

Figure 1. The run by run  $\langle v_x \rangle$  (top),  $\langle v_y \rangle$  (middle) and  $\langle \text{RefMult} \rangle$  (bottom) distributions for Ru+Ru (left) and Zr+Zr (right) collisions.

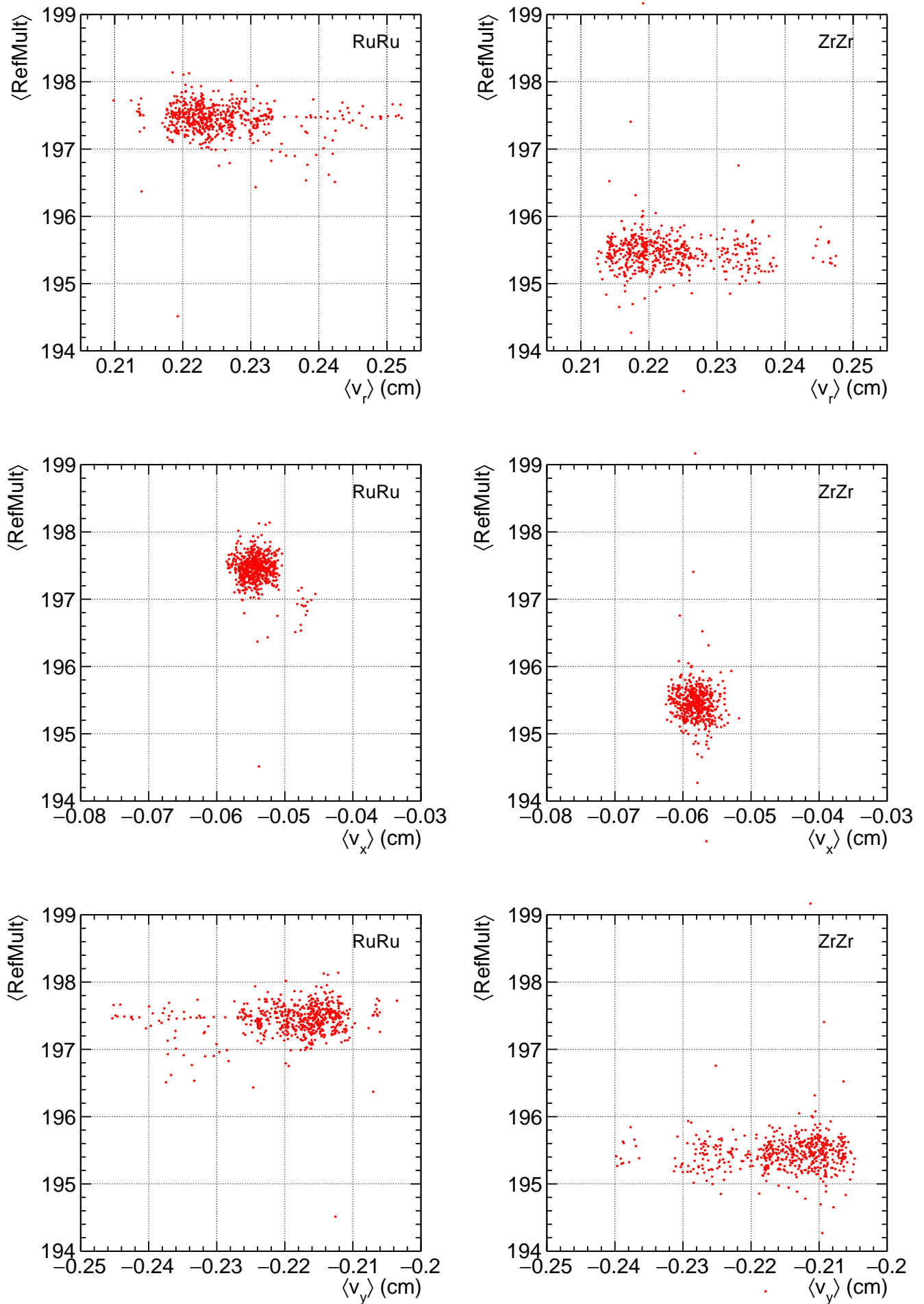


Figure 2.  $\langle \text{RefMult} \rangle$  vs  $\langle v_r \rangle$  (top),  $\langle v_x \rangle$  (middle),  $\langle v_y \rangle$  (bottom) for Ru+Ru (left) and Zr+Zr (right) collisions.

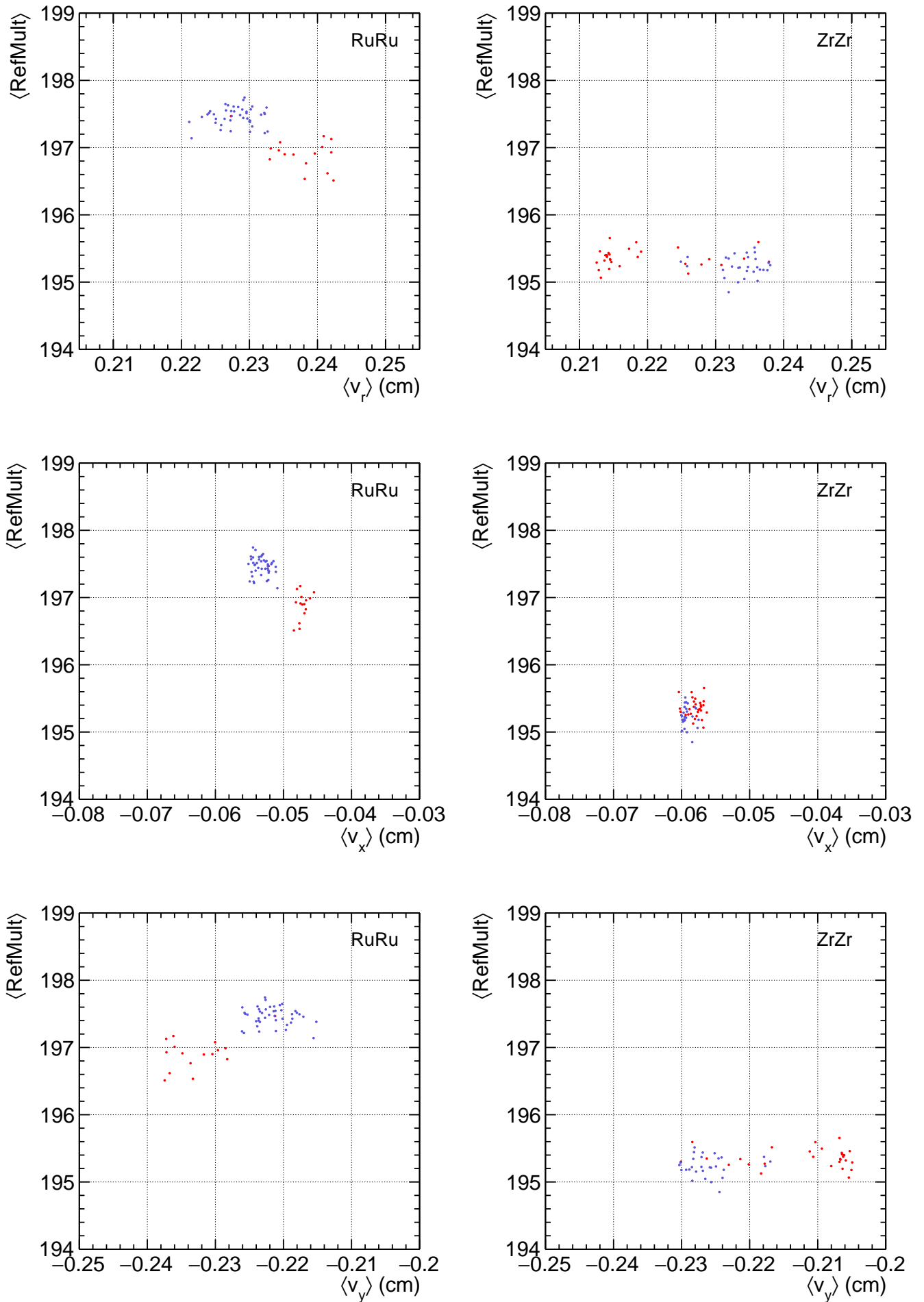


Figure 3.  $\langle \text{RefMult} \rangle$  vs  $\langle v_r \rangle$  (top),  $\langle v_x \rangle$  (middle),  $\langle v_y \rangle$  (bottom) for Ru+Ru (left) and Zr+Zr (right) collisions in two different run periods shown in Fig. 1.

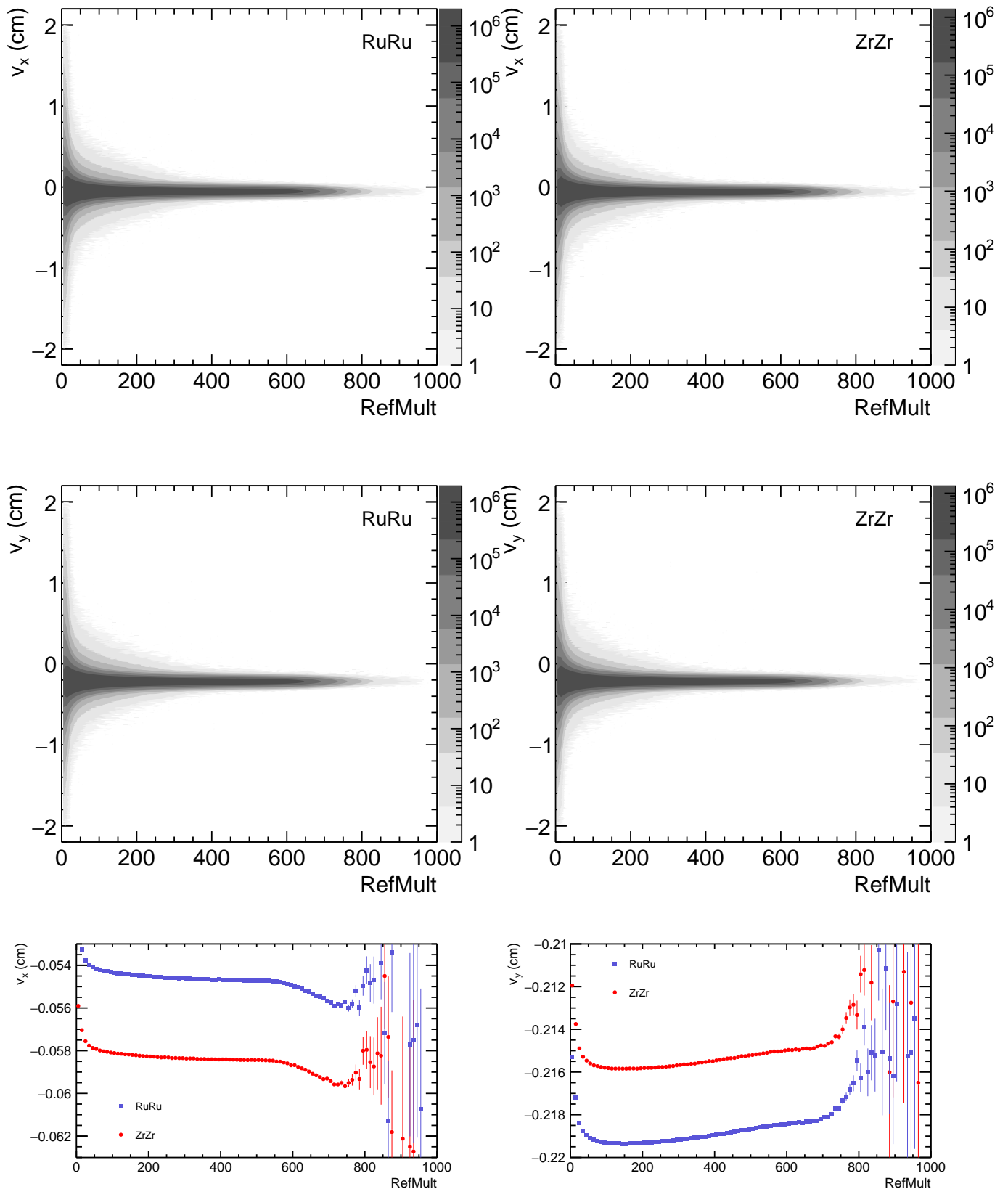


Figure 4. Event-by-event  $\langle \text{RefMult} \rangle$  vs  $\langle v_x \rangle$  (top),  $\langle v_y \rangle$  (middle) distributions for Ru+Ru (left) and Zr+Zr (right) collisions. Their profiles are shown in bottom panels.

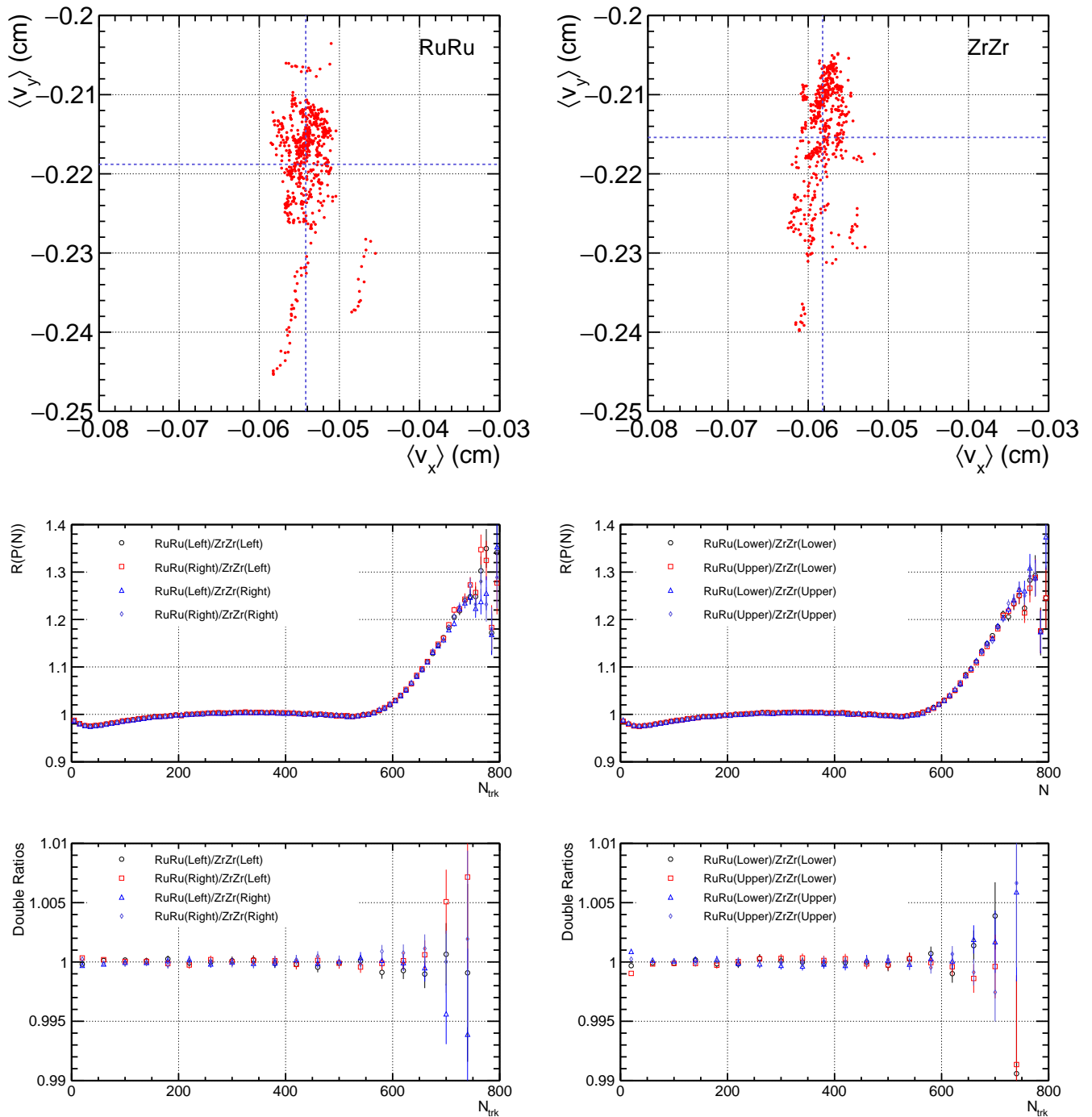


Figure 5. (Top) The run IDs are divided into two parts with  $\langle v_y \rangle$ :  $\langle v_y \rangle < \text{Mean}$  (Left) and  $\langle v_y \rangle > \text{Mean}$  (Right). The mean  $\langle v_y \rangle$  for RuRu is  $-0.2188$  cm and for ZrZr is  $-0.2151$  cm (See also Fig.1). (Middle) The multiplicity distribution ratios between RuRu and ZrZr with different  $\langle v_{x,y} \rangle$  groups. (Bottom) The double ratios of  $R(P(N))$  in middle panel to the  $R(P(N))$  of full events.