

**NITheCS Colloquium**  
**Monday, 20 June 2022, 16h00 – 17h00 SAST**  
Prof Sahal Yacoob (University of Cape Town)

## **‘A W-Boson by Any Other Mass’**



### **ABSTRACT**

A recent publication of the W-Boson Mass has been recently published from Tevatron data collected over 10 years ago. I aim to summarise the intricacies of the measurement from an experimental point of view. The importance of the measurement from a theoretical standpoint and the influence of this updated measurement, which is inconsistent with previous determinations on our understanding of the universe, will also be explored. I was not involved in this more recent measurement from the Tevatron.

### **BIOGRAPHY**

Sahal Yacoob is an experimental particle physicist and Associate Professor at UCT, where they have been since 2015 as the leader of the ATLAS experimental group. This group collects and analyses data from proton-proton collisions from the CERN Large Hadron Collider.

Prof Yacoob is a co-author of the ATLAS experiment Higgs Discovery Paper.

A short time prior to this, Prof Yacoob's PhD focused on a measurement of the mass of the W Boson at the Tevatron experiment.

In addition to fundamental physics, Prof Yacoob is committed to increasing diversity in science and has led many outreach and diversity initiatives.

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