



LHC Seminar

SPEAKER: Patrick Haworth Owen (Imperial College Sci., Tech. & Med. (GB))

TITLE: **First determination of V_{ub} using the exclusive decay $\Lambda_b \rightarrow p \mu \nu$ with the LHCb detector**

DATE: Tue 24/03/2015 11:00

PLACE: Main Auditorium

ABSTRACT

The magnitude of the matrix element V_{ub} is one of the eighteen fundamental parameters of the Standard Model (SM). Consistency checks of these parameters is one of the best ways to search for physics beyond the SM. Past measurements using inclusive and the exclusive b-hadron decays have resulted in significantly different results (known as the V_{ub} puzzle). This seminar will report the first measurement of $|V_{ub}|$ at a hadron collider and the first using a baryon decay, made using the decay $\Lambda_b \rightarrow p \mu \nu$.

The measurement achieves a relative precision of 7.3% which is more precise than any existing published exclusive measurements.