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Sommario/riassunto	This Thesis describes the first measurement of, and constraints on, Higgs boson production in the vector boson fusion mode, where the Higgs decays to b quarks (the most common decay channel), at the LHC. The vector boson fusion mode, in which the Higgs is produced simultaneously with a pair of quark jets, provides an unparalleled opportunity to study the detailed properties of the Higgs, including the possibility of parity and CP violation, as well as its couplings and mass. It thus opens up this new field of study for precision investigation as the

LHC increases in energy and intensity, leading the way to this new and exciting arena of precision Higgs research. .