

# SWIF - WORKFLOW TOOL

## **(Scientific Workflow Indefatigable Factotum)**

- Command line tools ready for testing in March

### **Simplify use of batch system**

- Group related jobs
- Automatically re-try for certain error classes
- Resolve job errors by problem type
- Catalog input -> job -> output
- Jobs run in clean, user-specified login shell
- Optionally specify job output at run time
- Preserve partial output on failure (/volatile)
- Validate Input and Output files before running job

### **Increase overall system utilization**

- Reduce tape thrashing
- Exploit data locality and parallelism

# COMMAND LINE TOOLS

## **Create workflow**

- Name, owner

## **Add jobs**

- `swif add-job blah --cores 8 --script myscript --input f1 /mss/blah/f1 --output ...`

## **Run / suspend / cancel**

- Limit number or set of jobs eligible for dispatch
- Optionally discard generated output

## **Status report**

- Aggregate job status / progress
- Error report
- Outputs

## **Resolve errors**

- Modify / resubmit / abandon

## **Specify output from within job**

- `swif outfile myfile /mss/blah/myfile`