

**Title:** The Standard Model

**Lecturer:** Dr Antonio Pich

**Date and Times:**

- 18<sup>th</sup> July at 10:15
- 21<sup>st</sup> July at 9:15
- 21<sup>st</sup> July at 10:15
- 22<sup>nd</sup> July at 9:15
- 23<sup>rd</sup> July at 9:15
- 24<sup>th</sup> July at 9:15
- 25<sup>th</sup> July at 9:15
- 25<sup>th</sup> July at 10:15

**Summary of the proposed talk:**

The Standard Model of Elementary Particle Physics will be described. A detailed discussion of the particle content, structure and symmetries of the theory will be given, together with an overview of the most important experimental facts which have established this theoretical framework as the Standard Theory of particle interactions.

**Prerequisite knowledge and references:**

Quantum Mechanics.

Suggested Reading:

- A. Pich, "The Standard Model of Electroweak Interactions":  
[http://arxiv.org/PS\\_cache/arxiv/pdf/0705/0705.4264v1.pdf](http://arxiv.org/PS_cache/arxiv/pdf/0705/0705.4264v1.pdf)
- A. Pich, "Aspects of Quantum Chromodynamics":  
[http://arxiv.org/PS\\_cache/hep-ph/pdf/0001/0001118v1.pdf](http://arxiv.org/PS_cache/hep-ph/pdf/0001/0001118v1.pdf)
- A. Pich, "The Standard Model of Particle Physics, 2007 CERN Summer Student Lectures":  
<http://indico.cern.ch/tools/SSLPdisplay.py?startdate=2007-07-02&nbweeks=7>

**Biography-**

**Brief CV:**

- 1979: Physics Diploma, University of Valencia
- 1983: PhD, University of Valencia
- 1984-1986: Post-Doc Max-Planck Institut, Munich
- 1987-1988: CERN Fellow
- 1989-1990 and 1994-1998: CSIC Research staff
- 1991-1993: CERN research staff (TH division)

**Publications:**

181 entries in SPIRES

<http://www.slac.stanford.edu/spires/find/hep/www?rawcmd=a+pich%2Ca>