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【342】 Measurement of CP violation with the ATLAS experiment

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Direct and indirect CP violation is observed in particle decays. The latter usually includes oscillations between a neutral meson and its antiparticle. ATLAS measures this type of CP violation in the decay $B_s \rightarrow J/\psi + \phi$, with $J/\psi \rightarrow \mu^+\mu^-$ and $\phi \rightarrow K^+K^-$, mainly because it is sensitive to higher order effects and therefore to deviations from known physics. Here the quantity of interest is the so-called weak mixing phase ϕ_s . Latest results will be presented and compared to similar analyses from other LHC experiments as well as with the expectation from the Standard Model.

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