

Electroweak WZ production measurement and an EFT interpretation with the ATLAS detector at $\sqrt{s}=13$ TeV (20+10)

Tuesday 18 March 2025 16:00 (30 minutes)

Vector Boson Scattering in the WZ fully leptonic channel was studied in ATLAS with the full Run 2 data of 140 fb⁻¹ and the results were published recently. The importance of the channel for the study of the Electroweak Symmetry Breaking and for indirect New Physics searches beyond the Standard Model will be presented. The results of the cross section measurements will be discussed and the procedure for an Effective Field Theory interpretation of the existence of quartic gauge couplings will be shown. Limits on anomalous couplings related to dimension-8 operators, which are relevant to the process, will be presented and discussed. Finally as it is known that the dimension 6 operators play an important role on VBS processes, a first study using the new UFO SmeftFR model, which incorporates both dimension 6 and dimension 8 operators, will be shown.

Track/session

Plenary track

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Session Classification: Early career scientists presentations