K_s^0 mass resolution

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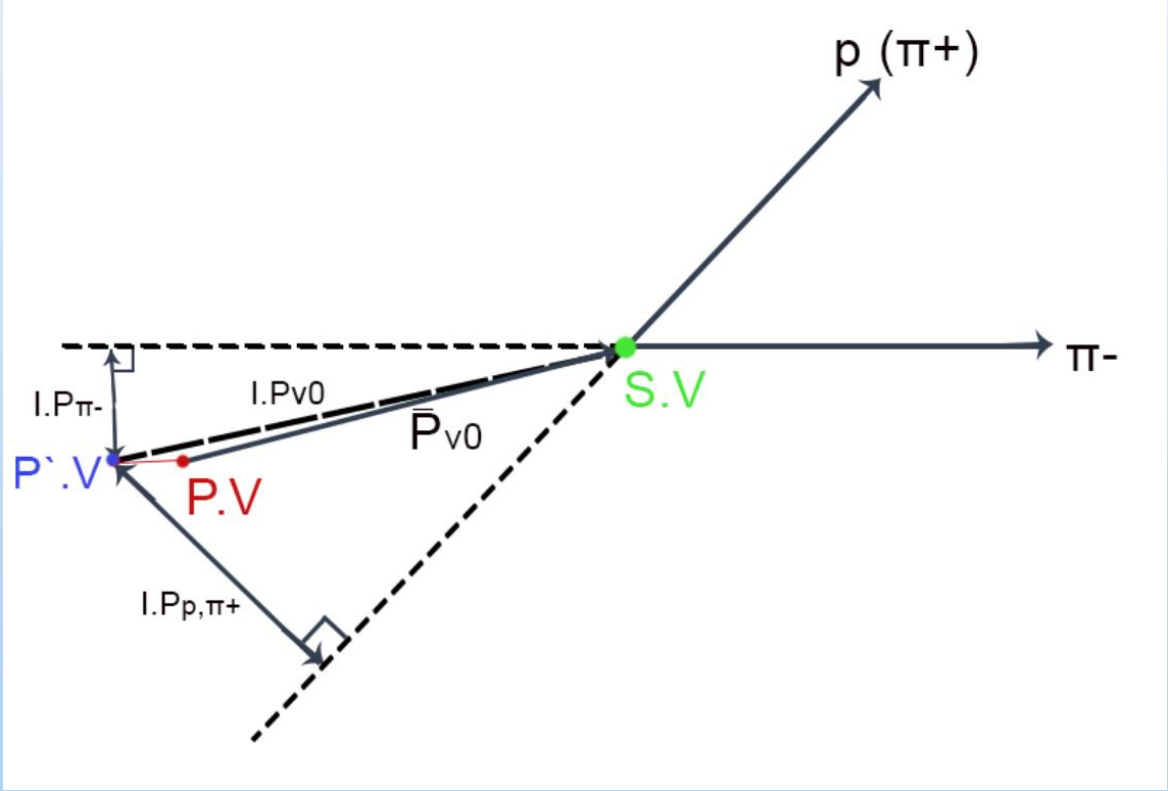
Parts of the presentation

- Problem description
- Research methods
- Results and conclusion

Problem description

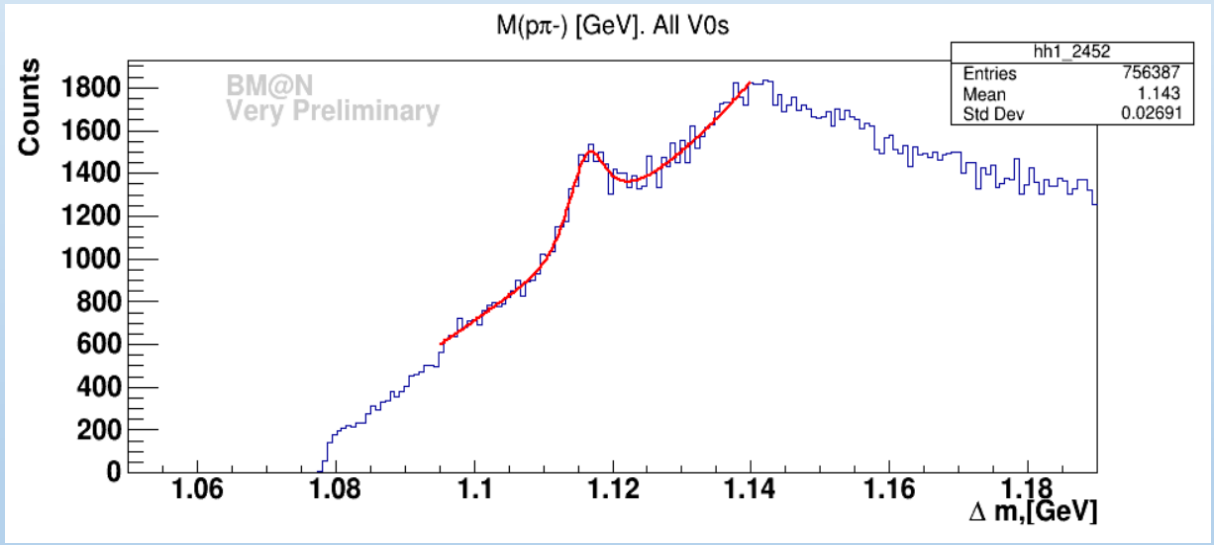
Why we are not seen K_s^0:

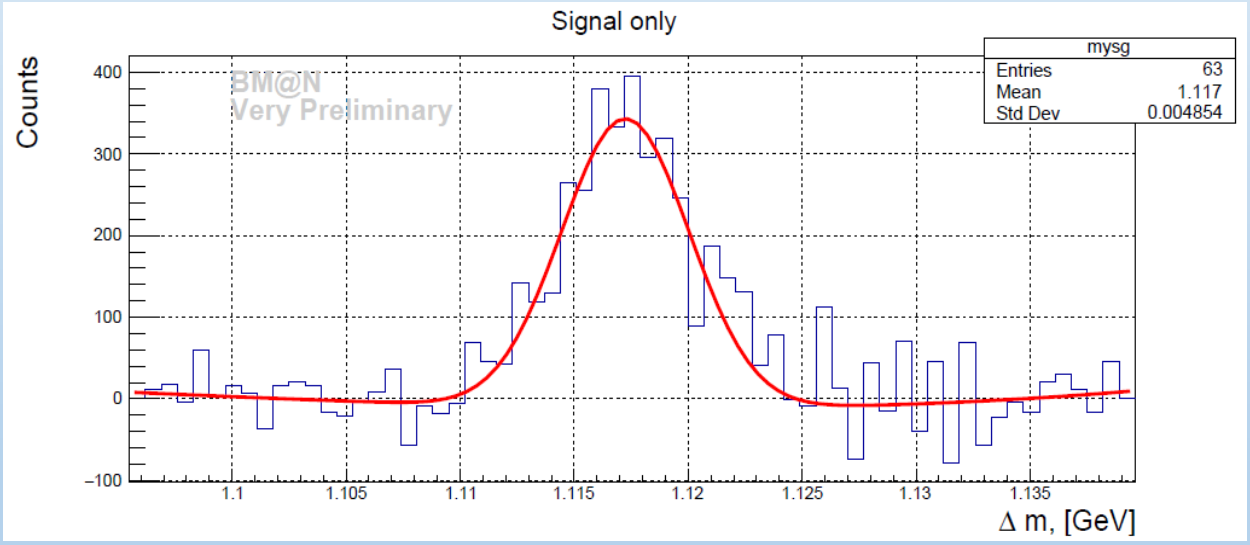
- Small spectrometer acceptance for K_s^0
- Small production section of K_s^0 at threshold of reaction



Real data in Run6

The fit reveal the width of the signal equal to 4.85 Mev



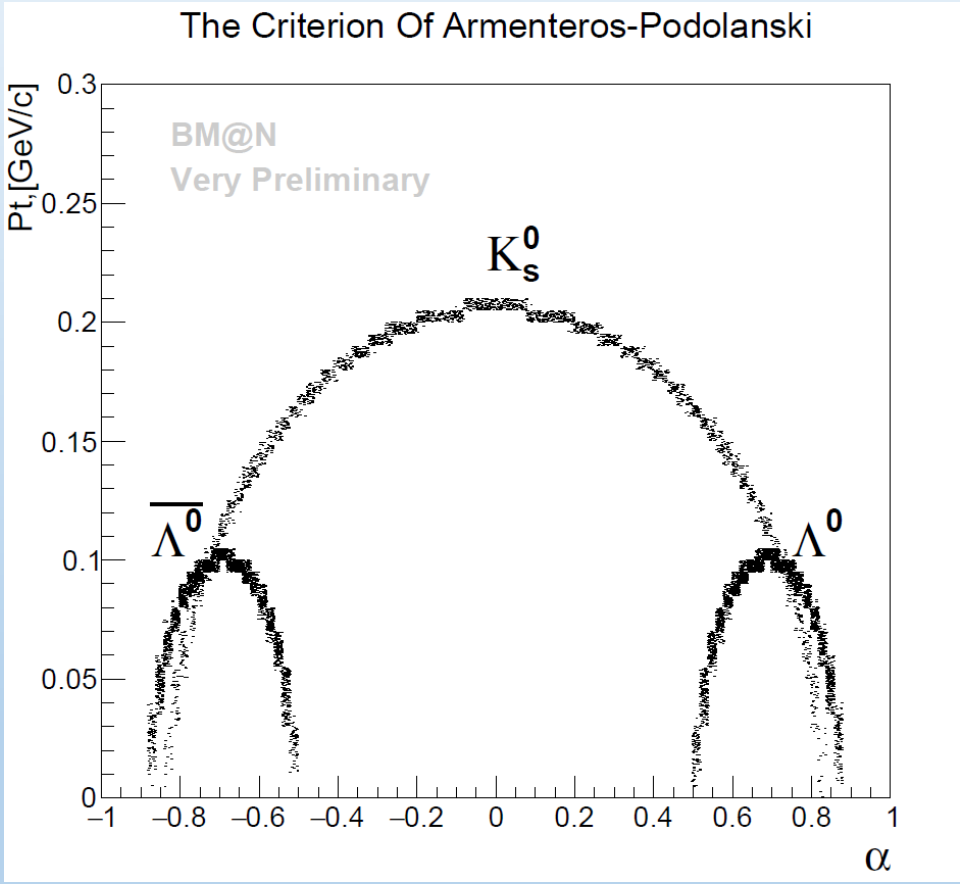


The Criterion of Armenteros-Podolanski

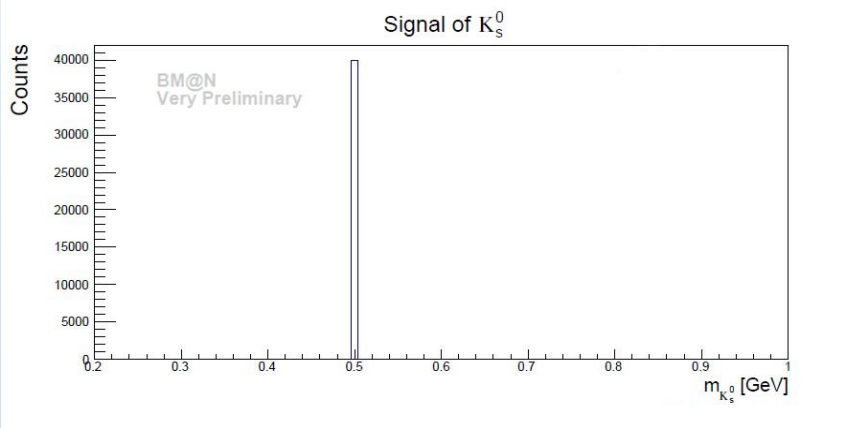
- P_t - transvers momentum of the products

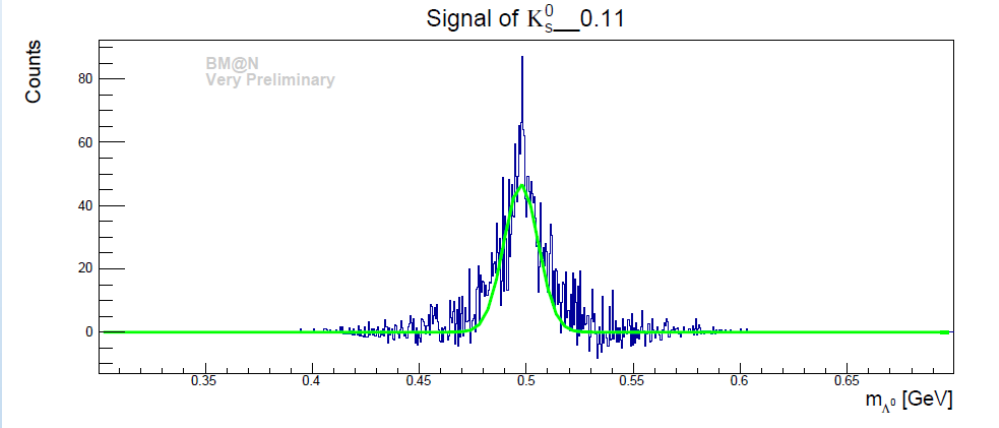
$$\alpha = \frac{P_l^+ - P_l^-}{P_l^+ + P_l^-}$$

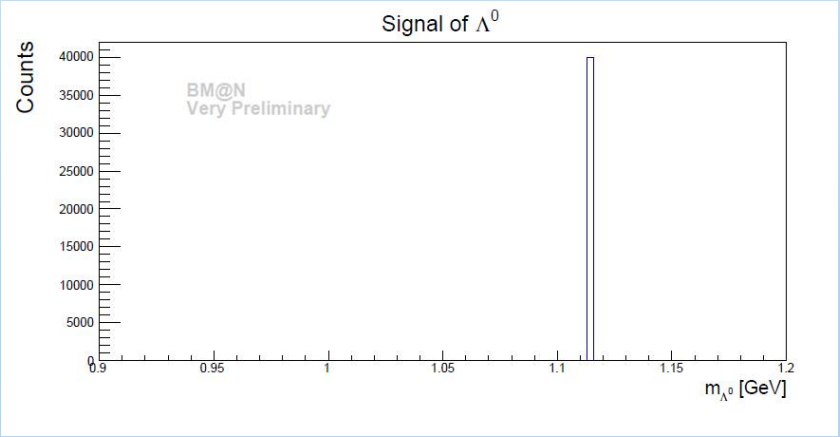
- P_l^+ - longitudinal momentum of positively charged particles
- P_l^- - longitudinal momentum of negatively charged particles

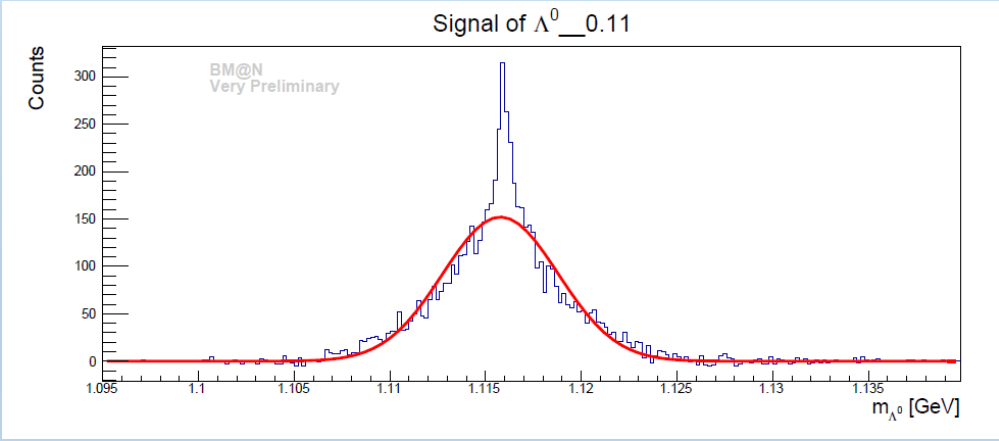


The resulting histogram





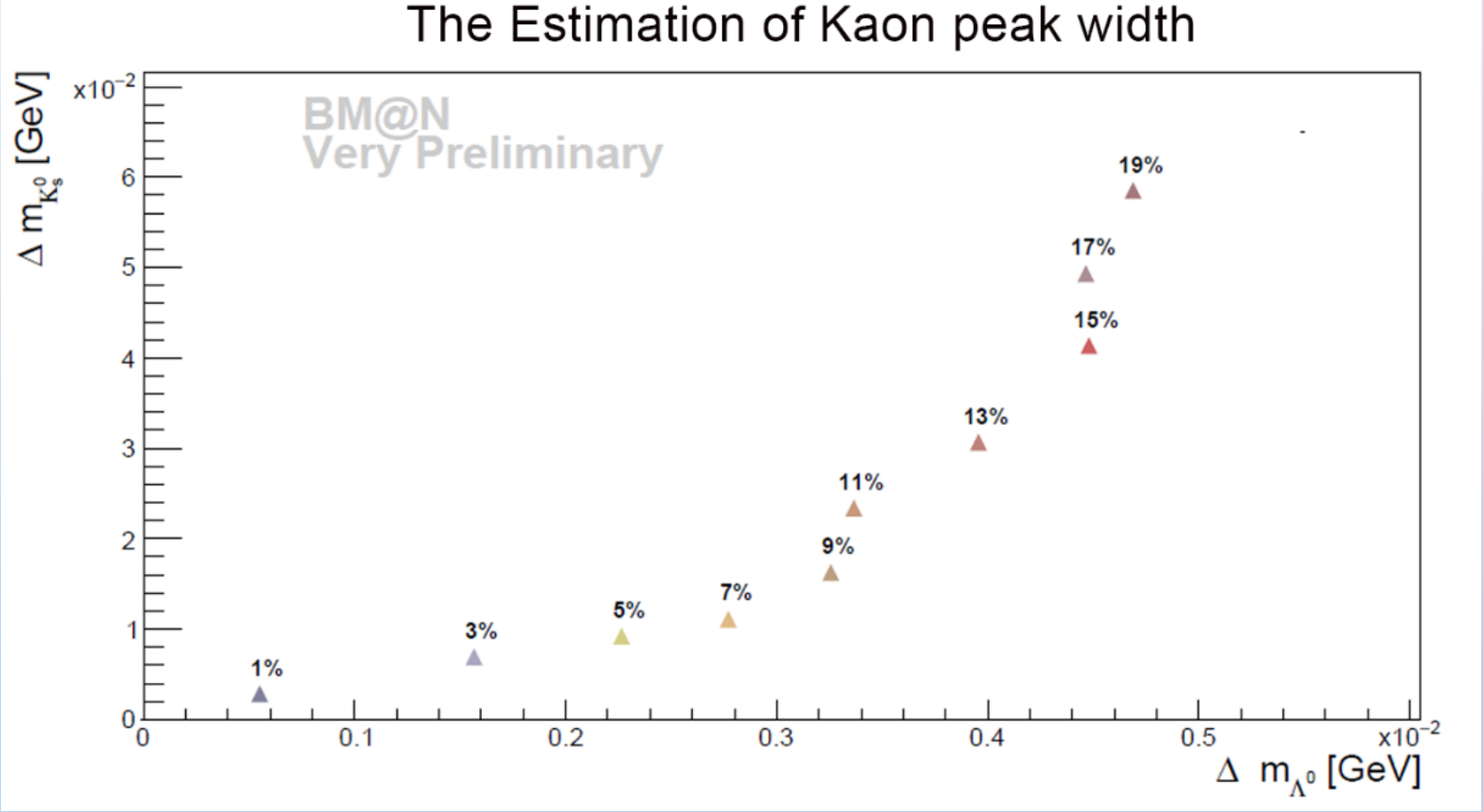


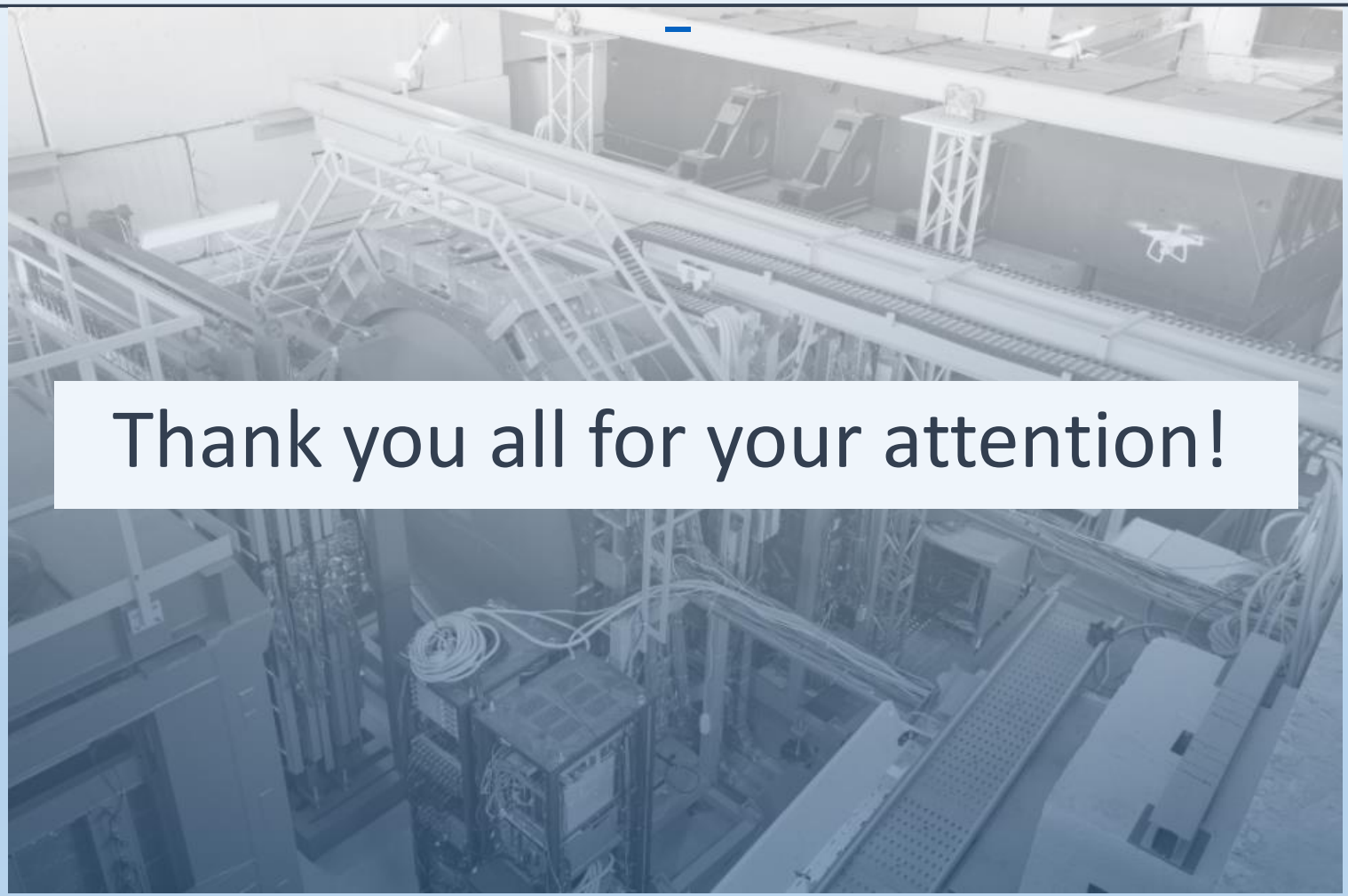


The resulting graph

- We may expect the width of the K_s^0 in the region of

  58.53 ± 1.22 MeV




Thank you all for your attention!