



UNIVERSITA' DEGLI STUDI DI PAVIA

*DOTTORATO DI RICERCA IN FISICA*

## LEZIONE VOLTIANA

*Inaugurazione Colloquia  
del Dottorato in Fisica, a.a. 2015/2016*

**Giovedì 28 Gennaio 2016**

**Aula 102 "L. Giulotto", ore 16.00**

*Dipartimento di Fisica, via Bassi 6, Pavia*

## **Some practical applications of Calorimetry**

**Richard Wigmans**

*Texas Tech University, USA*

**Abstract:** In this lecture, I will discuss a variety of applications of calorimetry, the technique to measure energy by means of total absorption. I will start with some thermodynamic examples, such as the measurement of the specific or latent heat of certain materials, the solar constant, the amount of energy released in certain chemical reactions, and the non-destructive assay of fissile material. Then, I will switch to applications in particle physics, where calorimeters play an important role in detecting electrically neutral reaction products, as well as important general characteristics of the events generated in high-energy particle-particle collisions. I will finish by describing the role of calorimeters in the search for the elusive dark matter, both here on Earth and outside the Earth's atmosphere.

