1. Construct \hat{A}^{CSC} \hat{A}^{CSC} . colPtrcoarseOffsets coarseCounts 5 5 3. Modified 9 0 5 \hat{A}^{CSC} .row 2. Histogram prefix sum 9 12 14 3 4. Generate coarse level (reorder) coarseCol2 5 2 3 7 0 0 3 5 0 5 $coarseVal \ \ |A_{11}B_{10}|A_{11}B_{12}|A_{12}B_{20}|A_{15}B_{51}|A_{15}B_{53}|A_{11}B_{15}|A_{11}B_{17}|A_{12}B_{27}|A_{15}B_{55}|A_{21}B_{10}|A_{21}B_{12}|A_{24}B_{43}|A_{21}B_{15}|A_{21}B_{17}|A_{17}B_{17}|A_{18}B_{17}|A_{18}B_{18}A_{18}B_{$ Coarse chunk 0 Coarse chunk 0 Coarse chunk 1 Coarse chunk 1

Row 1 of C

0

Row 2 of C