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ATLAS search for the decay $H \rightarrow WW$

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We report the recent results for the Standard Model Higgs Boson searches using 4.7 fb⁻¹ of proton-proton collisions data at $\sqrt{s}=7\text{TeV}$, recorded with the ATLAS detector at the Large Hadron Collider. The analysis considers decay channels $H \rightarrow WW \rightarrow l\nu l\nu$ and $H \rightarrow WW \rightarrow l\nu jj$ where $l = (e \text{ or } \mu)$ with final states containing charged leptons, jets, and missing transverse energy. The event selection, the background composition extraction methods and the evaluation of systematics are detailed. No significant excess of events is observed over the expected background and limits on the Higgs boson production cross section are derived for a Higgs boson mass in the range 100 GeV - 600 GeV.

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