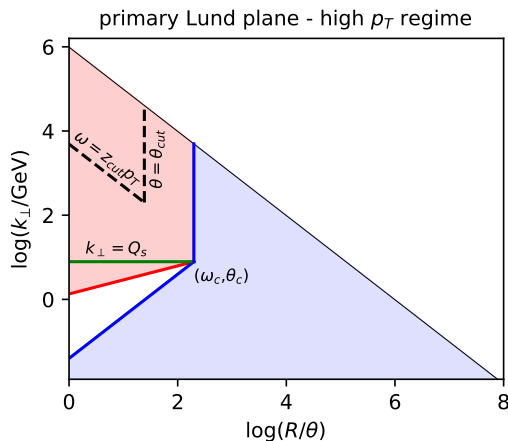


## **“Saclay model”**

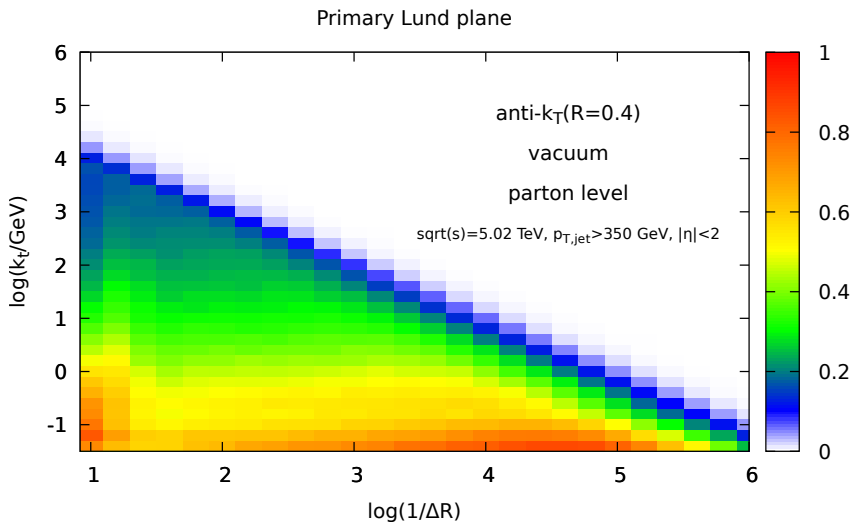
**August 15, 2019 - GSI**

# Model

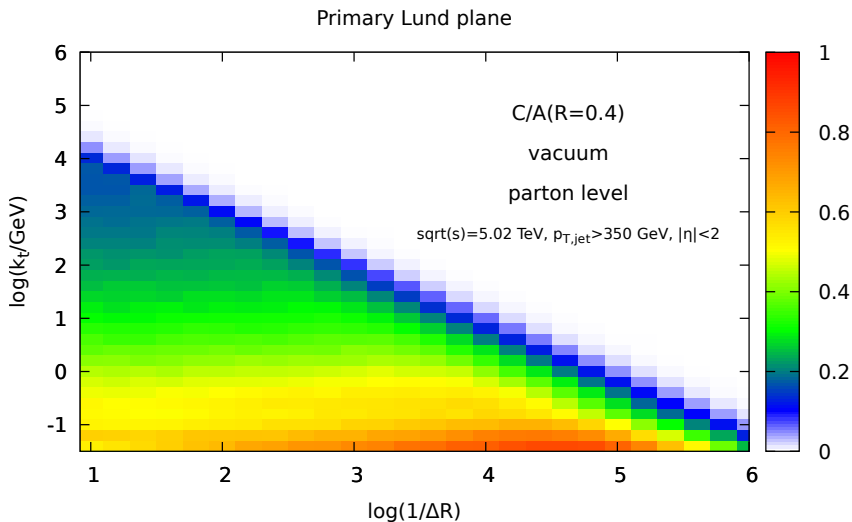


- **AO** vacuum shower in phase space :  
 $k_{\perp}^2 > \hat{q} t_f \Leftrightarrow t_f < \sqrt{\omega/\hat{q}}$   
 and  $\theta > \theta_c \propto \frac{1}{\sqrt{\hat{q} L^3}}$
- followed by medium-induced emissions à la BDMPS-Z iterated during time  $L$ ,
- then vacuum shower in PS:  $t_f > L$  or  $\theta < \theta_c$   
**without constraint on the angle of the first emission.**

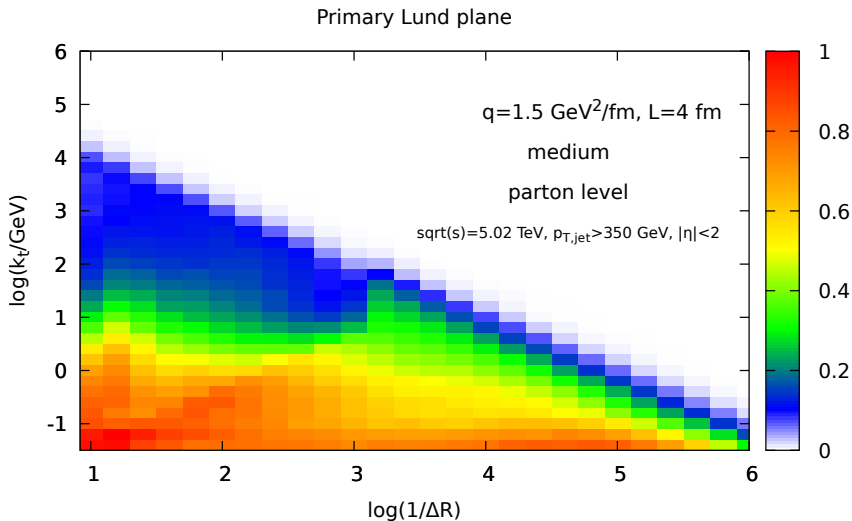
# Lund planes for the vacuum shower (“pp baseline”)



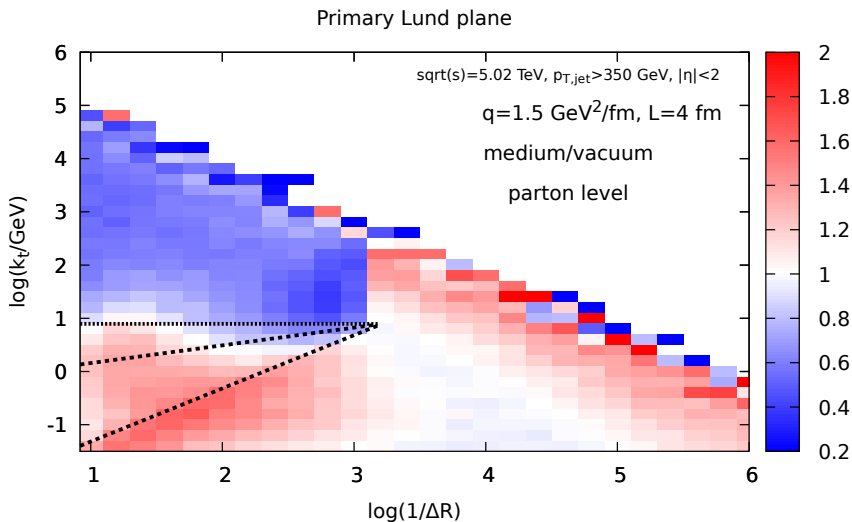
# Lund planes for the vacuum shower



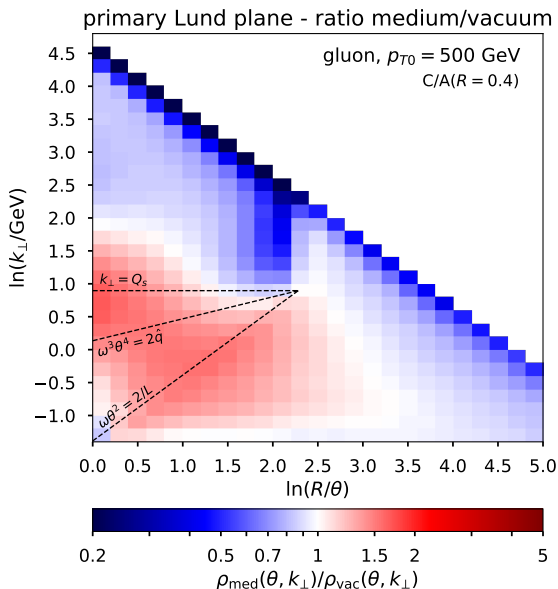
# Lund plane for the full shower



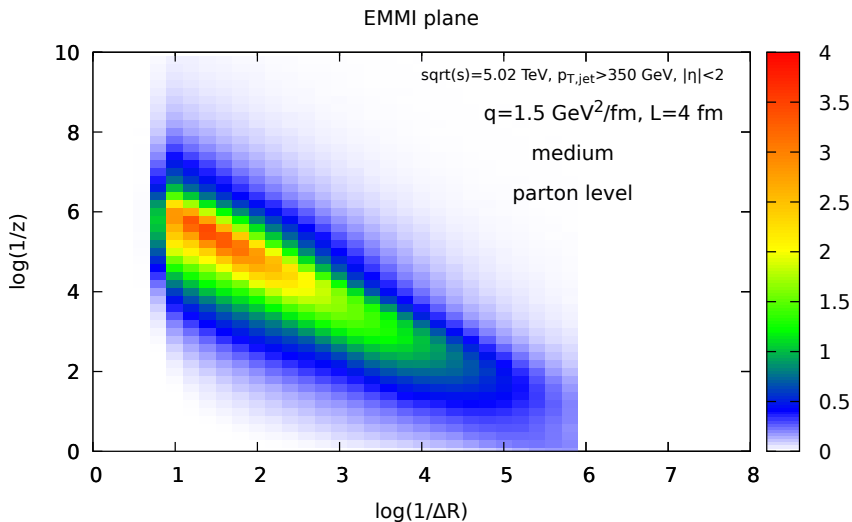
# Ratio med/vac



# Ratio med/vac - FIXED leading gluon pT



# EMMI diagram for the full shower





# Difference medium-vacuum

