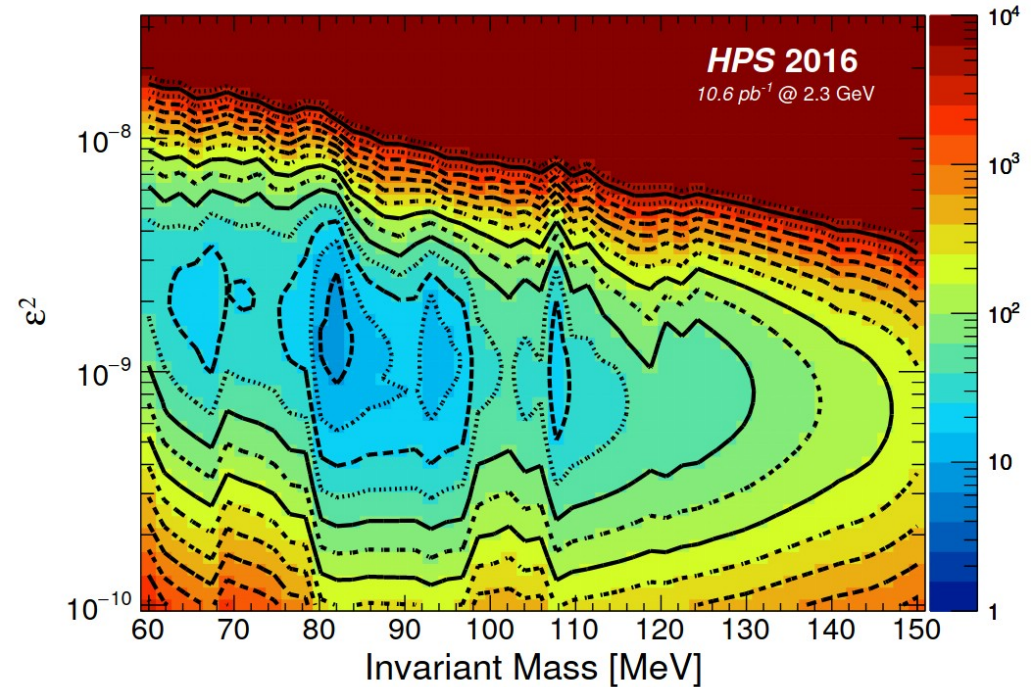
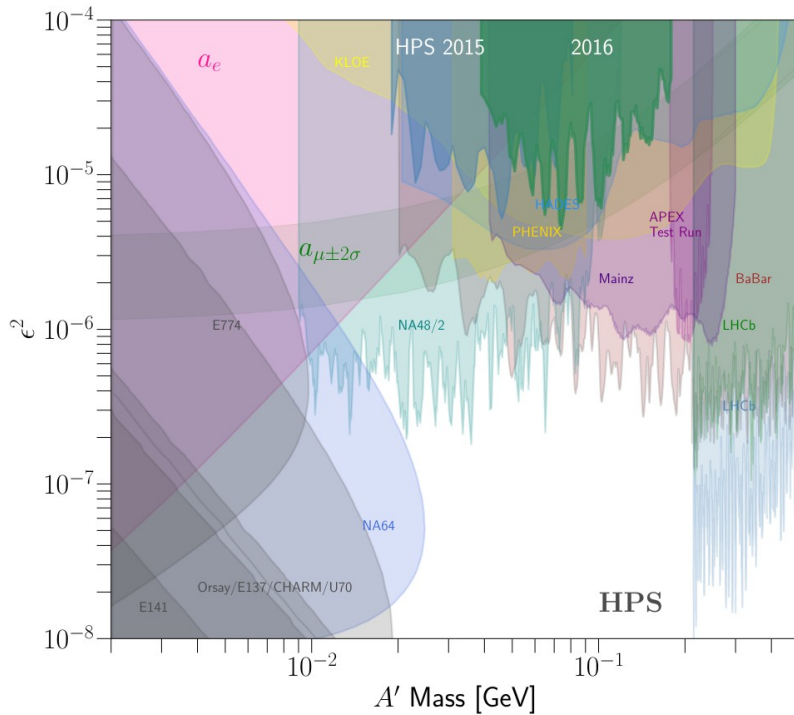


# HPS 2016 Engineering Run PRD



- HPS 2016 displaced vertex analysis a factor of 7.9 away from excluding  $A'$  at mass and  $\epsilon^2$  point of peak sensitivity
- Result has expected sensitivity
- Data collected with upgraded detector in 2019 and 2021 have expected sensitivity to some  $A'$  parameter space