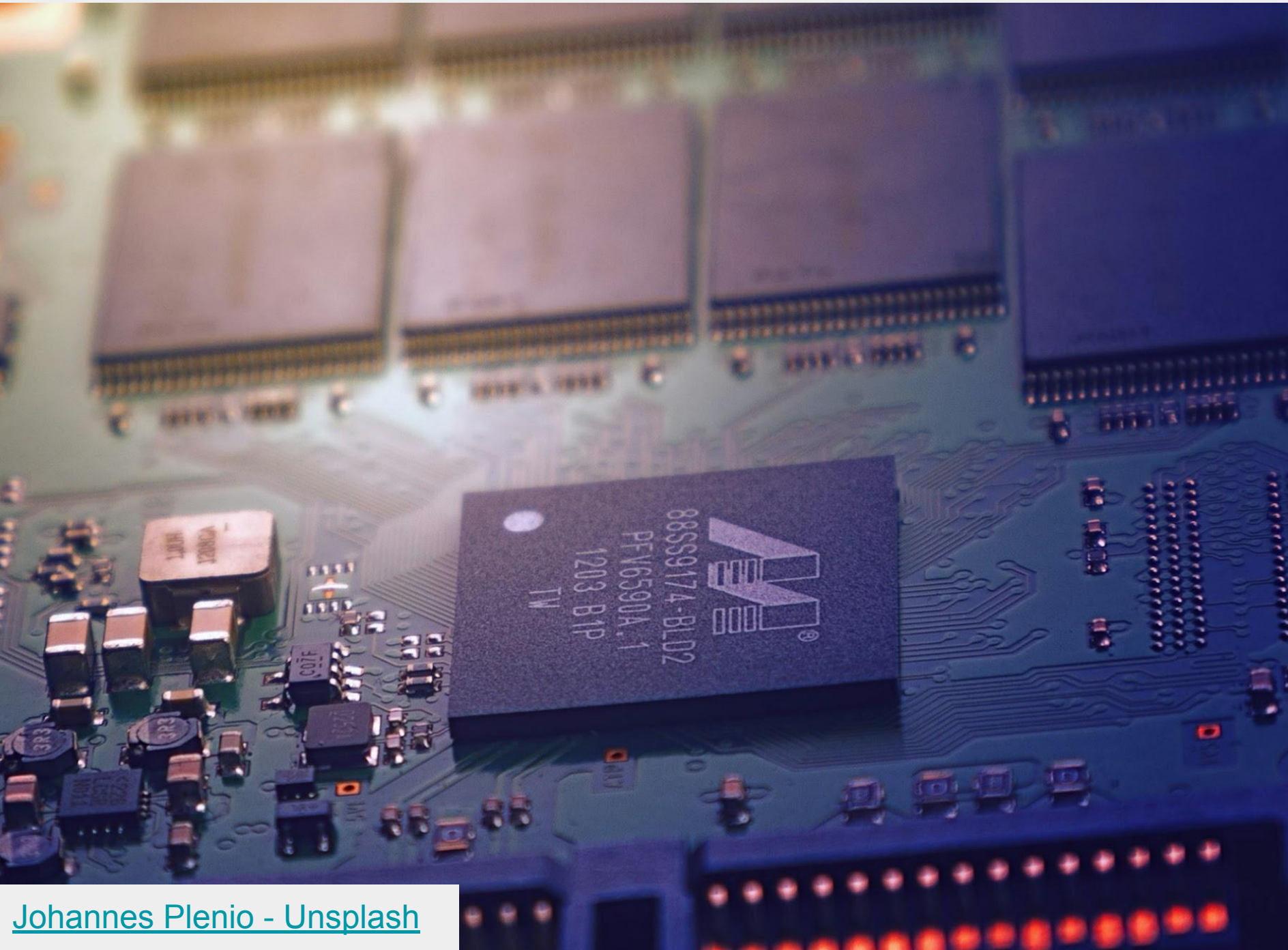# Processes

Adapted from materials by Dr. Carrier

What is a process?

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Process = The execution of a program/command

Viewing processes

`ps` - list active processes

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`ps -f` - for more info

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`top` for an interactive view

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`top` for an interactive view

Terms:

PID - Process ID

PPID - Parent process ID
    (what started this process?)

Foreground and background

We typically run things in the foreground

    This takes over the shell until the process finishes

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`command &`

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To suspend a running process:

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To run something in the background:
`command &`

To suspend a running process: `Ctrl + Z`

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To run something in the background:
`command &`

To suspend a running process: `Ctrl + Z`

To resume suspended process in foreground:

To resume suspended process in background:

Foreground and background

We typically run things in the foreground

This takes over the shell until the process finishes

To run something in the background:
`command &`

To suspend a running process: `Ctrl + Z`

To resume suspended process in foreground: `fg`

To resume suspended process in background: `bg`

Foreground and background

We typically run things in the foreground

    This takes over the shell until the process finishes

To run something in the background:
`command &`

To suspend a running process: `Ctrl + Z`

To resume suspended process in foreground: `fg`

To resume suspended process in background: `bg`

`jobs` to show foreground, background, and suspended processes

Stopping a process

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`Ctrl + C` to stop the process in the foreground

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`Ctrl + C` to stop the process in the foreground

Stopping a process in background / suspended:

`kill pid` (attempts to stop process gracefully)

`kill -9 pid` (force kill)