



UNIVERSITÀ DEGLI STUDI
DI PERUGIA

DOTTORATO DI RICERCA

SCIENZA E TECNOLOGIA PER LA FISICA E LA GEOLOGIA

COSMOPHYSICS AND COSMOCHEMISTRY OF THE EARLY SOLIDS IN THE SOLAR SYSTEM

(M. Busso & F. Frondini)

FIRST PART

(PHYSICS: 11 HOURS)

Maurizio Busso

23-24-25-27 Febbraio, ore 15 aula D, edificio di Fisica

1. Outline of the Formation of the Solar System (2hrs)
2. "Calcium Aluminum Inclusions" and Presolar Grains (1hr)
3. Isotopic anomalies inherited from the Interstellar Medium (1hr)
4. Short-lived radioactivities: evidence for a contamination from a nearby dying star (2hr)
5. The crucial role of ^{26}Al and ^{60}Fe in heating and melting the planetary materials (1hr)
6. Nuclear processes in stars more evidently involved in generating the anomalies (3hr)
7. Cosmochronology and dating methods from long and short lived radioactive species (1hr)

SECOND PART

(GEOCHEMISTRY: 11 HOURS)

Francesco Frondini

date e aula: da definire con il docente

1. Experimental techniques (con Maurizio Petrelli, 2 hrs);
2. Classification of Meteorites, chemistry, petrology, mineralogy (3 hrs)
3. The Origin and Earliest History of the Earth (3hrs)
4. Volatiles in Meteorites (2 hrs)