

# Photoemission: a many body viewpoint

Introduce

**Luigi SANGALETTI**

Università Cattolica del Sacro Cuore

Relatore

**Norman MANNELLA**

Associate Professor, Experimental Condensed Matter Physics

University of Tennessee – Knoxville

ABSTRACT:

Photoemission is one of the premiere techniques used to study the electronic structure of different forms of matter.

These lectures aim at illustrating how a photoemission experiment can reveal crucial information about the interactions in a many body system. By detecting photoelectrons, a photoemission experiment measures the excitation spectrum of a many body system upon single particle removal and, within certain approximations, provides a direct measurement of the single particle Green function. The lectures will provide a description of these fundamental ideas making use of fundamental notions and techniques of Many Body Theory such as quasiparticles, Green functions, and Feynman diagrams.

## Ciclo di lezioni

**Martedì 3 luglio 2018 – ore 10.00-12.00; 14.30-16.30**

**Mercoledì 4 luglio 2018 – ore 10.00-12.00; 14:30-16:30**

**Giovedì 5 luglio 2018 – ore 10.00-12.00**

**Aula 8**

Via dei Musei 41 - Brescia

