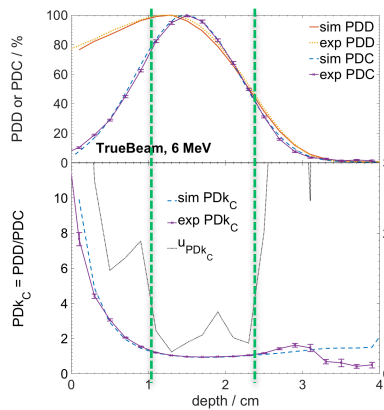
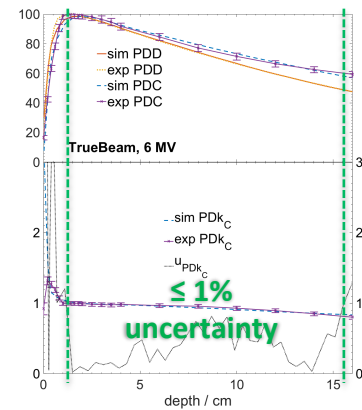


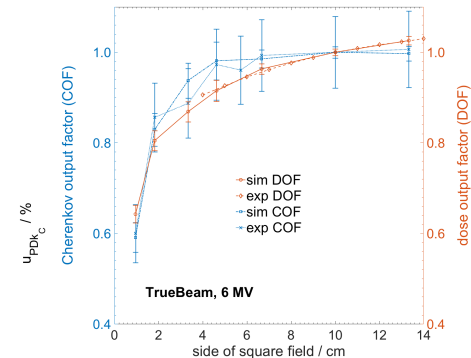
Electrons



Photons



Small fields



Dose Calibration

$$D(Q) = M(Q) N k_C^{\theta \pm \delta \theta}(Q), \quad (1)$$

Measurement Cherenkov-dose conversion

$$M = M_{\text{raw}}(SSD, x, y, z, FS) P_T, \quad (1a)$$

$$k_C^{\theta \pm \delta \theta} = \frac{\int_{\Delta}^{E_{\text{max}}} \Phi_E(E) L_{\Delta}(E) dE + \Phi_E(\Delta) S_{\text{col}}(\Delta) \Delta}{\int_{E_{\text{thr}}}^{E_{\text{max}}} \Phi_E^{\theta \pm \delta \theta}(E) S_{\text{CE}}(E, \epsilon) dE}, \quad (1b)$$

$$S_{\text{CE}}(E, \epsilon) = \frac{\alpha}{hc} \left(1 - \frac{1}{n(\epsilon)^2 \beta(E)^2} \right) \quad (1c)$$

Cherenkov power:
photons / eV / cm

