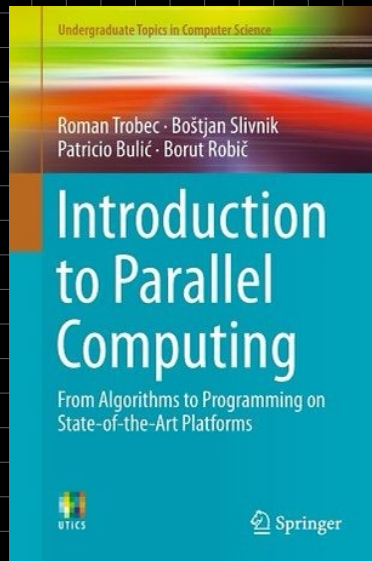


VPSA

pa3cio@fri.uni-lj.si

dlavor.sluga@fri.uni-lj.si

rok.cesnovar@fri.uni-lj.si



→ PDF je na voljo
→ tiskani vodič do
vžginitici

Izpiti

→ ~~3 roki za pisne vpite~~

→ razpisani bodo posebni roki za
ustne vpite → v SUDISU

rok = dan

→ suoty euep ro do do 3
termini

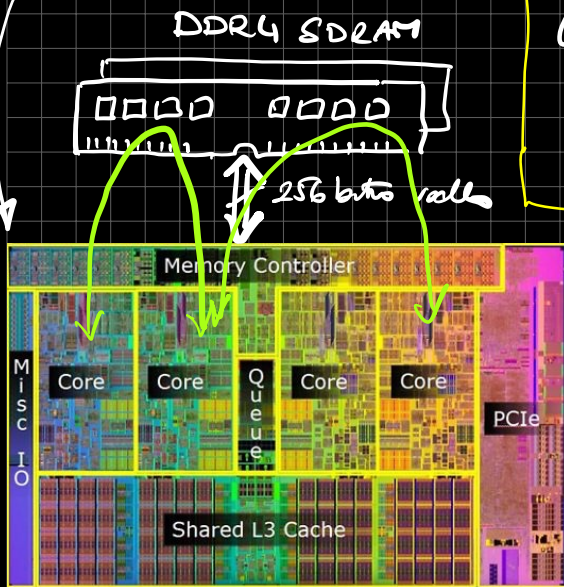
||
60 minutes slot

PARALELNI RACUNALNIKI

PARALELNI RAC.
S SKUPNIM
POMNILNIKOM

PORAZDEJENI
RACUNALNIKI

GRAFICNE
PROCESNE
ENOTE

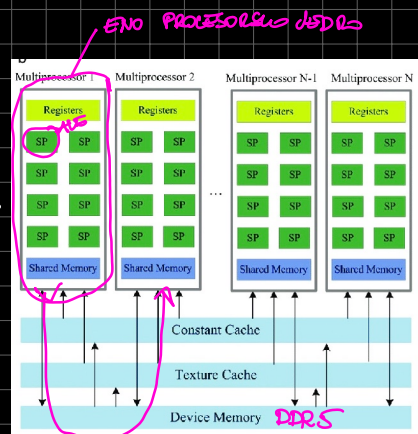


~ 6
→ večje število popolnoma
enakih proc. jedr
(homogeni)

→ komunikacija: preko RAM-a
(LOAD/STORE)

→ simultaneje dostopa
do pomnilnika

NITENJE
→ programski jezik C
+ pthreads, OpenMP

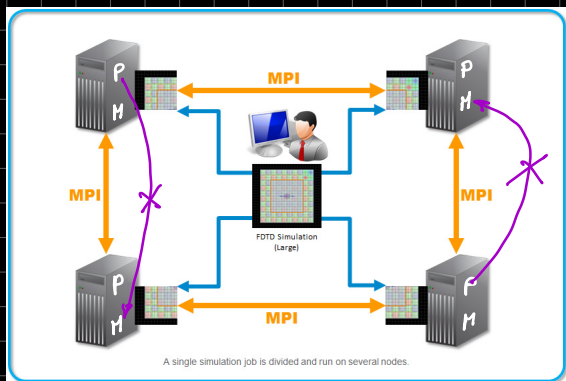


↓
programski jezik in
opodoba OpenCL

- VEČJEDRNI
(Multi core)

↓
MNOGOJEDRNI
SISTEMI

Many-core



→ veče štelo locenih
procesorov

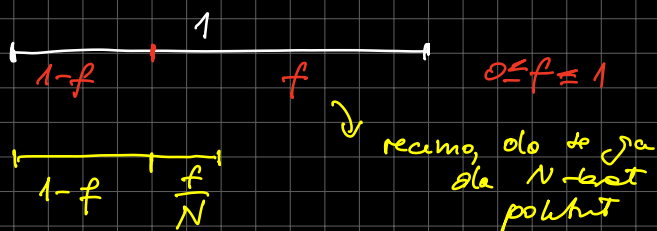
Komunikacija: IZMENJAVNA SPOROČILA

→ programer v C + MPI

(Message Passing Interface)

Send/Receive

* Andrelna zbir



$$S = \frac{1}{(1-f) + \frac{f}{N}}$$

a) $f = 0.5$, $N \Rightarrow 100$

$$S = \frac{1}{(1-0.5) + \frac{0.5}{100}} = \frac{1}{0.5 + 0.005}$$

$$= \frac{1}{0.505} \approx 2$$

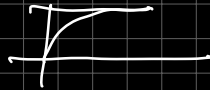
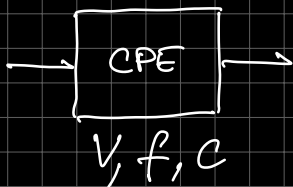
b) $f = 0.9$

$$S = \frac{1}{(1-0.9) + \frac{0.9}{100}} = \frac{1}{0.1 + 0.009}$$

$$= \frac{1}{0.109} \approx 10$$

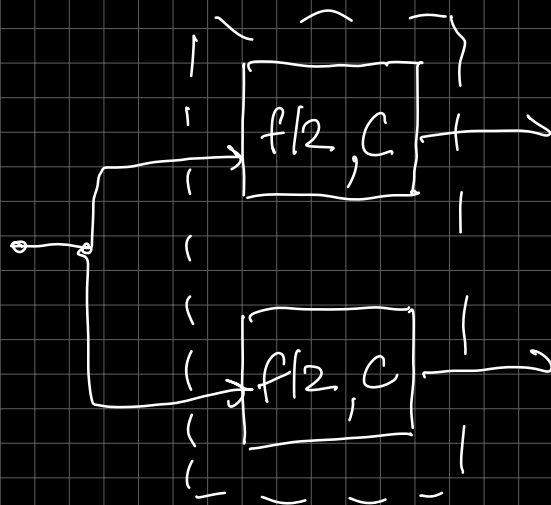
Zalog: pu bi' pol paralelni; ce
moj kndah/ type?

↳ ENERGIJA



$$P \sim V^2 \cdot f \cdot C$$





$0.6V$

$$P' = (0.6V)^2 \cdot \frac{f}{2} \cdot 2C$$

$$= 0.6^2 \cdot \underbrace{V^2 \cdot f \cdot C}_P$$

$$P' = 0.36 \cdot P$$