

CLOUD COMPUTING CONCEPTS

with Indranil Gupta (Indy)

GRIDS

Lecture A

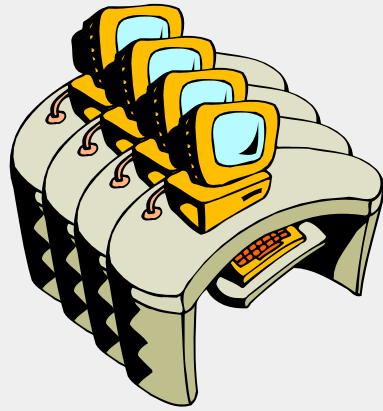
GRID APPLICATIONS

EXAMPLE: RAPID ATMOSPHERIC MODELING SYSTEM, COLOSTATE U

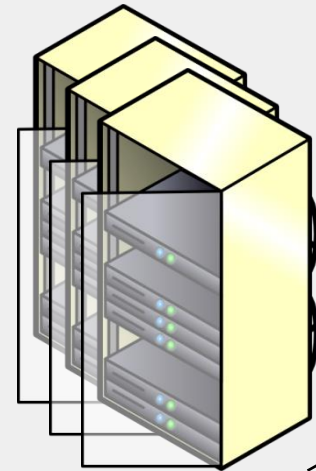
- Hurricane Georges, 17 days in Sept 1998
 - “RAMS modeled the mesoscale convective complex that dropped so much rain, in good agreement with recorded data”
 - Used 5 km spacing instead of the usual 10 km
 - Ran on 256+ processors
- Computation-intensive computing (or HPC = High Performance Computing)
- *Can one run such a program without access to a supercomputer?*

DISTRIBUTED COMPUTING RESOURCES

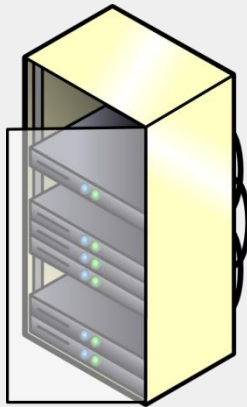
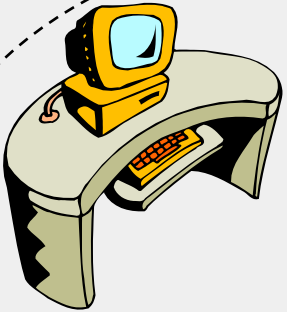
Wisconsin



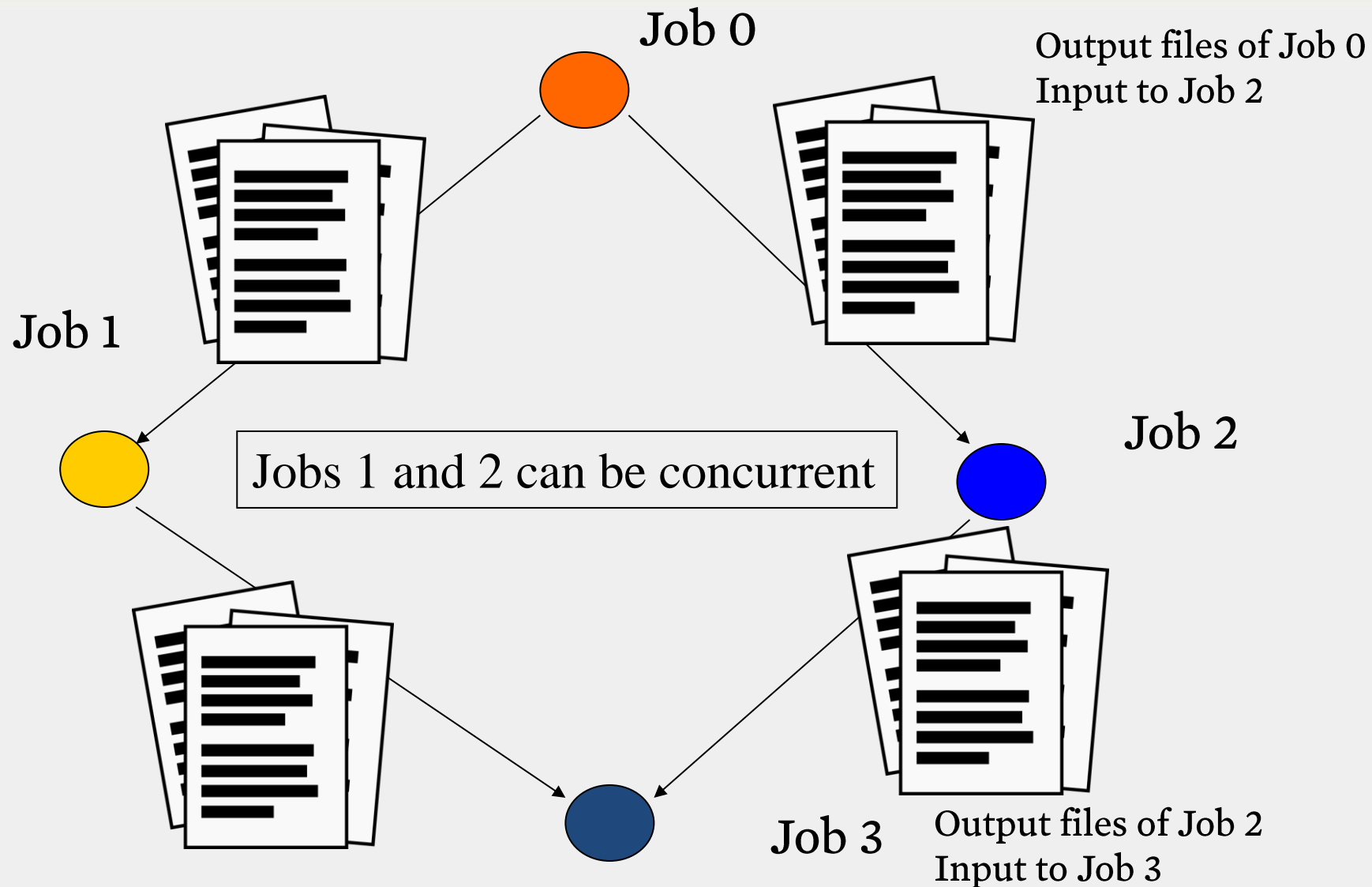
NCSA



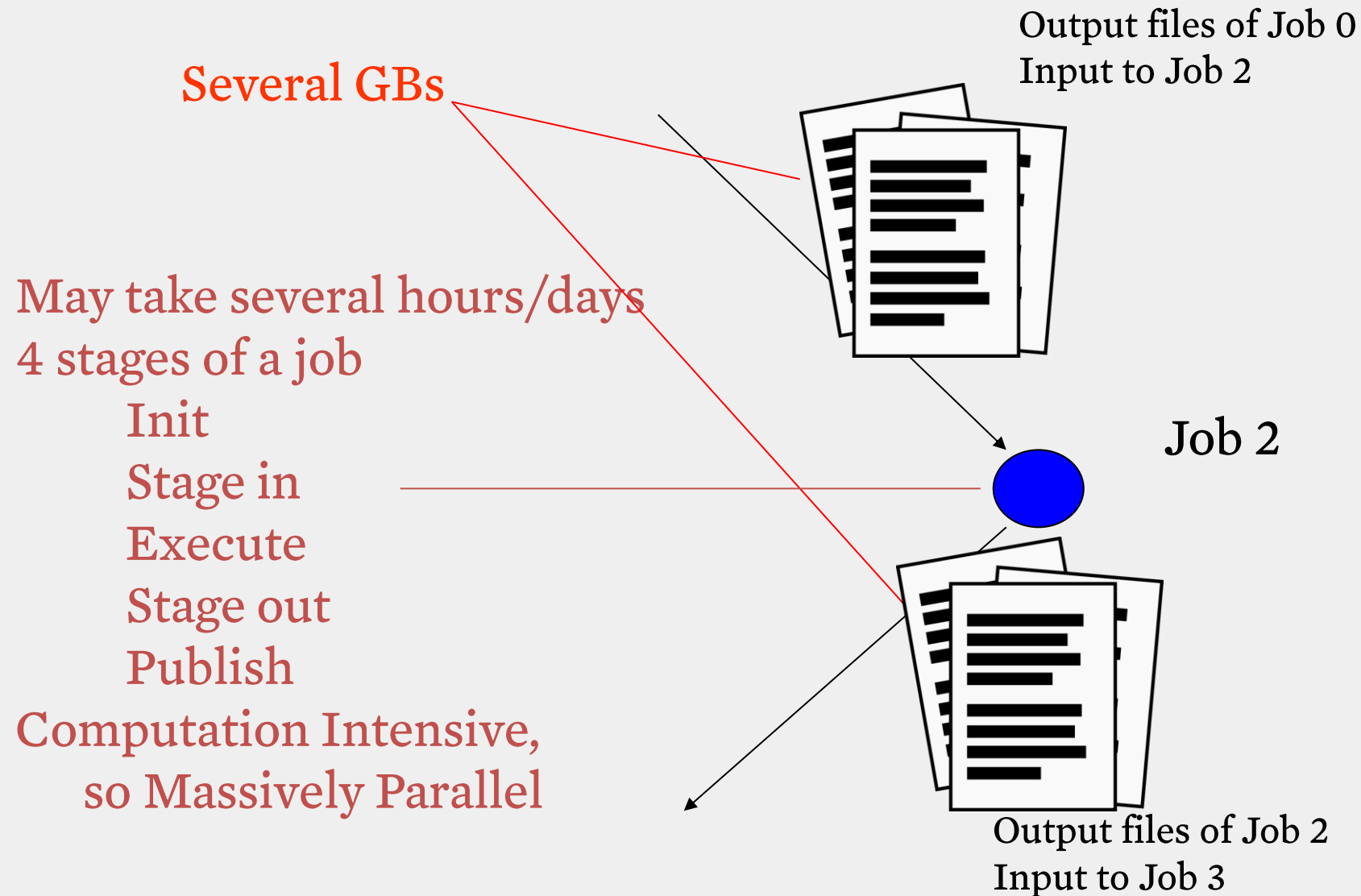
MIT



AN APPLICATION CODED BY A PHYSICIST/BIOLOGIST/METEOROLOGIST



AN APPLICATION CODED BY A PHYSICIST/BIOLOGIST/METEOROLOGIST



NEXT: SCHEDULING PROBLEM

