

# Parallel & Cluster Computing

## NSF Major Research Instrumentation

National Computational Science Institute

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# NSF MRI Program

- The National Science Foundation (NSF) has a large equipment acquisition and development program called Major Research Instrumentation (MRI).
- The program is for equipment that is too costly or too broadly applicable to be covered under a standard research grant.
- Historically, about 40% of proposals have been funded – very high for an NSF program.





# NSF MRI Challenges

- Only 2 acquisition proposals per university per year: need internal competition within each university.
- Can ask for up to \$2M, but at \$1M+, probability of success reduces to about 10%, because reviewing includes a second round that is among NSF program officers, not external academic reviewers.
- CS historically has been funded at a much lower rate than the overall average, only about 30-35%.



# MRI Proposals That Succeed

MRI proposals for HPC systems often get funded if either of the following are true:

- Novel hardware
- Novel kind of computing

Other positives include:

- PI in EPSCoR state
- Includes Minority Serving Institution
- Includes non-PhD-granting institution

Success is much more likely if the PIs have **DONE THEIR HOMEWORK** (benchmarking etc).





# MRI 2005 Timeline

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- Fall 2004: benchmarking, internal competition
- Jan 2005: submit
- June 2005: hear
- Sep 2005: receive money
- Fall 2005: RFP
- Spring 2006: decide, purchase, deploy

RFP advice: propose as many different configurations as possible!

