**Toy Data B - Cat 0**

Legend:
- KDE
- $\lambda = 0 \ (\hat{\eta}_{(b)}: 0.0039, \text{p.val}_{(b)}: 0, \hat{\eta}_{(ub)}: 0.0039, \text{p.val}_{(ub)}: 0)$
- $\lambda = 0.001667 \ (\hat{\eta}_{(b)}: 0.0026, \text{p.val}_{(b)}: 0, \hat{\eta}_{(ub)}: 0.0026, \text{p.val}_{(ub)}: 0)$
- $\lambda = 0.003333 \ (\hat{\eta}_{(b)}: 0.0013, \text{p.val}_{(b)}: 4e\text{-}04, \hat{\eta}_{(ub)}: 0.0013, \text{p.val}_{(ub)}: 4e\text{-}04$
- $\lambda = 0.005 \ (\hat{\eta}_{(b)}: -0, \text{p.val}_{(b)}: 0.5004, \hat{\eta}_{(ub)}: -0, \text{p.val}_{(ub)}: 0.5025)$

Y-axis: Events

X-axis: Energy (Gev)