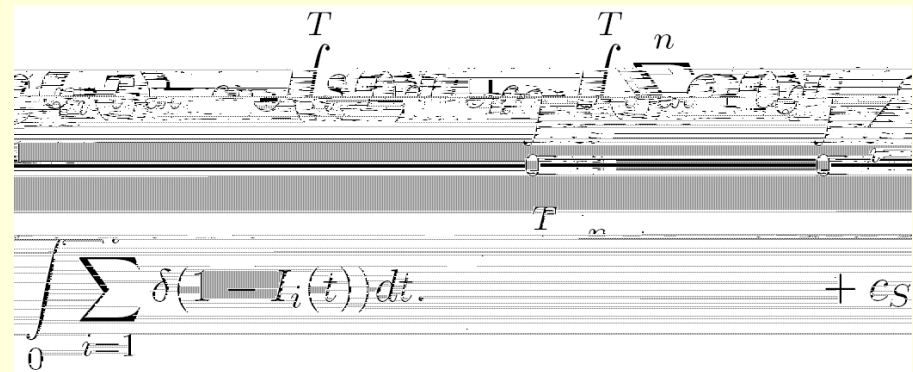


# Energy Efficient Scheduling for Data Centers

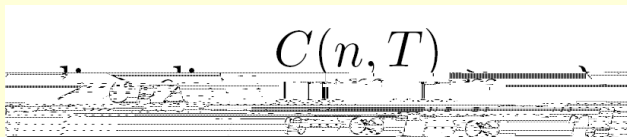
Zrinka Puljiz, Prof. Constantine Caramanis and Prof. Sanjay Shakkottai

- Data centers large power consumers
  - Find a scheduling policy that **minimizes the energy consumption** in a nontrivial way.

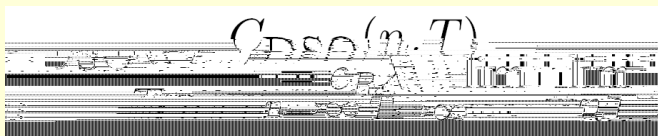
- Cost function:
  - Running cost, switching cost and queueing cost



- Every stable policy has a lower limit



- DSO policy achieves the lower limit



- Dynamic Switch-Off (DSO) policy:**

- Join a server that finished processing most recently
- If the server is idle for  $\tau$  time it gets switched "OFF"