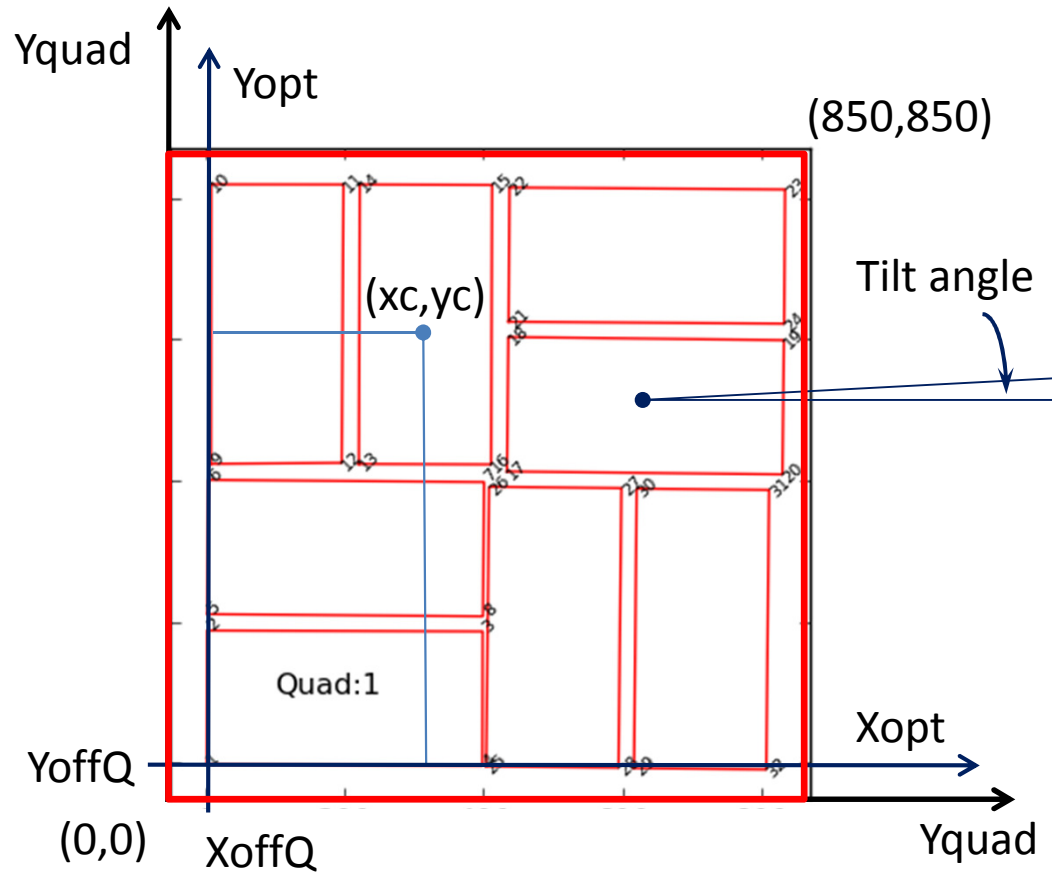


Geometry parameters for 2x1 sensors in quad

- **center:** (x_c, y_c) – 2x1 center in optical measurements frame
- **tilt:** Tilt angle of 2x1 in optical measurements frame
- **marg_gap_shift:**
XoffQ, YoffQ - offset of optical frame in quad frame (to keep all numbers positive)



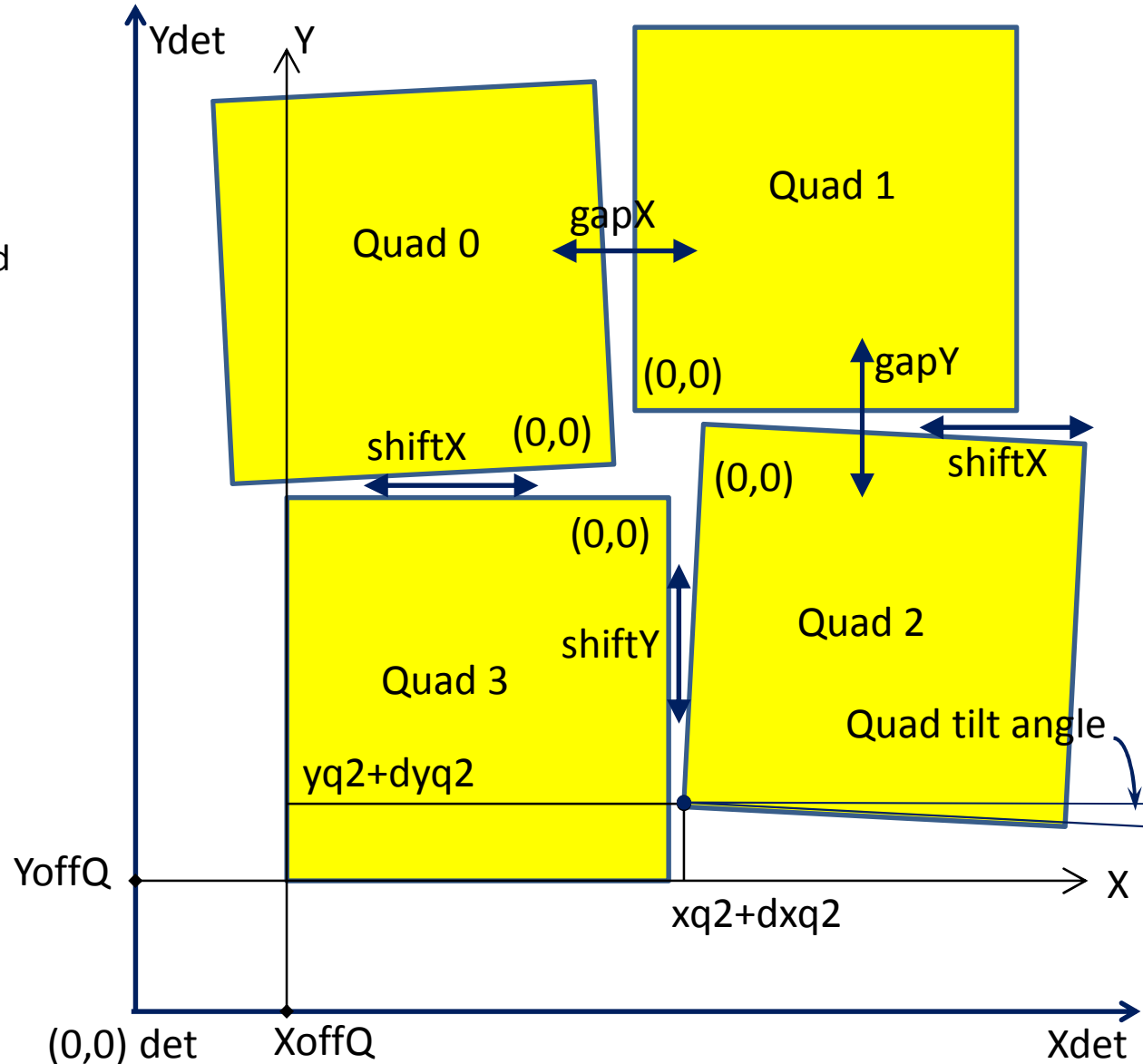
Positioning quads in detector

offset+offset_corr: $(x_{qn}+dz_{qn}, y_{qn}+dy_{qn})$ – quad position in (X,Y) frame

tilt_quad: Tilt angle of the quad in (X,Y) frame

marg_gap_shift:

- X_{offD}, Y_{offD} - offset of the quad frame in the detector frame (to keep all numbers positive)
- $gapX, gapY$ – adjust space between quads in X and Y directions
- $shiftX, shiftY$ – adjust shift between quads in X and Y directions



Geometry parameters for 2x1 sensors in CSPAD

- **center_global:** (x_c, y_c)
– 2x1 center in detector frame (to keep all numbers positive)
- **tilt:** Tilt angle of 2x1 in optical measurements frame

