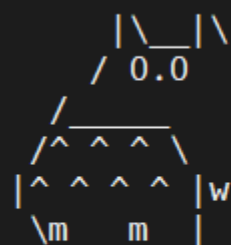# ML Chip HW3

312591037 NYCU ICST

葉舜良

```
Core_13 get packetsrc_id:13, dest_id:3, num_of_flits:13
Core_1 receive tail, data:0.723958
Core_11 receive tail, data:0.099996
Core_15 receive tail, data:0.620142
Core_8 receive tail, data:0.559162
Core_5 receive tail, data:0.370374
Core_4 receive tail, data:0.022716
Core_3 receive tail, data:0.415352
Core_14 receive tail, data:0.115991
Core_0 receive tail, data:0.402228
Core_12 receive tail, data:0.364468
Core_10 receive tail, data:0.475418


    ============================
    +                          +        |\__|\
    +                          +       / 0.0   |
    +    Congratulations !!     +      /        |
    +                          +     /_____    |
    +    Simulation completed   +    /^ ^ ^ \   |
    +    at 331 th cycle        +   |^ ^ ^ ^  |w|
    +                          +    \m___m__|_|
    ============================

Info: /OSCI/SystemC: Simulation stopped by user.
10:34 mlchip126@ee21[~/HW3_demo/hw3]$
```

Simulation specification

- Routing algorithm: X-Y algorithm

- Scheme: Wormhole

- Implementation: Algorithmic

- Input buffer size: 1 flit

- Flow control: Ack-Nack

- Virtual Channel: N/A

Faced problems:

- No idea that systemC can dump waveform trace file, I think TA should lecture a course about ways of dumping the waveform within systemC

- Debugging such routers, waveform seems necessary to extract the needed information for debugging

- Making simple example is better at debugging such complicated system. For doing that, I think the PE provided should not be encoded.

References:

- **On-Chip Networks Second Edition**
- **Principles and Practices of Interconnection Networks**