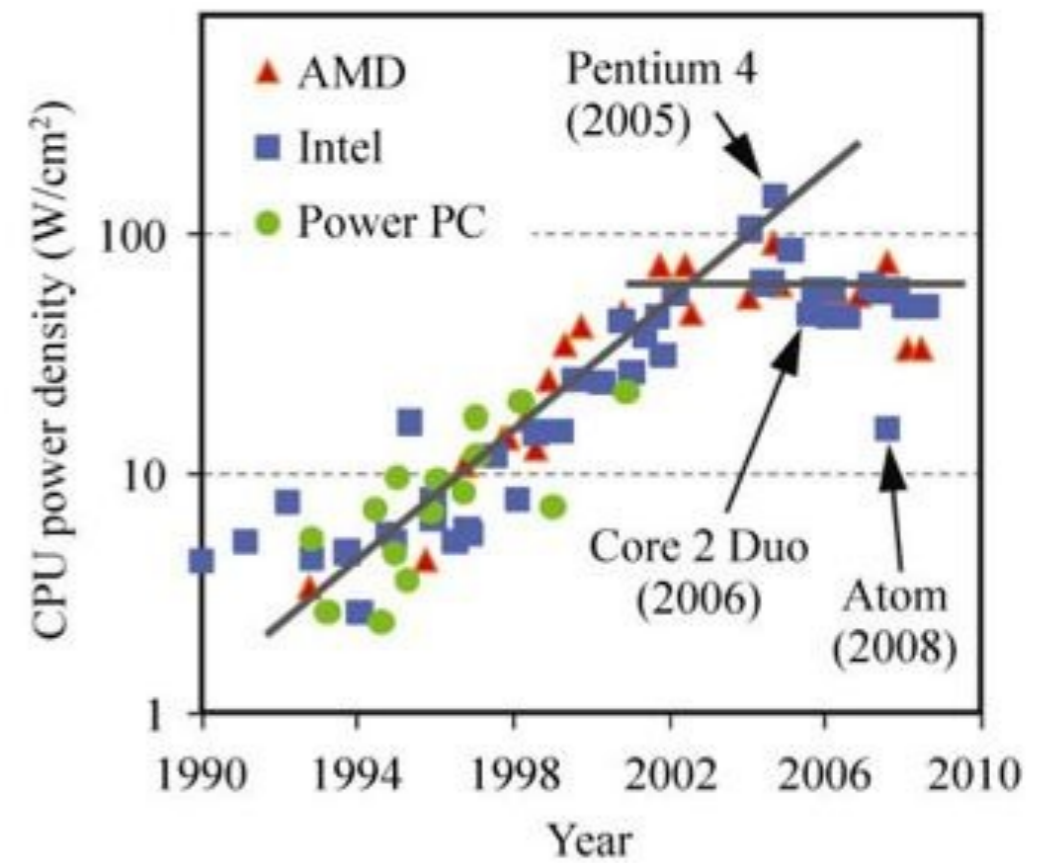
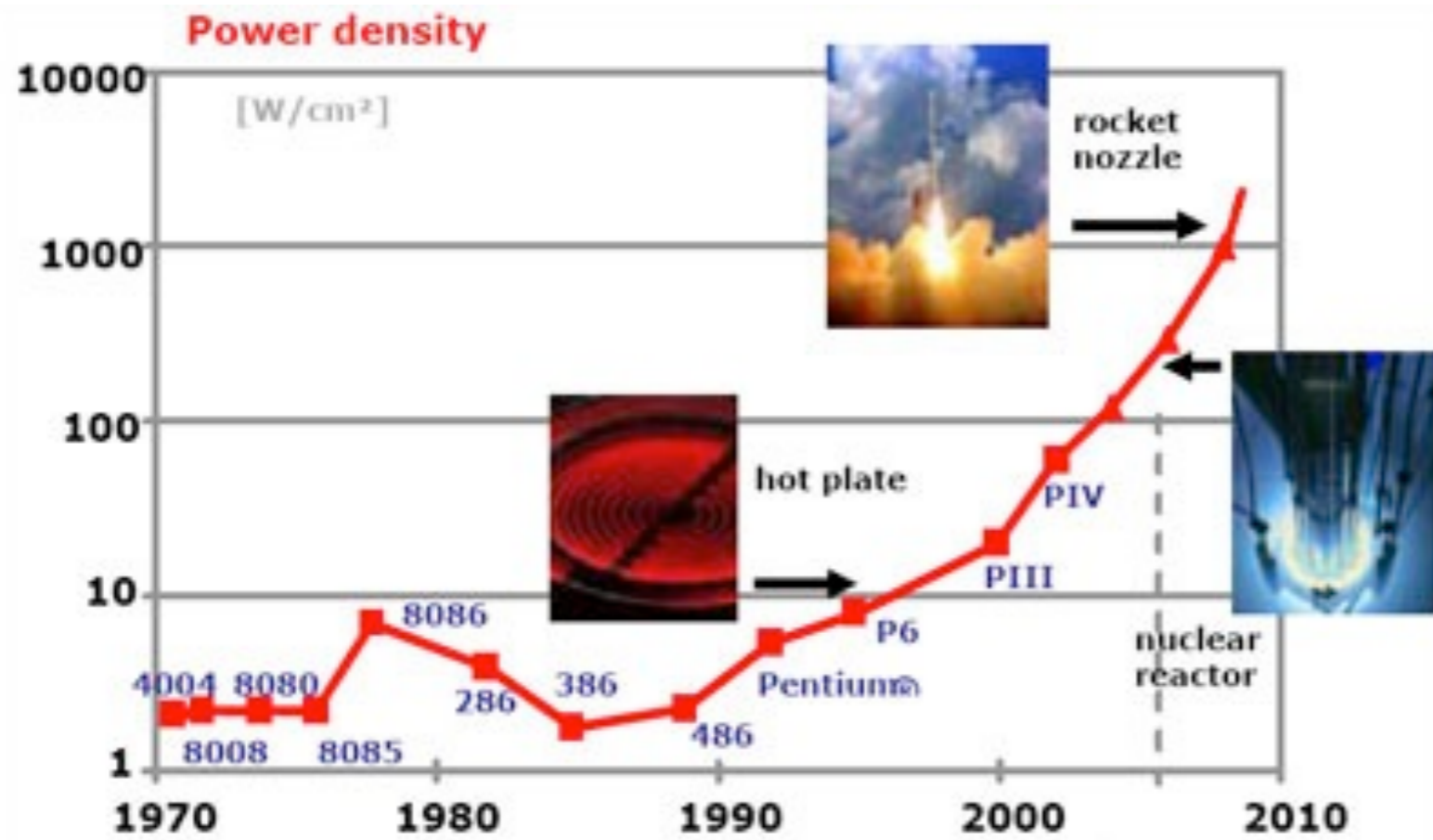


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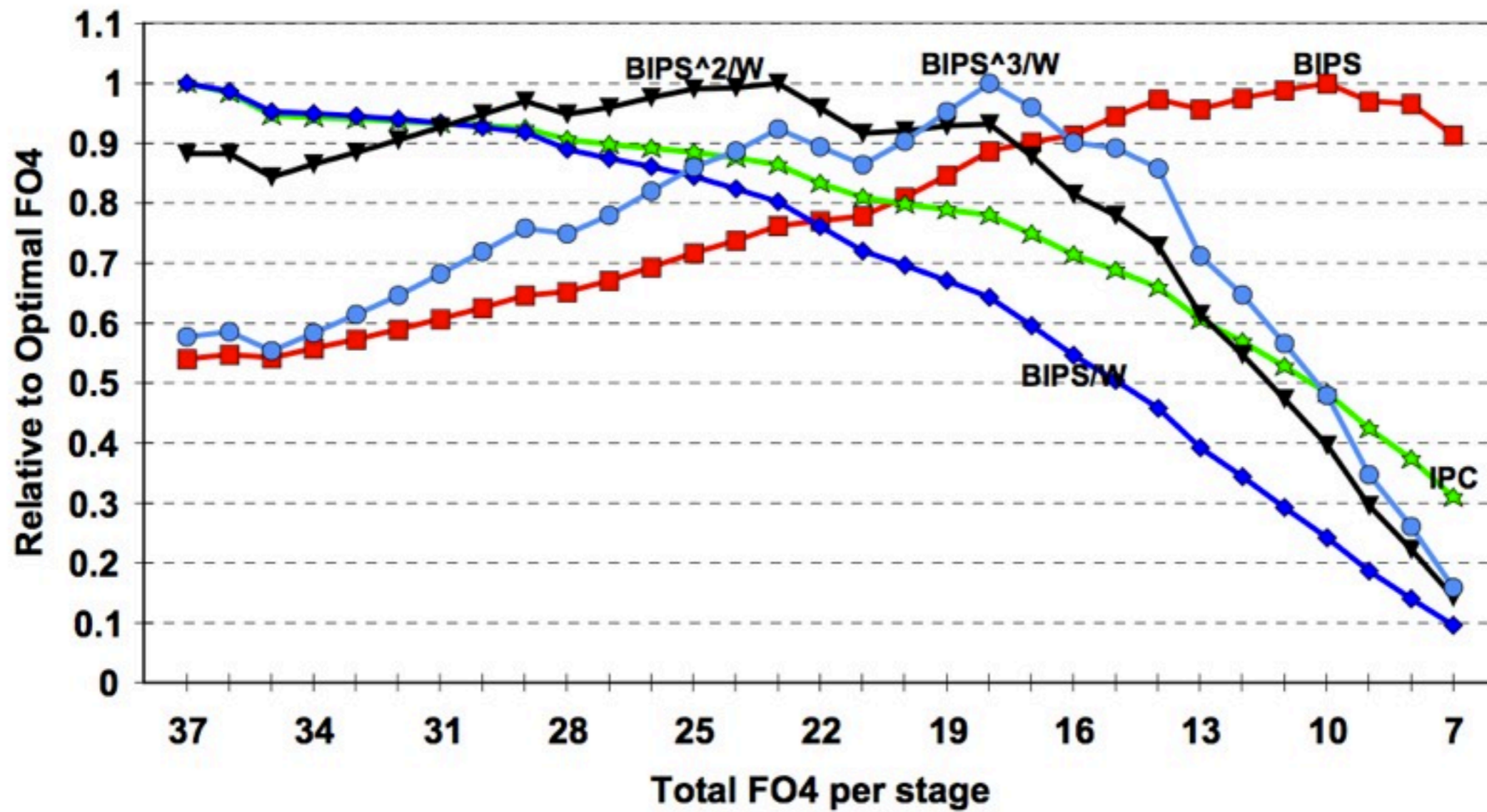
Lecture 12 - Power



Battery Energy Density Trend

Lithium Ion vs. Ni-MH vs. Ni-Cd





Power limitors

- battery life
- heat
- cost
- distribution ($\sim 1/3$ - $1/2$ of pins are power!)
- Design of the xtr - 0vdd ($V_t \sim 0.6v$)

Why $BIPS^{3/W}$?

What is “dark silicon”?

- Can only use a small amount of manufacturable silicon at a given time because of power constraints

Amdahl's Law

- An improvement technique only improves to the fraction of the problem that it applies to.