

Università degli Studi di Catania – C.d.L. in Informatica Triennale – A.A. 2019/20







Computer Music (6 CFU) – Prof. Filippo L.M. Milotta

Teaching Material in English

In the academic year 2019/20, the Erasmus student Ute Skarupa realized the following English translations of the Italian teaching material available on my website.

The translated documents may contain errors. They do not substitute any educational book. It should be used only as a support material during the learning process. Please, report any error by e-mail.

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ID	Content	PDF
01	Sound and Audio. Waves, waveform, and periodicity. Vibration, Propagation, Revelation. Amplitude, Period, Frequency, Phase, and Wavelength.	
02	Superposition of waves (overlapping principle). Waves in phase and in phase opposition. Periodic wave – Mathematical function. Amplitude of sounds.	
03	Amplitude Pressure. Audibility thresholds. Decibel. Sound Pressure Level (SPL).	
04	Inverse-square Law. Acoustic Monopole. Speed of sound. Wavelength.	
05	Deviation of sound waves. Refraction. Can wind bring sounds?. Reflection. Echo. Diffraction. Doppler Effect. Sonic boom and Mach Number.	
06	Human perception of sound. Difference between pure sound and complex sound. Natural tone and timbre. Fourier Analysis. Spectrogram.	
07	Sound frequency (Notes). Octave in music. Amplitude and Envelope. Colors of noise.	