

# Vertex CDR – status

## 4 Vertex Detector

### 4.1 Performance Requirements and Detector Challenges

Z-pole?

### 4.2 Baseline Design

### 4.3 Detector Performance Studies

### 4.4 Beam-Induced Background in the Vertex Detector

### 4.5 Sensor Technology Options

### 4.6 Mechanics and Integration

### 4.7 Critical R&D

#### 4.7.1 Current R&D Activities

#### 4.7.2 Future R&D

8 Cost estimation?

### 4.8 Summary

### References

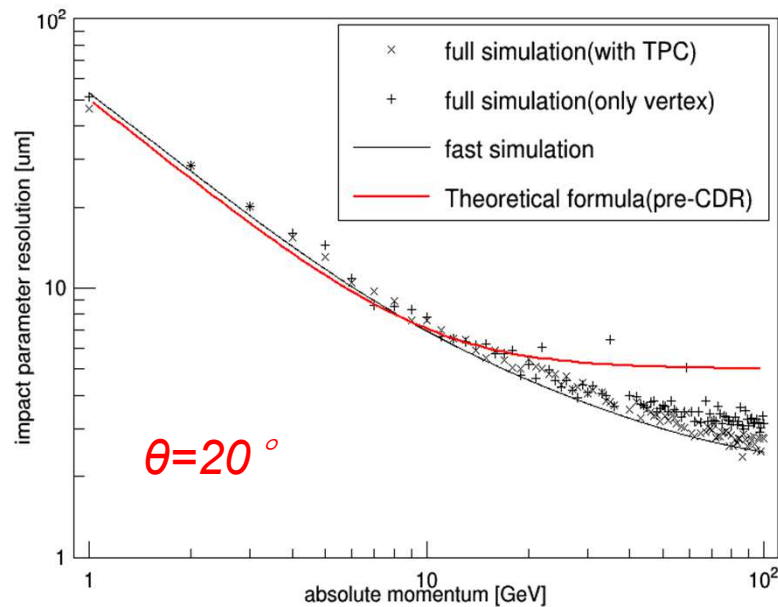
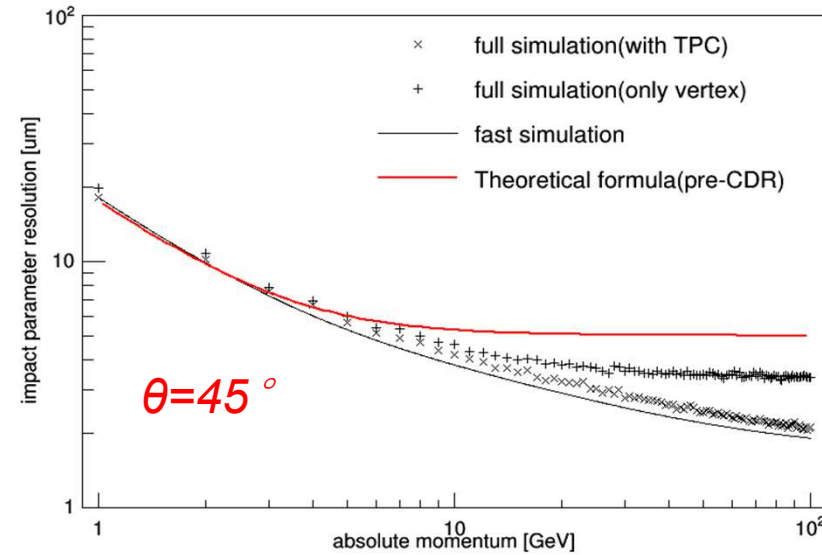
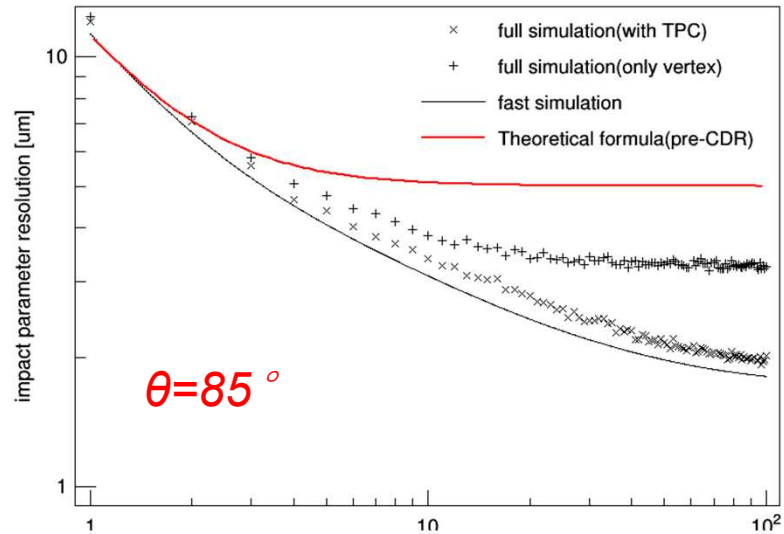
#### Yunpeng Lu

- CPS and SOI MPW runs, results
- pixel size shrinking, 3D connection...
- radiation tolerance

#### Zhigang Wu

- parameters already checked for both full and fast simulation
- VTX L2:  $\sigma_{sp}$  2.8→6 $\mu$ m
- **B=3T?**
- performance simulation done within one week
- background?

# Impact parameter resolution — Zhigang Wu



- \* Full simulation: CEPC\_v1
- $B=3.5T$
- Beam-pipe  $X=0.14\%X_0$