High mass dibosons gathering at the LHC

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Interactions with a pair of electro-weak bosons (dibosons) provide key handles to search for new physics in collider experiments. As fundamental elements to electro-weak symmetry breaking, they have played key roles in the Higgs boson discovery in Run-1. The high mass region, where the invariant mass of the dibosons is well above ~300 GeV, is particularly sensitive to a wide range of BSM physics models. In my talk I will summarise the latest experimental results from ATLAS in this region, covering both resonance researches and measurements in the high mass tails of the Higgs boson productions. Selected topics include the off-shell Higgs boson couplings in Run-1 and diboson resonance searches (WW/ZZ/WZ/Diphoton) in Run-2. A brief discussion from phenomenological perspective is also included.