

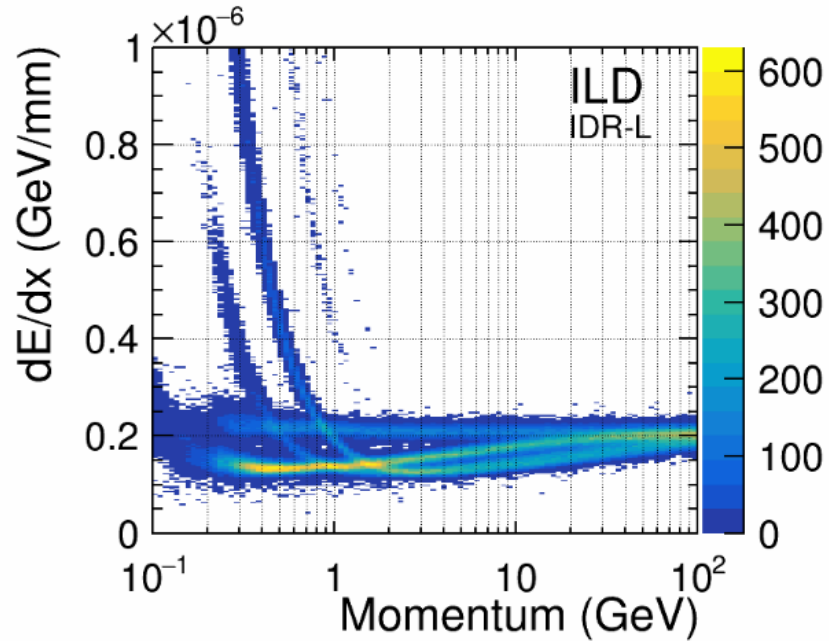
What happens with dE/dx ??

Solved mystery ?

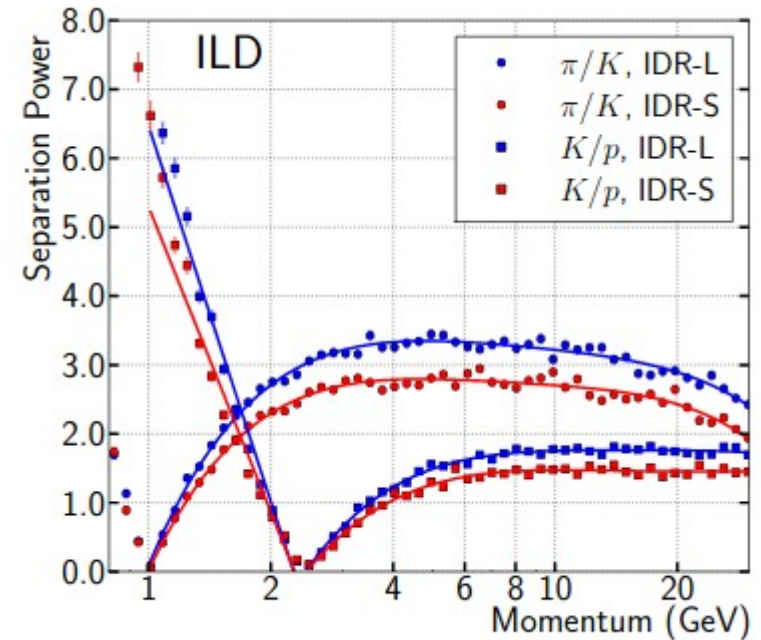
Adrián Irlés
IFIC (UV/CSIC)



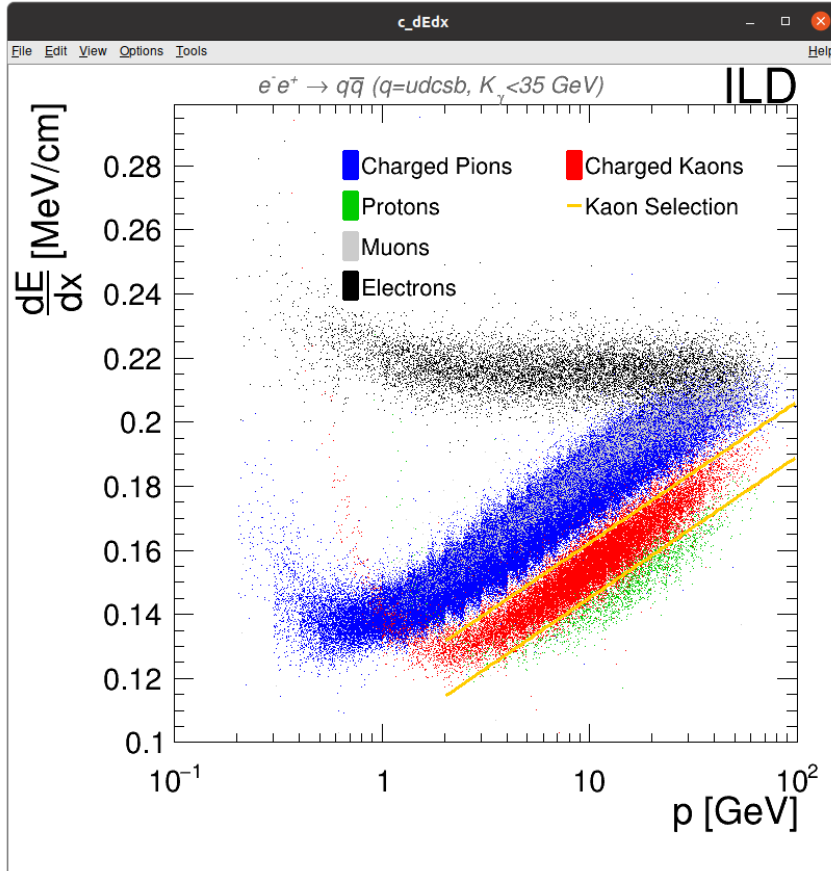
IDR: single particle



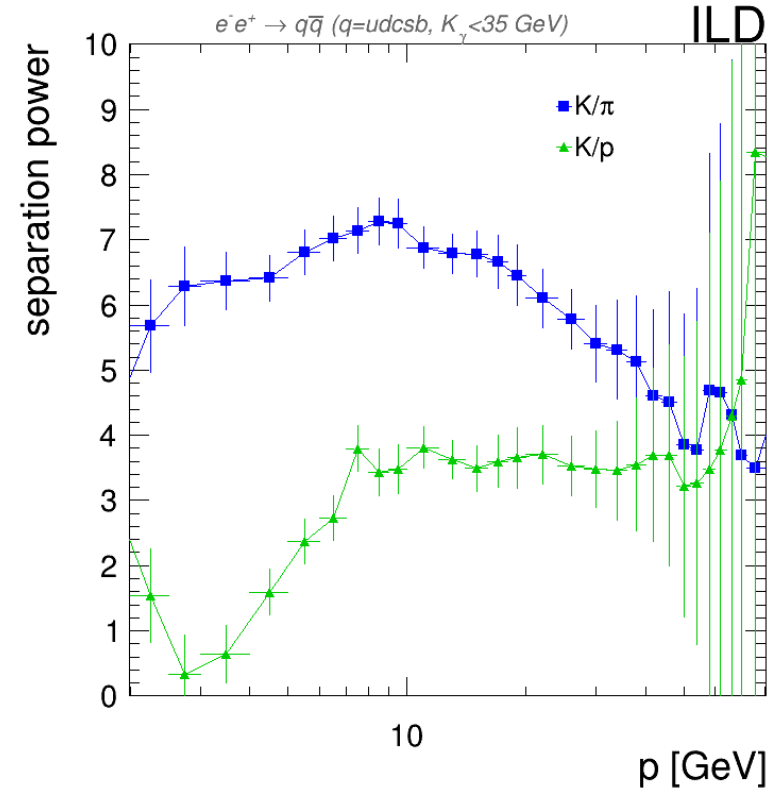
$$\eta_{A,B}(p) = \frac{|\mu_A(p) - \mu_B(p)|}{\sqrt{\frac{1}{2}(\sigma_A^2(p) + \sigma_B^2(p))}}$$



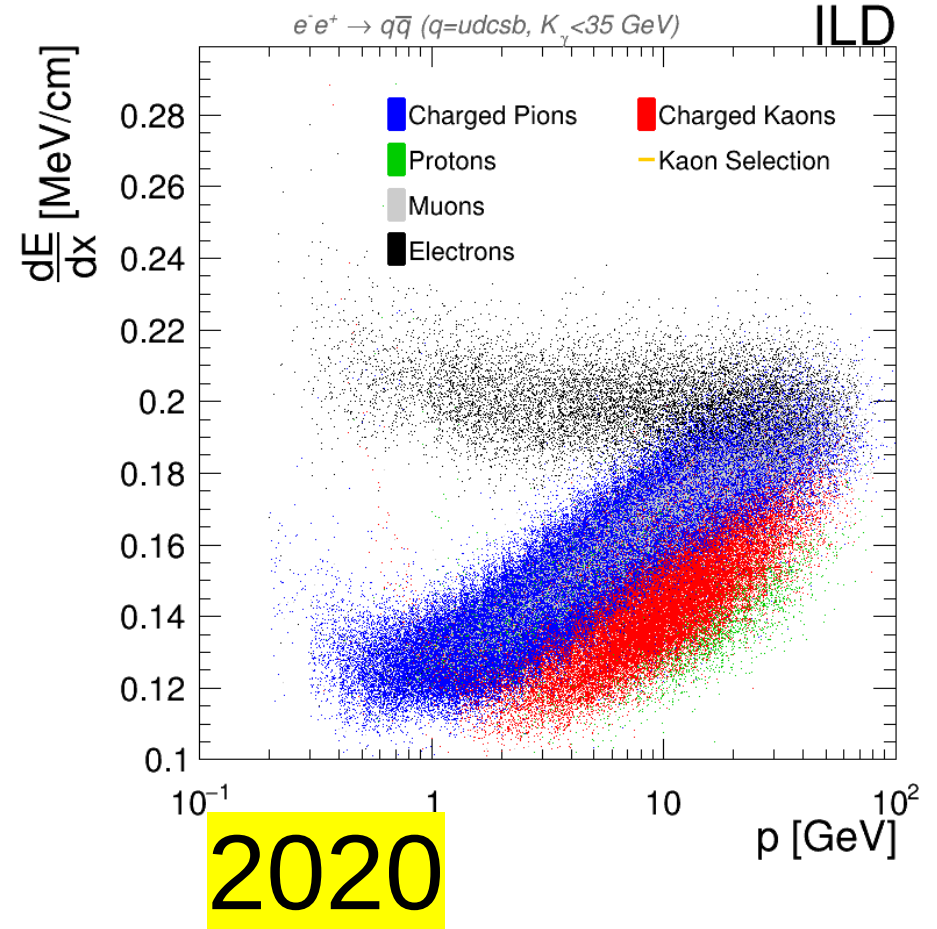
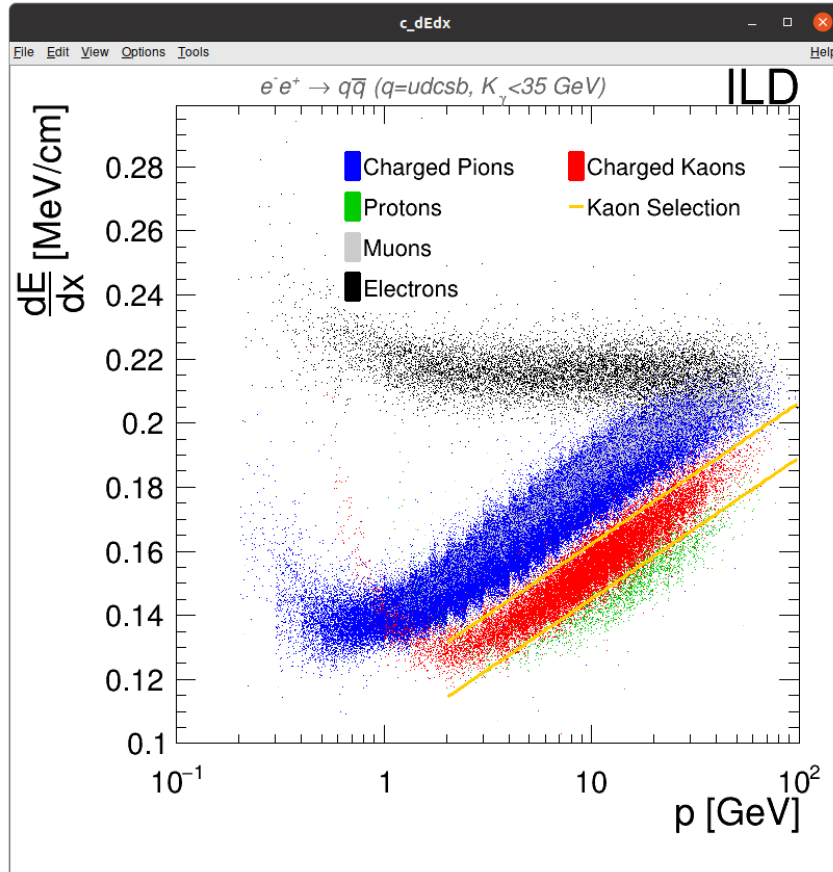
DBD rad return sample (250 GeV)



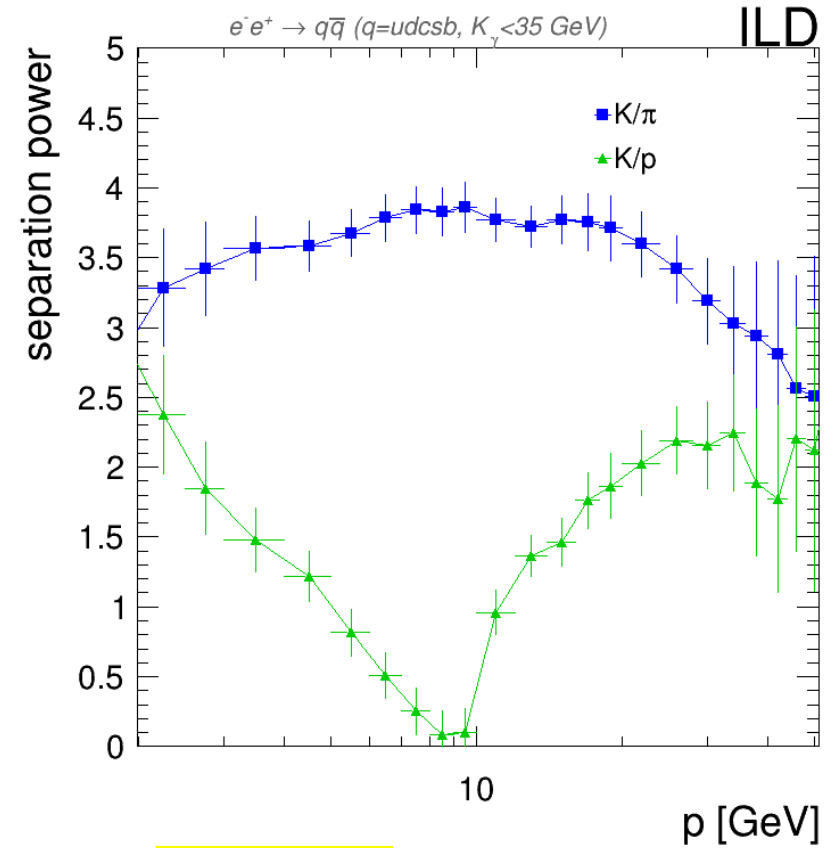
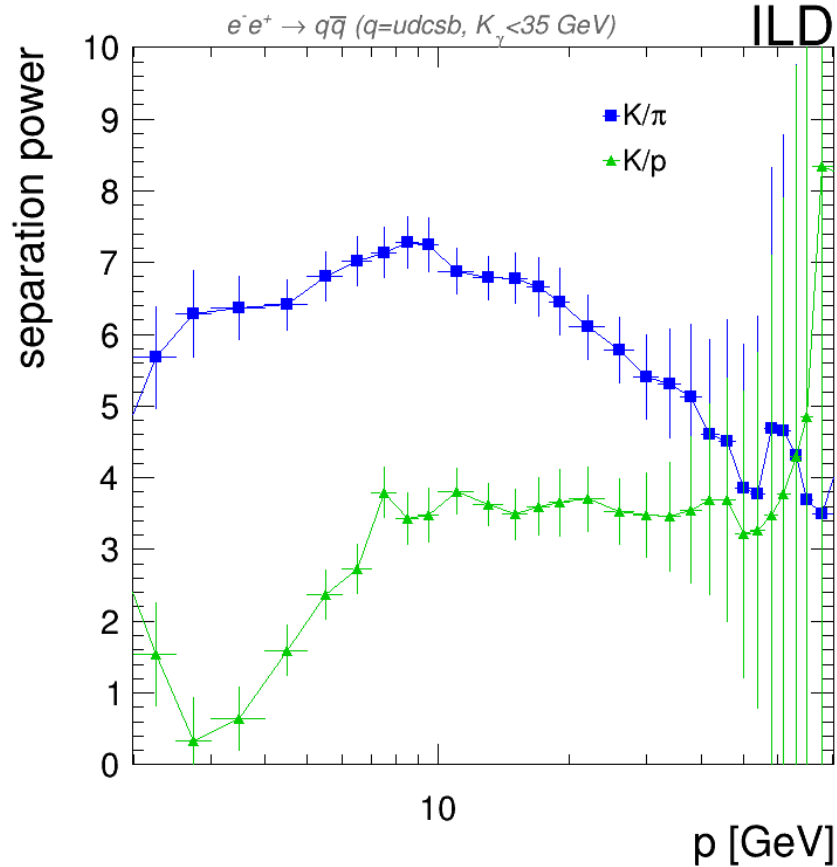
$$\eta_{A,B}(p) = \frac{|\mu_A(p) - \mu_B(p)|}{\sqrt{\frac{1}{2}(\sigma_A^2(p) + \sigma_B^2(p))}}$$



rad return sample (250 GeV) DBD vs 2020

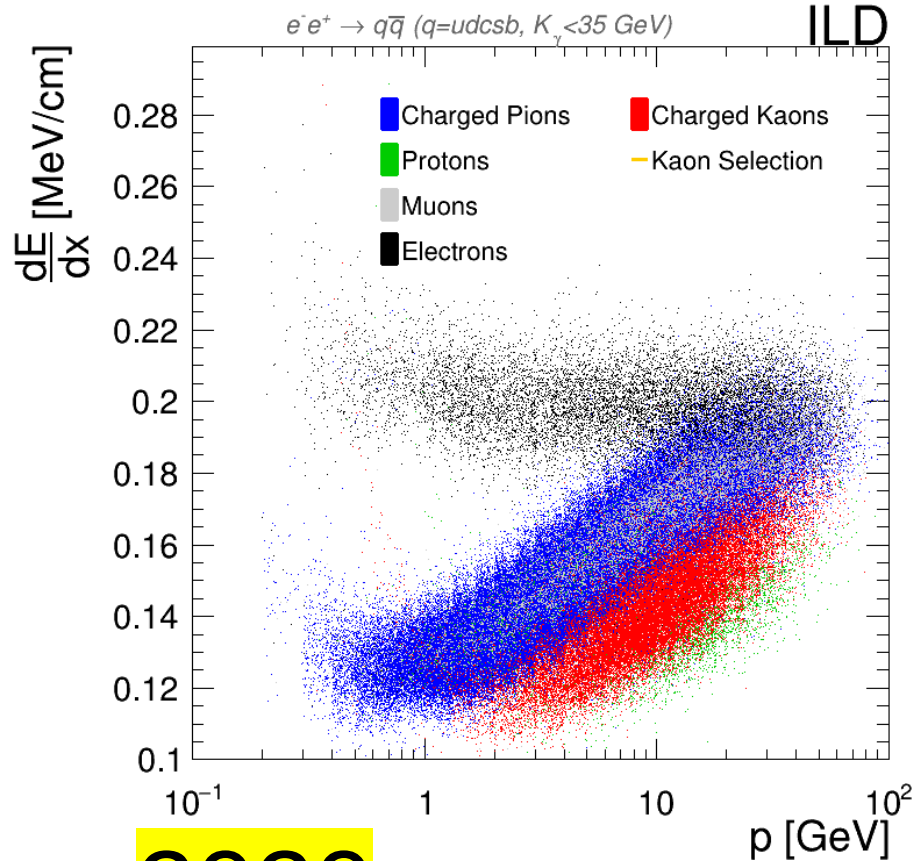


rad return sample (250 GeV) DBD vs 2020

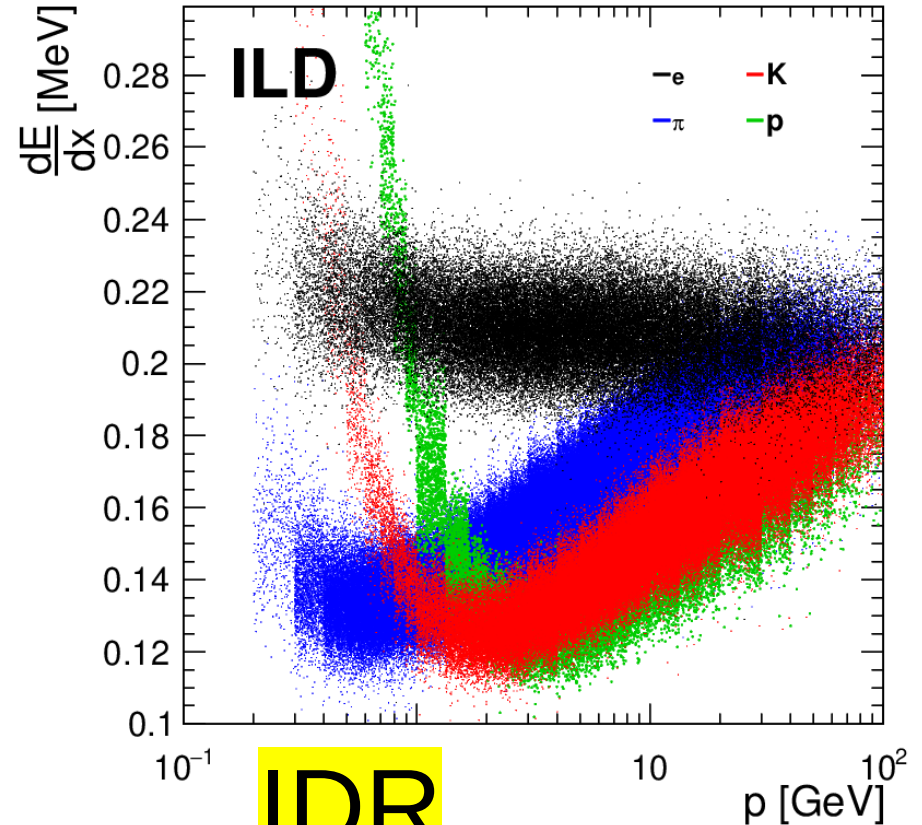


2020

2020 250 GeV vs IDR 500 GeV (large mod)



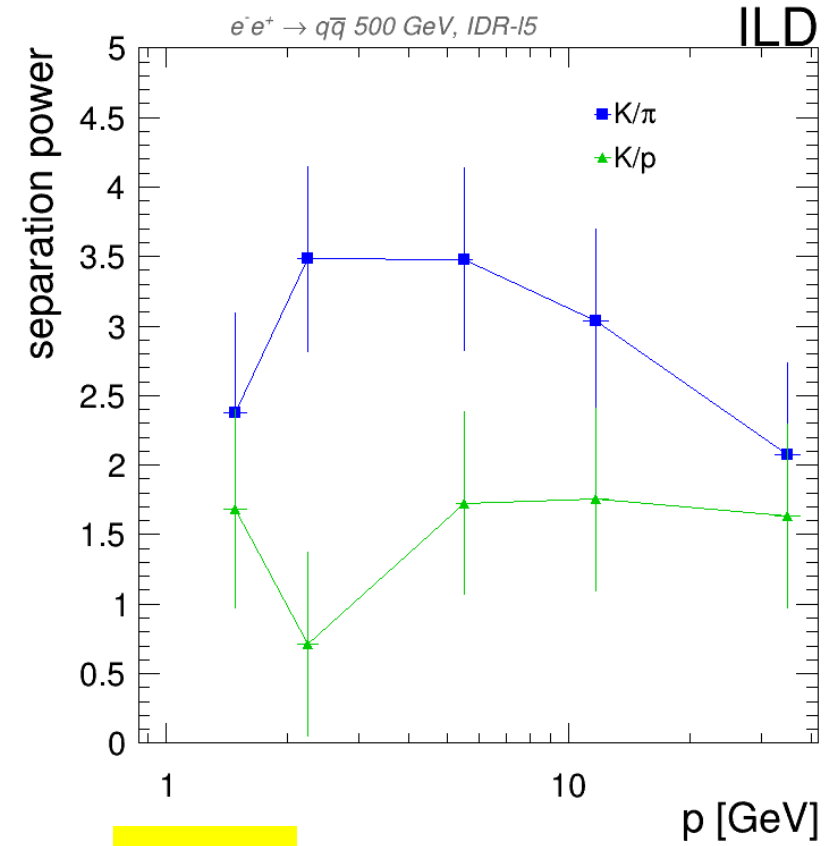
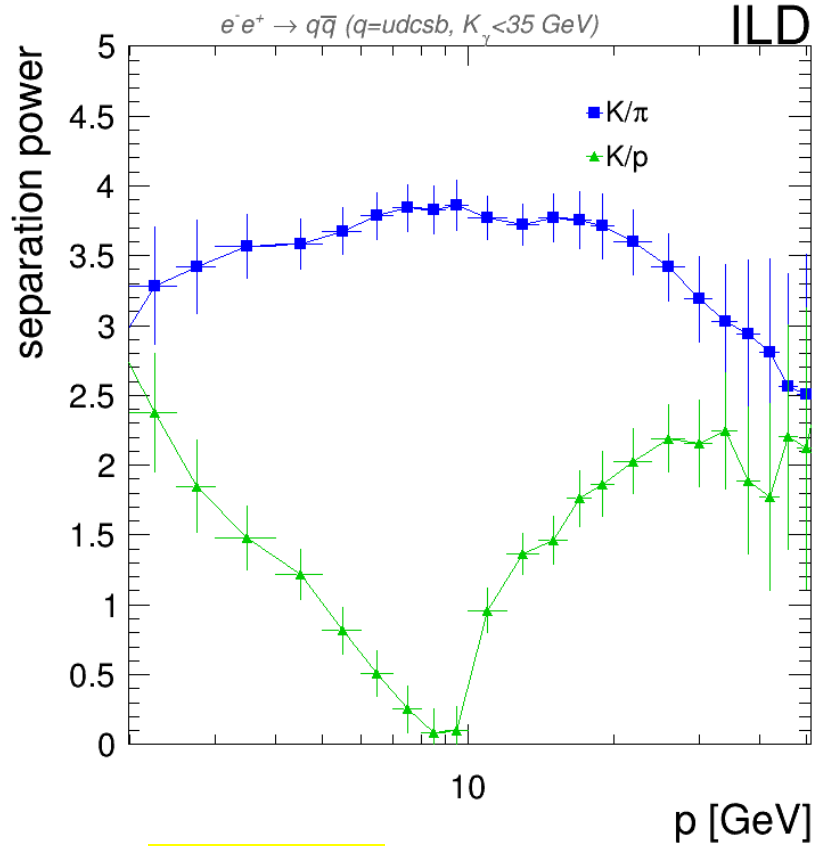
2020



► Small differences ?

• Different populations + IDR plot includes all tracks not only from sec. vertex

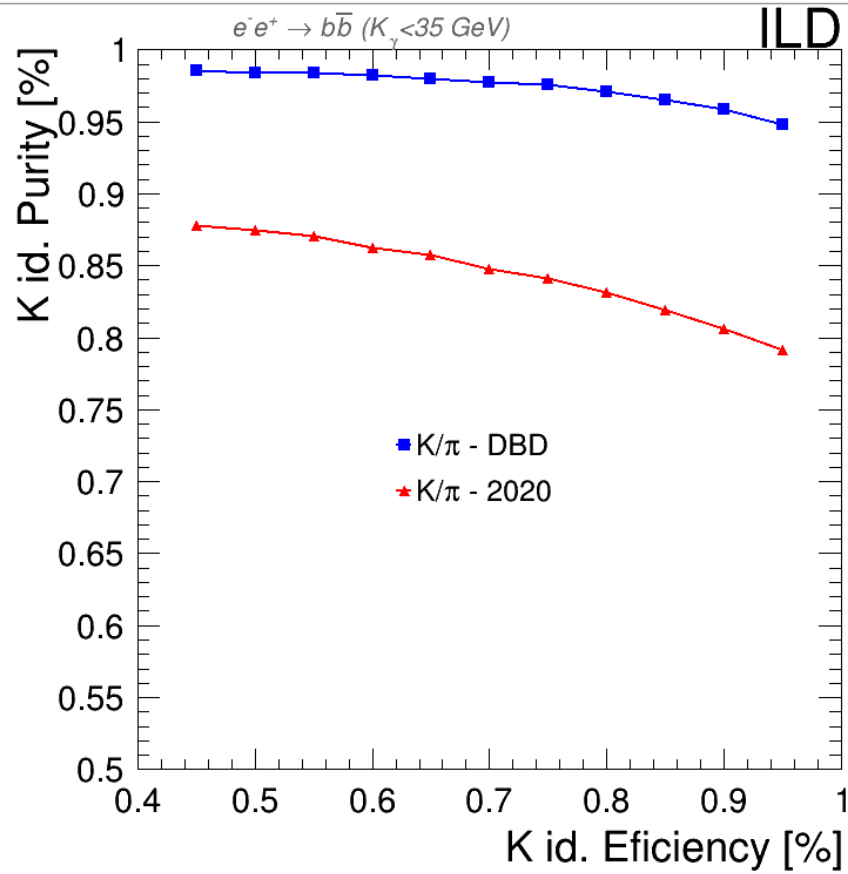
rad return sample (250 GeV) DBD vs 2020



2020

IDR

Conclusions ?



- ▶ We are currently over estimating the Kaon Separation capabilities.
 - Impact on the efficiency of K-K election
 - Impact on the p-value of the K method
- ▶ What do we do?