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Presentation 25: Search for CP-violating components in leptonic WH production with the ATLAS detector

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A big open question in our understanding of the universe comes from there being more matter than antimatter in the universe today, while the theory predicts the Big Bang produced the same amount of each. A condition for this difference to exist is a violation of Charge and Parity symmetry. According to some new theories, this violation could originate in interactions with the Higgs boson that the Standard Model of Particle Physics does not account for.

The goal of this project is to look for potential anomalous couplings between the Higgs and W bosons that could suggest this is a source of the Charge-Parity violation required to explain the matter-antimatter asymmetry, using data from the ATLAS experiment.

Presenter: ROSALINO, Beatriz (Instituto Superior Técnico)