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## Electroweak corrections to vector boson pair production at the Large Hadron Collider

*Thursday, 6 April 2017 11:00 (15 minutes)*

The investigation of pair production processes of the electroweak gauge bosons is of great importance at the Large Hadron Collider. They represent an irreducible background to precision studies of the Higgs boson and are important signal processes for new physics searches. In this talk, the next-to-leading order electroweak corrections to the off-shell production of WW, WZ and ZZ pairs including their leptonic decays will be presented. The electroweak corrections are of the order of 3-5% for the total cross sections and may reach several tens of percent at the level of kinematical distributions. We show integrated and differential cross sections for inclusive setups as well as for setups relevant for Higgs-boson analyses or triple gauge coupling investigations. The role of photon-induced contributions as well as the impact of interference effects from equal-flavour leptons in the final state will be discussed as well.

**Primary author:** Dr BIEDERMANN, Benedikt (Universitaet Wuerzburg)

**Co-authors:** Prof. DENNER, Ansgar (Universitaet Wuerzburg); Prof. DITTMAYER, Stefan (Universitaet Freiburg); Prof. JAGER, Barbara (Universitaet Tuebingen); Dr HOFER, Lars (Universitat de Barcelona)

**Presenter:** Dr BIEDERMANN, Benedikt (Universitaet Wuerzburg)

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