

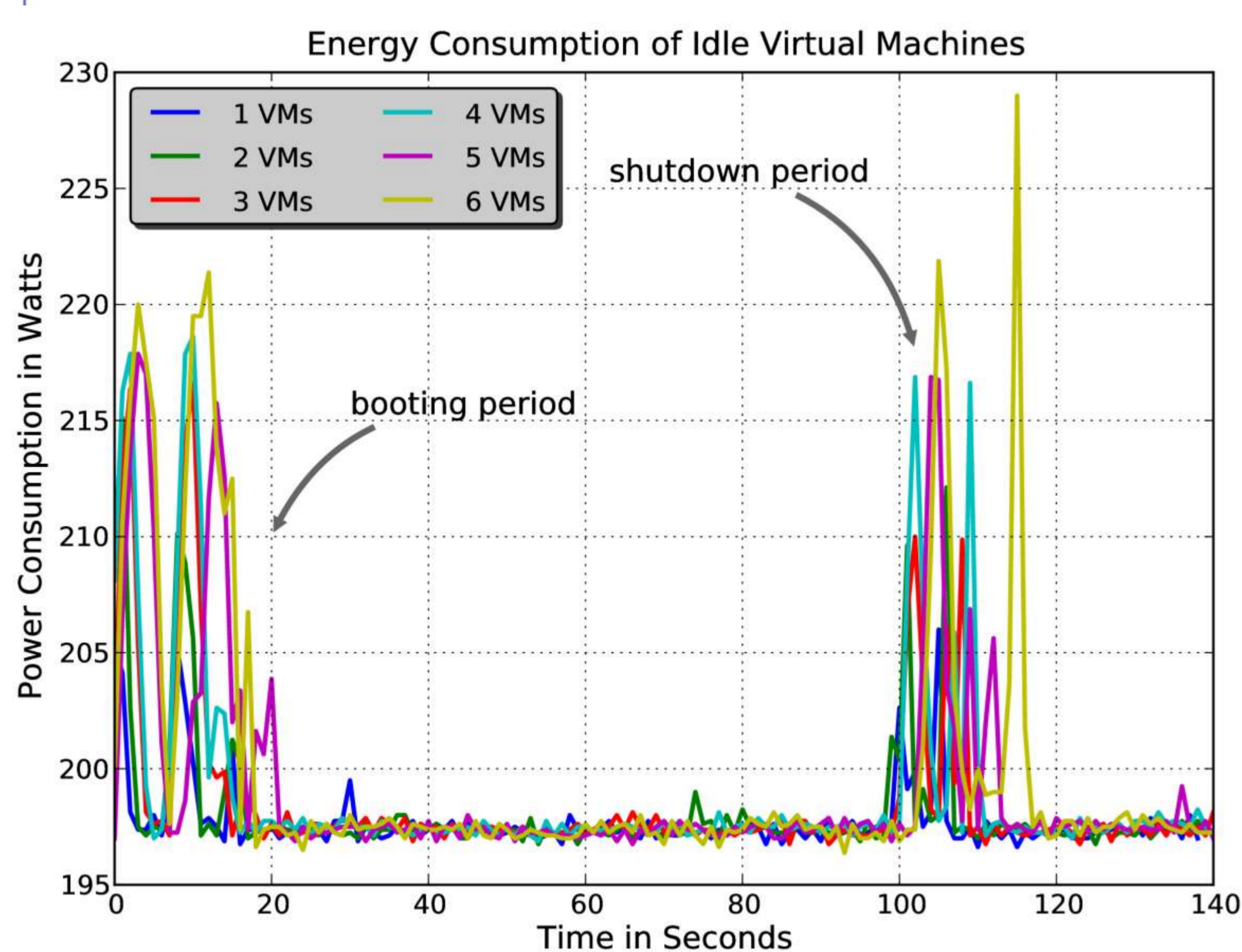
# Investigating the Energy Consumption of Virtual Machines

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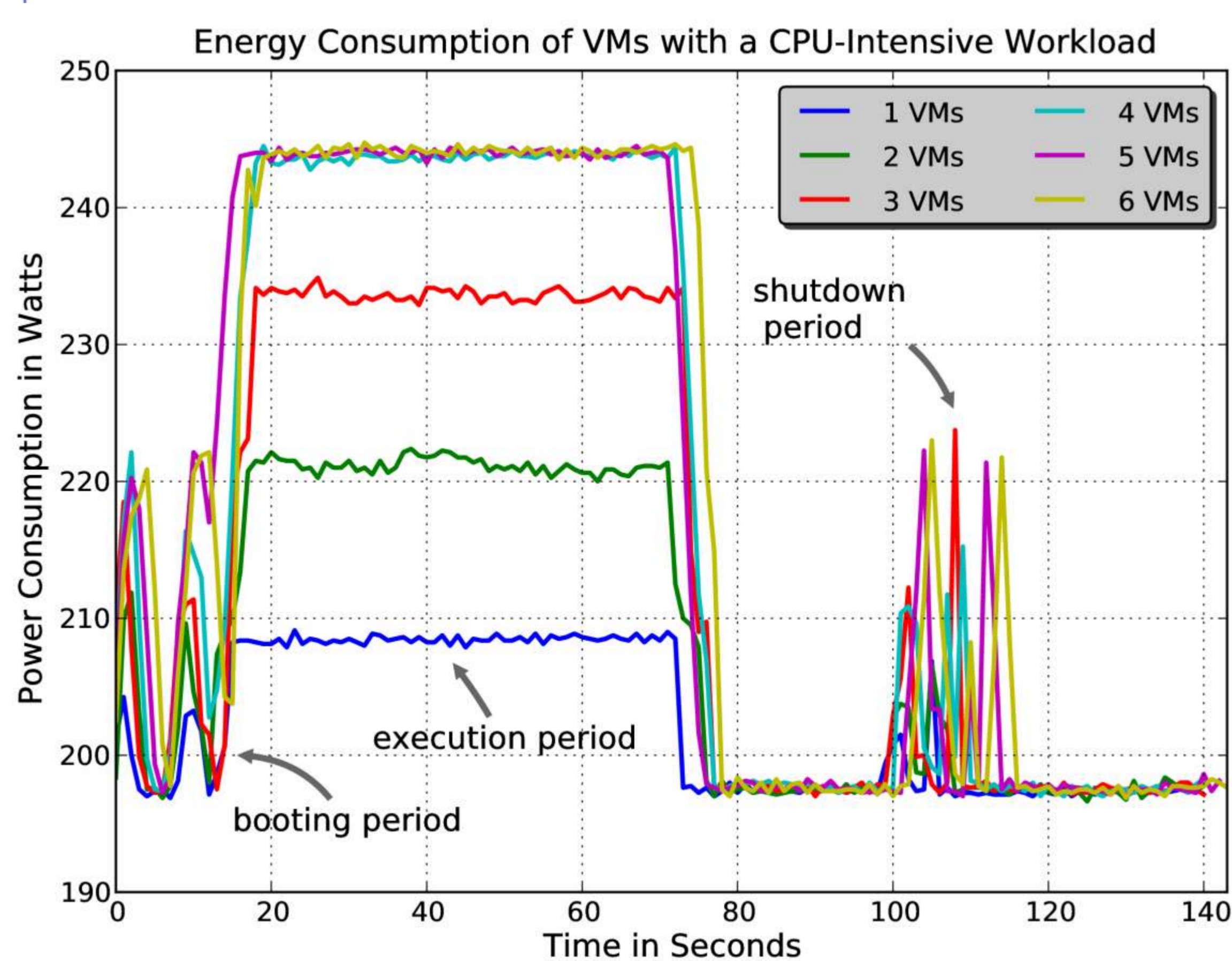
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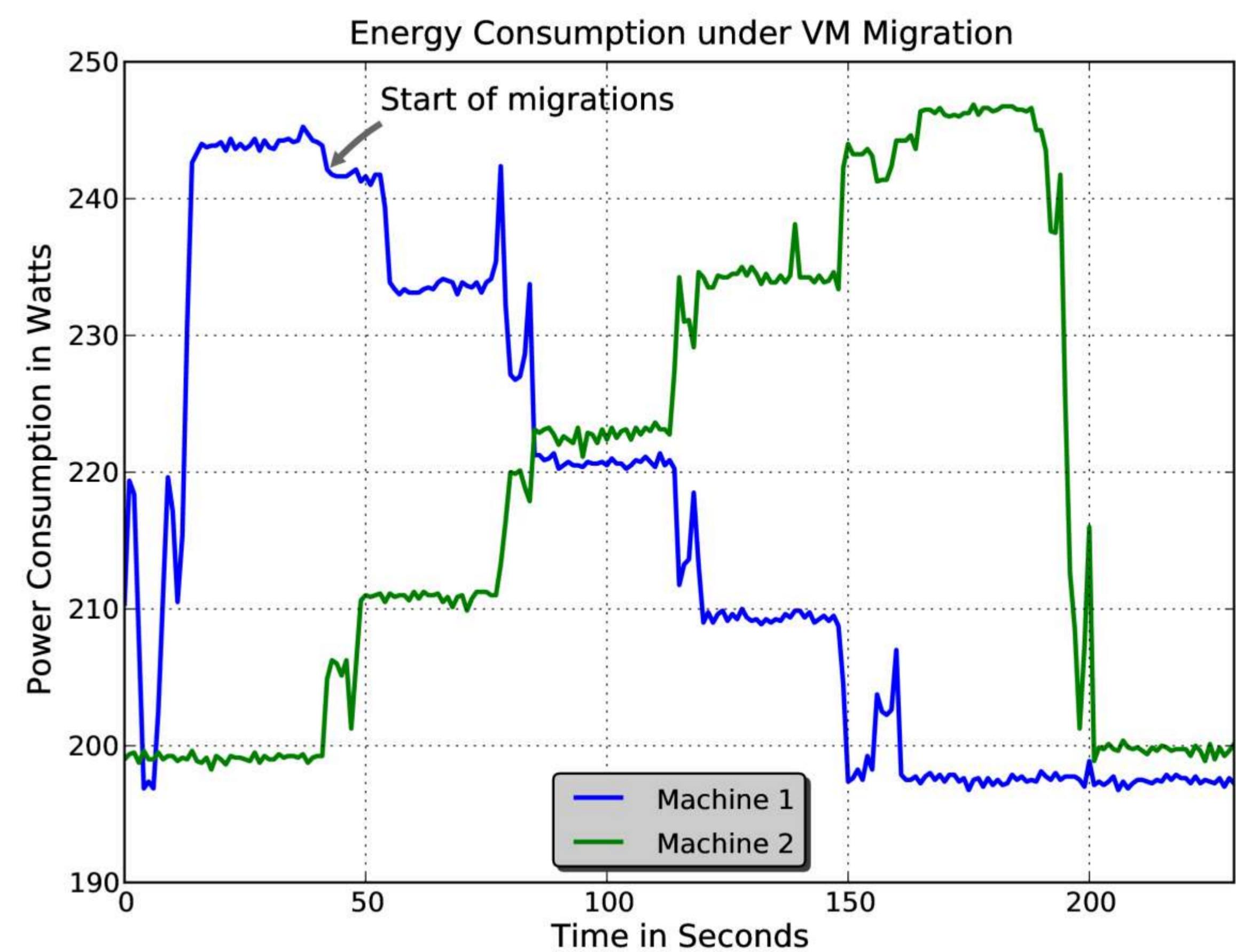
This work evaluates the power consumption of physical hosts when running Xen hypervisor and performing operations such as live VM migration, throttling Virtual CPUs (VCPUs), and changing the allocation of cores to VCPUs.



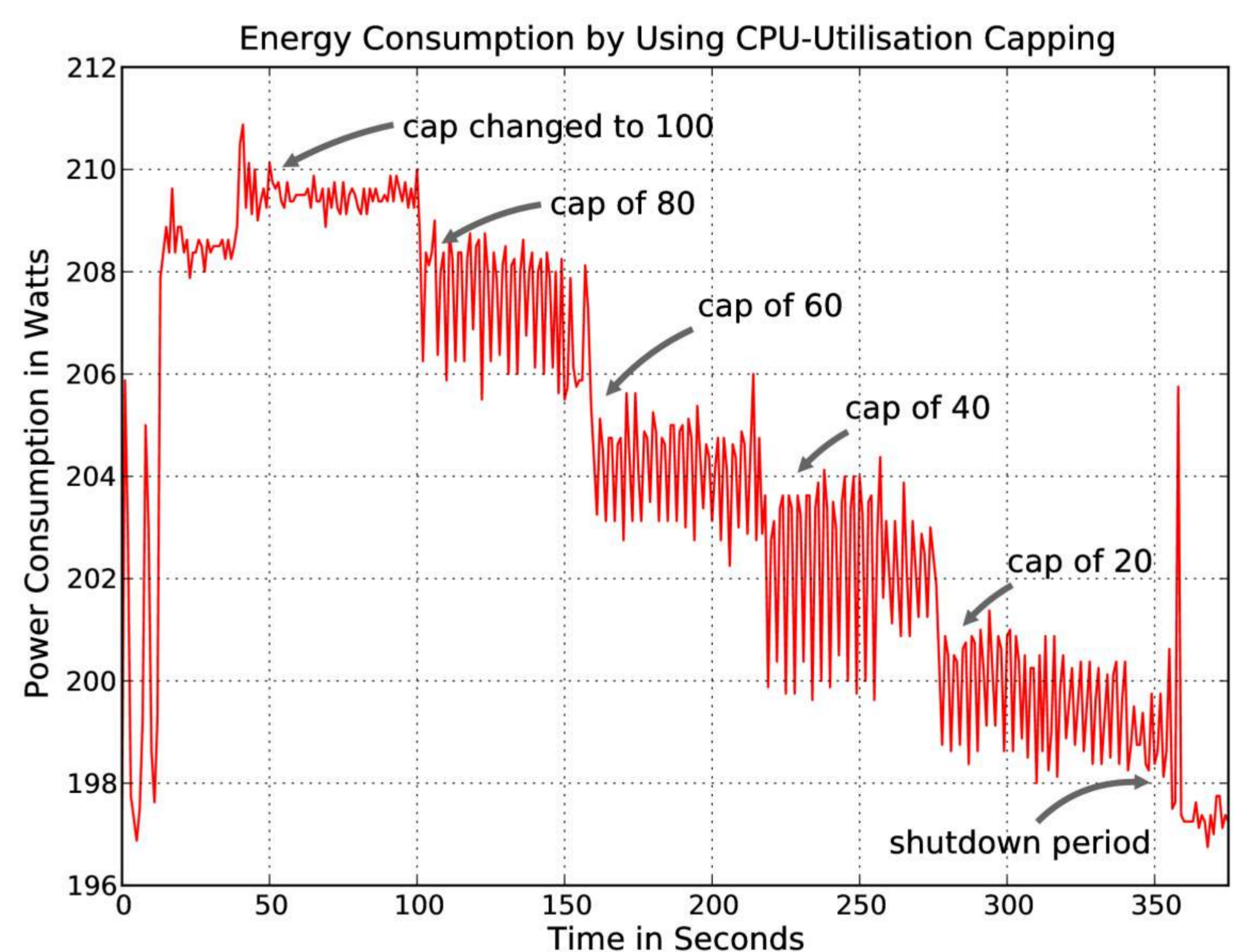
Energy consumption when running different numbers of idle VMs.



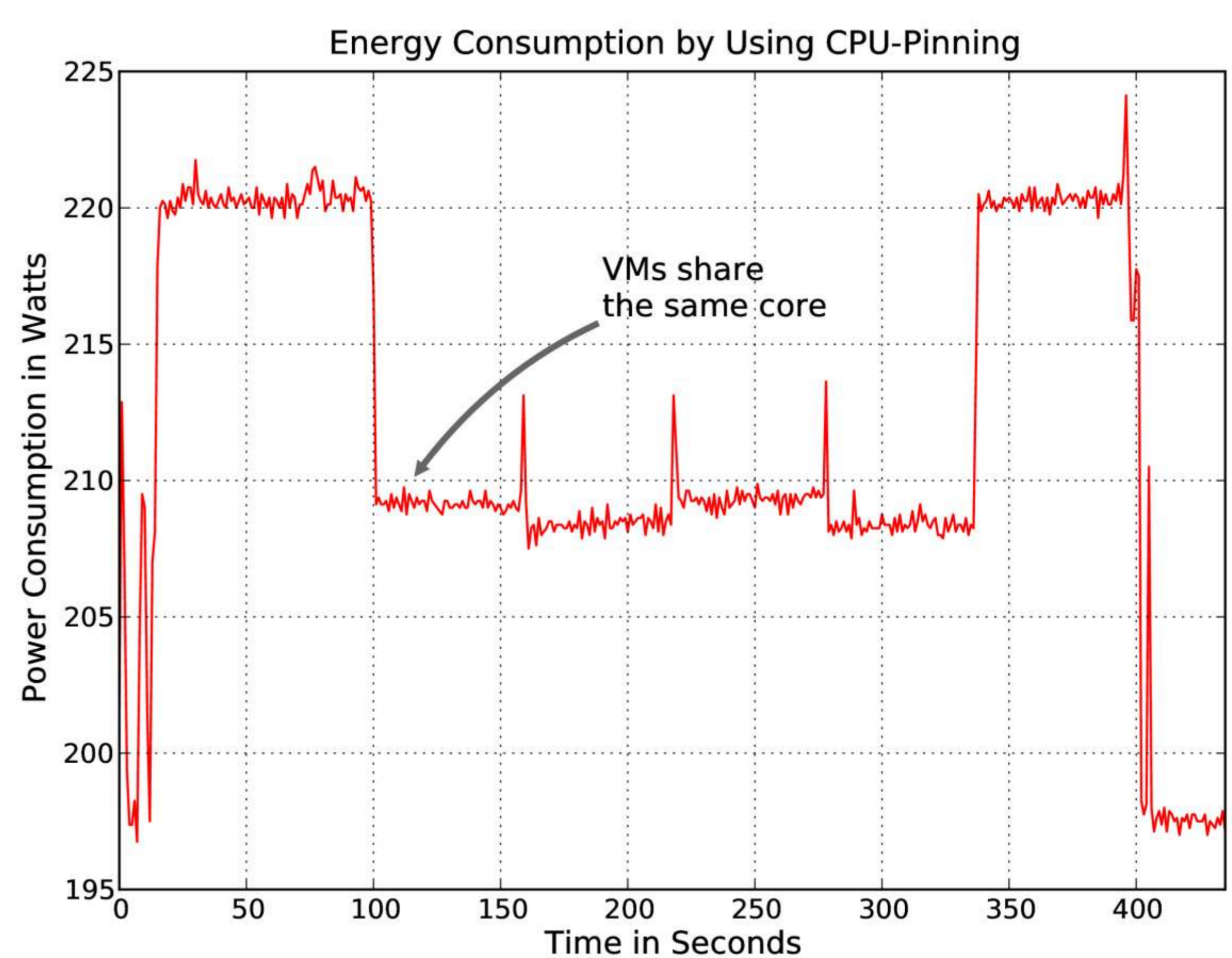
Energy consumption of VMs running a CPU intensive workload.



Migration of 4 VMs starting after 40 seconds, one migration every 30 seconds.



Energy consumption of a VM under different CPU utilisation caps.



Consumption by making the virtual CPUs of two VMs share the same core.

## Experimental Scenario:

Testbed composed of HP Proliant 85 G2 servers (2.2GHz, 2 duo core CPUs per node) with Xen open source 3.4.1.

An external wattmeter that logs the servers' power consumption.

One measurement each second.