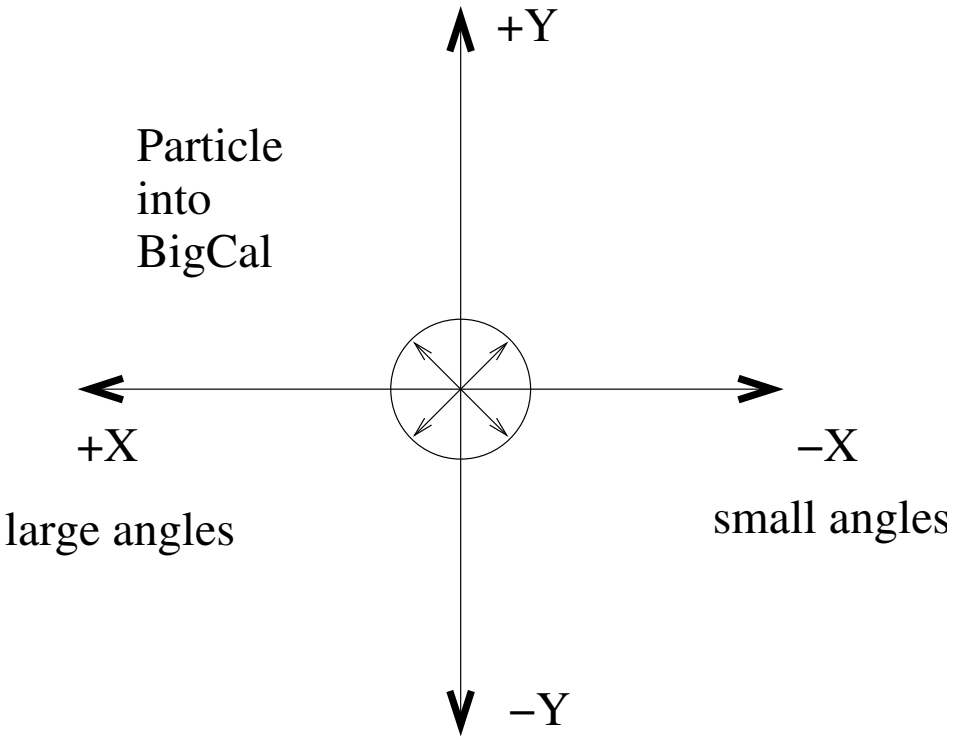The diagram below shows the coordinate system of Bigcal. The particle is coming from the target into BigCal. The positive X direction is in the horizontal plane and points to the large angles (where zero angle is along the beam direction going into the dump). The positive Y direction is in the vertical and points upwards. For BigCal the zero is at its center. Also the convention for numbering the blocks is the block 1,1 is at the largest -X and -Y position.