# PARALLEL SESSION 1 STANDARD MODEL PHYSICS

[ GUIDO BELL + CARMEN DIEZ PARDOS ]

TP1 Theoretical Particle Physics

CPPS Center for Particle Physics Siegen

HEP Experimental High Energy Physics

## Overview

A significant fraction of our research activities belongs to this session

- $\triangleright$  Determination of  $V_{cb}$  and  $V_{ub}$  from inclusive and exclusive B decays
- $\triangleright$  Determination of  $V_{cb}$  and  $V_{ts}$  from top-quark decays
- ▶ SM predictions for rare (inclusive and exclusive) B decays
- QCD corrections to B-meson mixing and lifetime observables
- CP violation in hadronic B decays
- QCD and electroweak corrections to (associated) top-quark production
- ▶ Measurement of  $t\bar{t}$ ,  $t\bar{t}H$ ,  $t\bar{t}Z$ ,  $t\bar{t}\gamma$ ,  $t\bar{t}t\bar{t}$  observables
- Measurement of top-quark properties and couplings
- Monte-Carlo simulation of collider processes
- ▶ Event shape studies at e<sup>+</sup>e<sup>−</sup> and hadron colliders

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# Schedule

### Thursday

CKM: Measuring Vts and Vcb	Diptaparna Biswas
Landhaus Nordhelle	13:40 - 13:55
	13:55 - 14:05
Inclusive rare B decays	Jack Jenkins
Landhaus Nordhelle	14:05 - 14:20
	14:20 - 14:30
Top quark measurements: (some) ( Carmen Diez Pardos	general aspects

#### Friday

QCD and resummation	Guido Bell
Landhaus Nordhelle	11:00 - 11:15
Modelling of top quark p Katharina Voß	pairs
Monte Carlo (Whizard)	Nolfgang Kilian