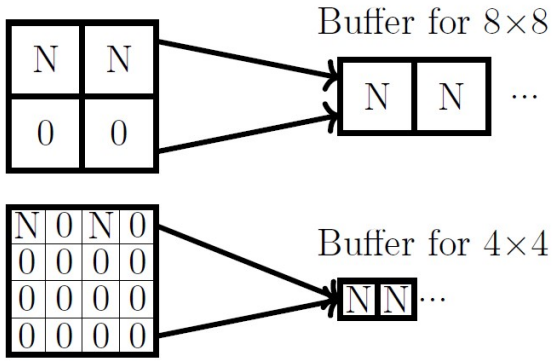
Technische Universität Berlin

Optimizing HEVC Inverse Transform for GPU Execution

- Objective: improve the overall performance of GPU execution for the HEVC Inverse Transform (IT) algorithm.
- General tasks:
  - compress the input data of HEVC IT by eliminating zero coefficients in transform blocks
  - implement an efficient IT kernel for the compressed input data representation



- Required skills: C/C++, CUDA/OpenCL programming
- Desired skills: image processing and/or video coding background
- Reference: *B. Wang, et al. "An Optimized Parallel IDCT on Graphics Processing Units," In Proceedings of the 18th International Conference on Parallel Processing Workshops, pages 155–164, 2013.*
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AES Embedded Systems Architecture