



SITCON '21

EXECUTION MODEL



Handwars



Thread

Executed By



Scalar Processor

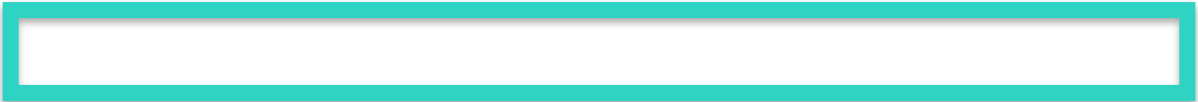
```
• _ _ g1obal _ _ void name(..);
```

```
name<<grid_size,block_size>>>(...);
```

```
1  #define LEN 1000
2  __global__ void gpu_func(int add, int *arr) {
3      arr[0] += add;
4  }
5
6  int main(int argc, char *argv[]) {
7      int cpu_arr[LEN];
8      int *gpu_arr;
9      cudaMalloc(&gpu_arr, sizeof(int) * LEN);
10     cudaMemcpy(gpu_arr, cpu_arr, sizeof(int) * LEN, cudaMemcpyHostToDevice);
11     gpu_func<<<10, 100>>>(87, gpu_arr);
12     cudaMemcpy(cpu_arr, gpu_arr, sizeof(int) * LEN, cudaMemcpyDeviceToHost);
13 }
14
```



DECLARATION & EXCLUSION







Block



Executed By





Grid



GPU Device

Multiprocessor (MP)





Block