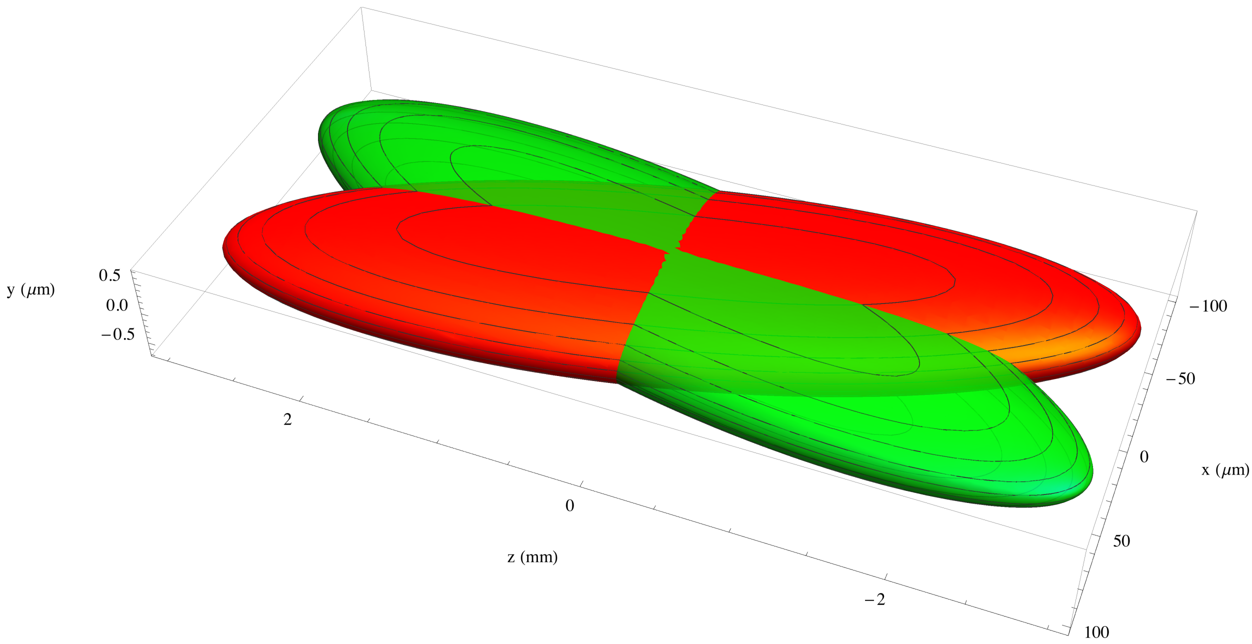

FIG. 1: Schematic view of Belle-I beam crossing at the interaction region. The spread of the z vertex distribution can be estimated as $\sigma_z = \frac{\sqrt{\epsilon_x \beta_x^*}}{\sqrt{2}\phi_x}$ where for Belle-I optics the horizontal emittance $\epsilon_x = 20 \times 10^{-6}$ mm, $\beta_x^* = 1200$ mm, and the crossing angle $\phi_x = 11$ mrad leading to expected $\sigma_z = 1$ cm.

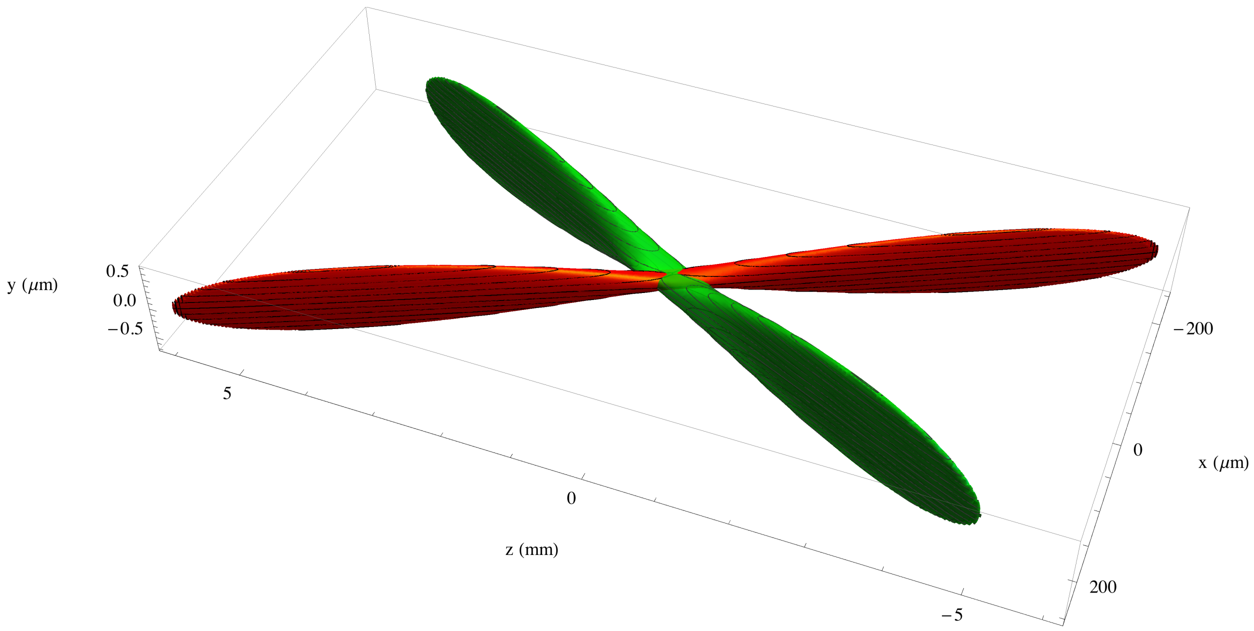

FIG. 2: Schematic view of Belle-II beam crossing at the interaction region. The spread of the z vertex distribution can be estimated as $\sigma_z = \frac{\sqrt{\epsilon_x \beta_x^*}}{\sqrt{2}\phi_x}$ where for Belle-II optics in phase 2 the horizontal emittance $\epsilon_x = 4 \times 10^{-6}$ mm, $\beta_x^* = 200$ mm, and the crossing angle $\phi_x = 41$ mrad leading to expected $\sigma_z = 0.049$ cm.

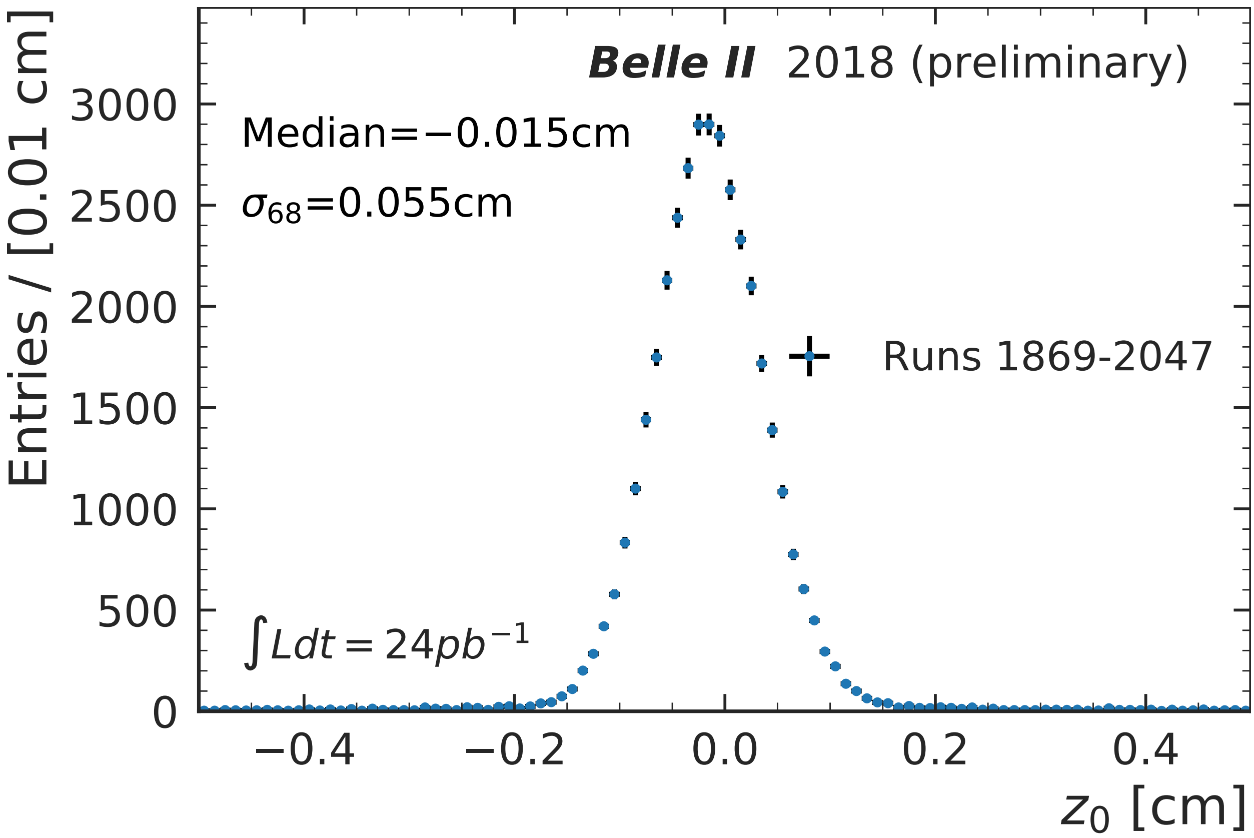

FIG. 3: Distribution of the longitudinal component of the interaction vertex estimated using z_0 parameter of single tracks originating from the interaction vertex. The plot is based on data collected in runs 1869 – 2047 in May 19th-21st 2018. The center of the distribution is estimated using its median. The spread of the distribution is estimated using half of the symmetric range around the median containing 68% of the distribution, σ_{68}. The spread of the distribution shown in the figure is not corrected for the estimated uncertainty in z_0 of 0.025 cm. When the z_0 resolution is subtracted in quadrature, the unfolded $\sigma_z = 0.049$ cm.