



# CERN Joint EP/PP Seminars

SPEAKER: **Alvaro De Rujula (CERN)**  
TITLE: **A Higgs-Analysis Vade Mecum**  
DATE: Mon 02/11/2009 11:00  
PLACE: Main Auditorium\*\*

## ABSTRACT

The properties of the elusive scalar of the standard model, given its mass, are entirely specified. In spite of this, there are good reasons to re-discuss some obvious questions:

To what extent does a given set of observations compatible with the predictions constitute an indisputable discovery?

What process and analysis procedure can reach 'discovery level' first?

With what confidence can one determine the quantum numbers of a putative scalar, and study whether it is elementary or composite, and pure or 'impure' in its couplings?

How and how well can one favour or exclude 'Higgs impostors'?

Our emphasis is on the 'most wanted' standard particle and its  $ZZ$  or  $ZZ^*$  decays. Yet, our analysis of the Higgs and its possible impostors encompasses the study and characterization of novel neutral bosons of spin 1 and 2 and is extensible to other particles and decays.

Organised by: Maria Spiropulu-----\*\*Tea and  
coffee will be served at 10:30