

**CMS Preliminary**

**Dark Matter Summary - ICHEP 2016**

DM + jets/ $V(q\bar{q})$

$g_{DM}=1, g_q=0.25$

V

AV

DM +  $\gamma$

$g_{DM}=1, g_q=0.25$

V

AV

DM +  $Z(l^+l^-)$

$g_{DM}=1, g_q=0.25$

V

AV

DM + t

$g_{DM}=1, a_{FC}=b_{FC}=0.25$

V

DM +  $H(bb\gamma\gamma)$

$m_{A^0}=300\text{GeV}; m_{DM}=100\text{GeV}$

$g_Z=0.8$

DM + jets/ $V(q\bar{q})$

$g_{DM}=g_q=1$

S

PS

DM +  $t\bar{t}$

$g_{DM}=g_q=1$

$\sigma/\sigma_0 = 2$

S

PS

DM +  $b\bar{b}/t\bar{t}$

$g_{DM}=g_q=1$

$\sigma/\sigma_0 = 30$

S

PS

**EXO-16-037**

13TeV, 12.9fb<sup>-1</sup>

**EXO-16-039**

13TeV, 12.9fb<sup>-1</sup>

**EXO-16-038**

13TeV, 12.9fb<sup>-1</sup>

**EXO-16-040**

13TeV, 12.9fb<sup>-1</sup>

**EXO-16-012**

**EXO-16-011**

13TeV, 2.3fb<sup>-1</sup>

**EXO-16-037**

13TeV, 12.9fb<sup>-1</sup>

**EXO-16-005**

13TeV, 2.2fb<sup>-1</sup>

**B2G-15-007**

13TeV, 2.2fb<sup>-1</sup>

spin 1 mediator

spin 0 mediator

DM exclusions

mediator exclusions

Observed limits at 95%CL

for considered simplified models

Theory uncertainties not included

V = vector ; AV = axial-vector

S = scalar ; PS = pseudoscalar

Maximal excluded mass [GeV]