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Searches for rare exclusive decays of the Higgs boson to a light meson and a photon with the ATLAS detector

A lot of progress on the study of the properties of the Higgs boson has been made since its discovery, however little is still known about the Higgs boson couplings to light quarks. Direct measurements of the Higgs boson decays to pairs of light-quarks are challenging due to the overwhelming hadronic backgrounds. A new window to experimentally access these couplings opens through the search for Higgs boson decays to a meson and a photon, and gives the possibility to search for new physics in this sector. The latest results from the ATLAS experiment on this front are presented and discussed.

Experimental Collaboration

ATLAS

Primary author: ROZEN, Yoram (Technion (IL))**Presenter:** OWEN, Rhys Edward (University of Birmingham (GB))**Session Classification:** Poster session**Track Classification:** Higgs and New Physics