

# Scalars 2017



Contribution ID : 91

## Extension of the Standard Model with a Doublet and a Complex Singlet and Heavy Vector Quarks

Saturday 02 Dec 2017 at 14:30 (00h15')

### Content :

I will discuss the extension of the Standard Model by a doublet and a complex scalar singlet and a pair of heavy vector quarks. This model provides an extra source of spontaneous CP violation and a strong enough first-order electroweak phase transition to suppress the baryon-violating sphaleron process. This model contains a proper description for baryogenesis and provides a correct relic density of dark matter (DM) while fulfilling direct and indirect DM detection limits and simultaneously agreeing with the LHC results.

**Primary authors :**

**Co-authors :**

**Presenter :** Ms. DARVISHI, Neda (Warsaw university)

**Session classification :** parallel session 3

**Track classification :** --not yet classified--

**Type :** --not specified--