

## Elastic and Diffractive Scattering at the LHC.

## Tuesday, 15 May 2018, 16:45 h DESY Auditorium

## Paul Newman (Univ. of Birmingham)



Whereas most LHC physics is concerned with very rare or exotic processes such as the production of Higgs bosons or new particles beyond the Standard Model, our understanding of what 'usually' happens in high energy proton-proton collisions is surprisingly poor. This talk will review LHC measurements of some of the most commonly occurring processes, which lead to final states with intact protons. These will include elastic scattering (pp $\rightarrow$ pp), diffractive dissociation (pp $\rightarrow$ Xp) and 'ultra-peripheral' vector meson production ( $\gamma p \rightarrow Vp$ ). The talk will also cover prospects for future studies of central exclusive production (pp $\rightarrow$ pXp) with unprecedented high luminosities.

## Coffee, tea and cookies will be served at 16:30h

After the colloquium there is a chance for private discussions with the speaker over wine and pretzels

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