



SITCON '21

SHARE MEMORY

- 相同 block 下的 threads 可以存取到同樣區塊的shared memory
- 速度約等於registers，例外：Bank conflict
- 資料共享
- Ex: Matrix multiplication

Total amount of shared memory per bLock: 49152 bytes

Total shared memory per multiprocessor: 102400 bytes

$$\begin{bmatrix} a_{11} & a_{12} & a_{13} & \cdots & a_{1n} \\ a_{21} & a_{22} & a_{23} & \cdots & a_{2n} \\ a_{31} & a_{32} & a_{33} & \cdots & a_{3n} \\ \vdots & \vdots & \vdots & \boxed{} & \vdots \\ a_{m1} & a_{m2} & a_{m3} & \cdots & a_{mn} \end{bmatrix}_{m \times n}$$









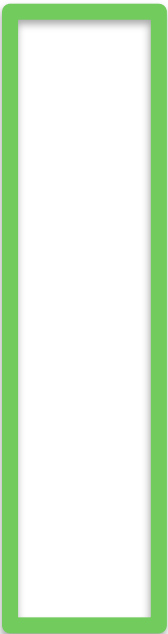


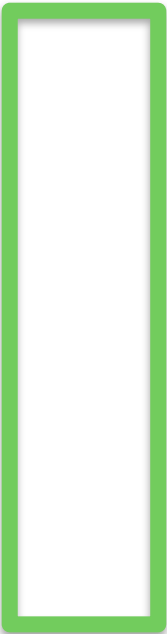


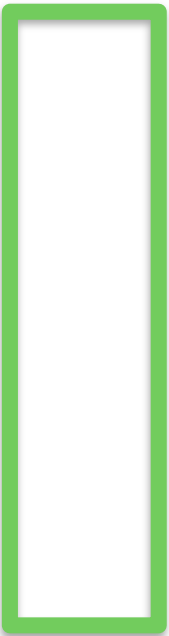


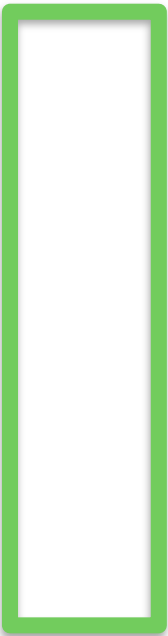














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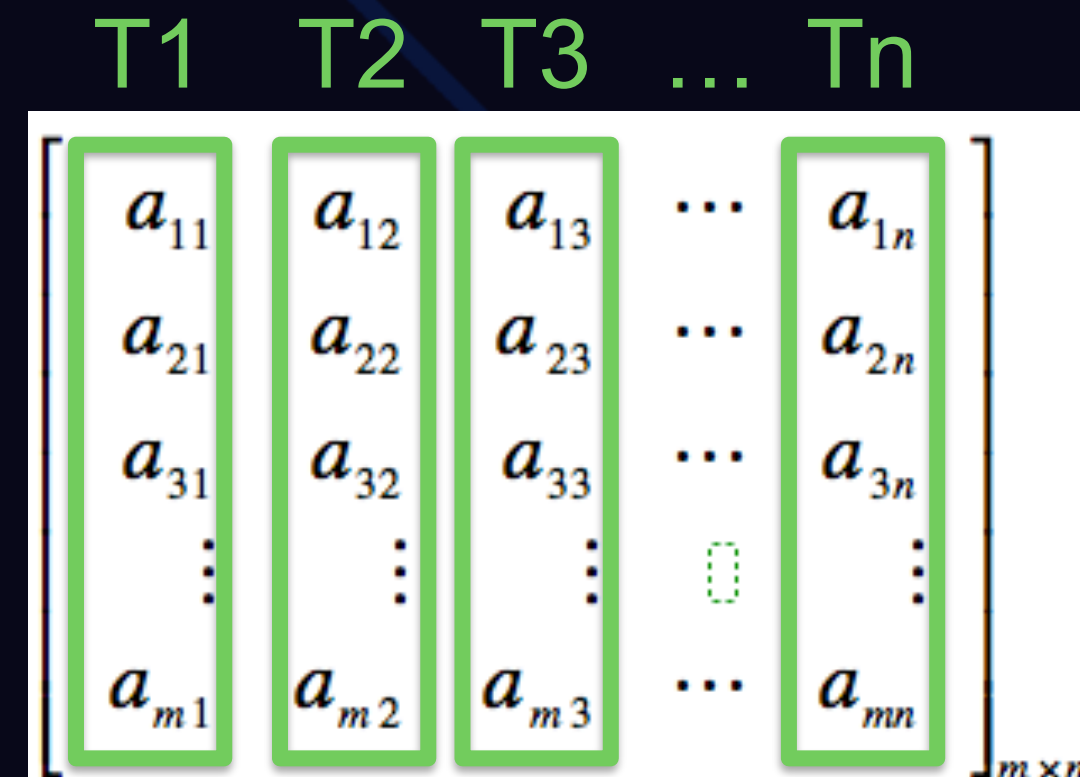
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SHARED MEMORY

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Total shared memory per multiprocessor: 102400 bytes

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GLOBAL MEMORY

Total amount of global memory:

7982 MBytes (8370061312 bytes)

- 容量大、速度慢
- 與CPU的溝通橋樑

規格

NVIDIA CUDA 核心	5888
加速時脈	1.73 GHz
記憶體大小	8 GB
記憶體速度	GDDR6

檢視完整規格