



Contribution ID: 144

Type: **Talk**

## Searches for light Higgs bosons

*Wednesday, 1 September 2021 10:00 (30 minutes)*

The searches for light Higgs bosons after the discovery of the 125 GeV Higgs boson would be presented with the proton collision data collected by the CMS experiment at the LHC at a centre-of-mass energy of 13 TeV. The searches for light pseudoscalar Higgs bosons pair produced from the decay of the 125 GeV Higgs boson and resulting in various final states ( $4\mu$ ,  $4\tau$ ,  $2\mu 2\tau$  and  $2b 2\tau$ ) according to the mass range of the light boson will be summarised. The search for a light pseudoscalar Higgs boson decaying to tau pairs and produced in association with a bottom quark will be presented for the light boson mass range of 25 to 70 GeV. A search for CP-odd Higgs boson decays to two muons in the mass range between 15 and 75 GeV will also be presented. Moreover, the search for low mass scalar bosons below 125 GeV in decays to photon pairs will be highlighted.

### Is this abstract from experiment?

Yes

### Name of experiment and experimental site

The CMS Collaboration at CERN

### Is the speaker for that presentation defined?

Yes

### Details

Dr. Somnath Choudhury (Indian Institute of Science, Bangalore, India).

Dr. Somnath Choudhury has been selected by the CMS collaboration to present this talk.

### Internet talk

Yes

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**Session Classification:** A High Energy Particle Physics