



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Electronics for Physicists

86R-XXXVI-EP

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#### Aims

#### Contents

Subjects of the 16 hours of lectures:

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**

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