UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Electronics for Physicists

86R-XXXVI-EP

Aims

Contents

Subjects of the 16 hours of lecturers:

1. A physical/mathematical approach to the fed-backed amplifiers and their strategic importance;
2. The fed-backed amplifiers characteristics from the physical/mathematical method;
3. Frequency behavior of fed-backed amplifiers and the importance of stability;
4. Amplifiers and noise;
5. A heuristic introduction to transistors in view of their employment with low noise amplifiers;
6. Amplification of detector signals and optimization of their signal to noise ratio with emphasis on low frequency noise and low drift, jitter and radiation hardness.

Detailed program

Prerequisites

The lecturers are for experimental physicist. No specific background about Electronics is necessary. The only requirement is the knowledge of the Ohm law and the Fourier Transform.

Teaching form

2 CFU, 16 hours.

Textbook and teaching resource

Semester

Assessment method

Office hours