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| Memory Type | Constant Memory | Texture Memory |
| Description | * Read-Only * Cached on chip * 64 kB on device * Optimized when half the warp of threads read data from **same** location * To avoid data traffic, each thread must either receive the data in a half-warp broadcast or retrieve the data from constant memory cache. | * Read-Only * Cached on chip * Typically used for patterns where there is typically high Spatial Locality * Optimized for 2D spatial locality |
| Advantages | * Can be as fast as registers if half the warp of threads read data from same location * High temporal locality | * Linear interpolation of adjacent data values * Automatic boundary handling * Automatic Normalization of data and/or array indices * High spatial locality |
| Disadvantages | * Read-only * Any reads in warp past half warp size are read serially, meaning greatly increasing read time. | * Read-only |