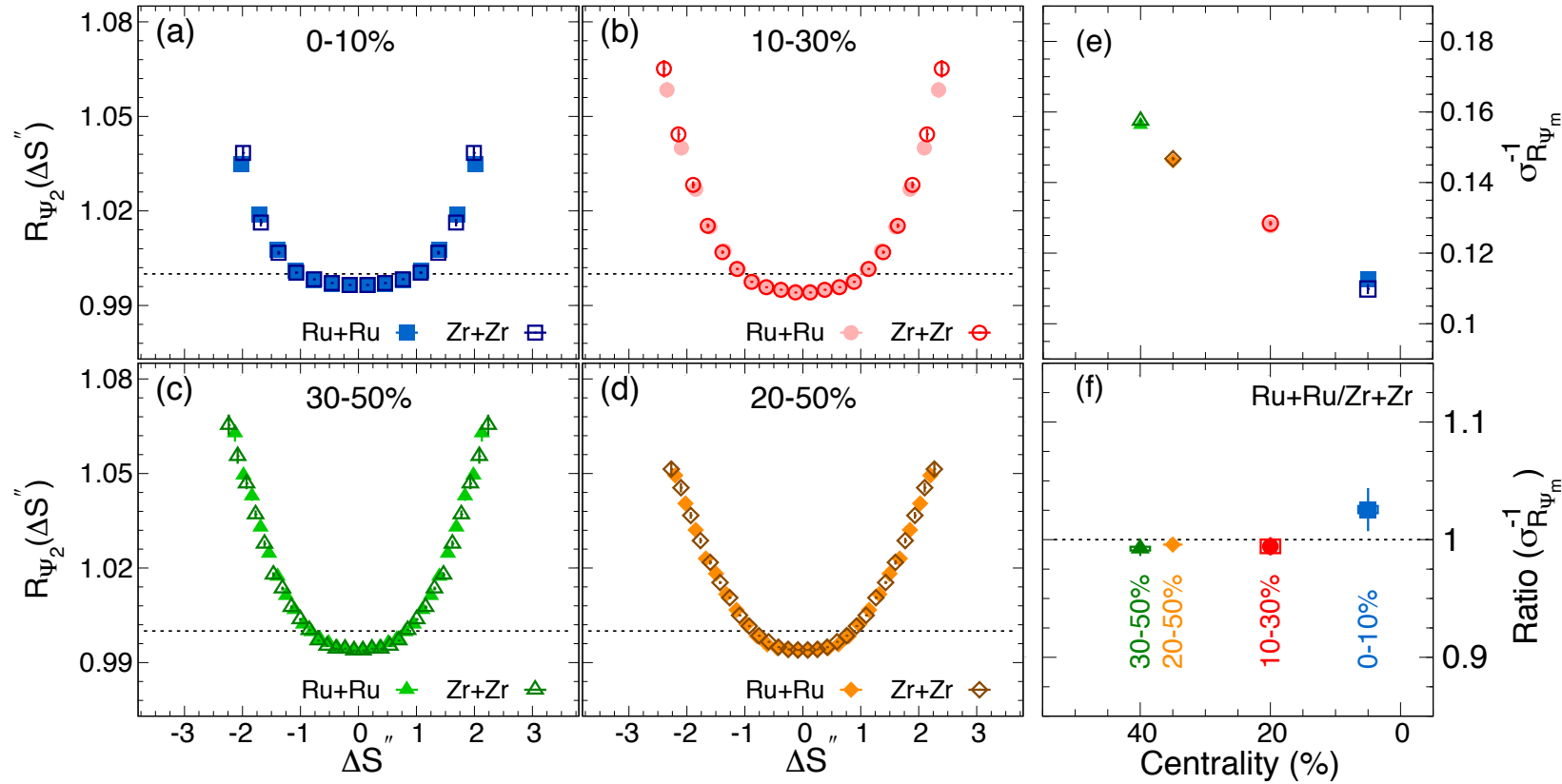


# Group 5: R Variable

STAR Isobar blind analysis,  $\sqrt{s_{NN}}=200$  GeV



$$R_{\Psi_2}(\Delta S) = C_{\Psi_2}(\Delta S) / C_{\Psi_2}^{\perp}(\Delta S),$$

$$C_{\Psi_2}(\Delta S) = \frac{N_{\text{real}}(\Delta S)}{N_{\text{shuffled}}(\Delta S)},$$

$$\Delta S = \frac{\sum_1^{n^+} w_i^+ \sin(\Delta\varphi_2)}{\sum_1^{n^+} w_i^+} - \frac{\sum_1^{n^-} w_i^- \sin(\Delta\varphi_2)}{\sum_1^{n^-} w_i^-},$$

Predefined CME signature:

$$1/\sigma_{R_{\Psi_2}}(\text{Ru} + \text{Ru}) > 1/\sigma_{R_{\Psi_2}}(\text{Zr} + \text{Zr})$$

Not seen

❖ No CME signature that satisfies the predefined criteria observed