematical tools, yet interesting and significant both in a musical and a physical framework. The web site, that currently includes more than 1300 multimedia files in about 190 web pages, also provides more traditional sections including ordinary prototype lessons with internal links to the interactive simulations, and to the less standard sections, that are suitable to be used as support to teaching activity in secondary school level education.