



The Nearby Supernova Factory

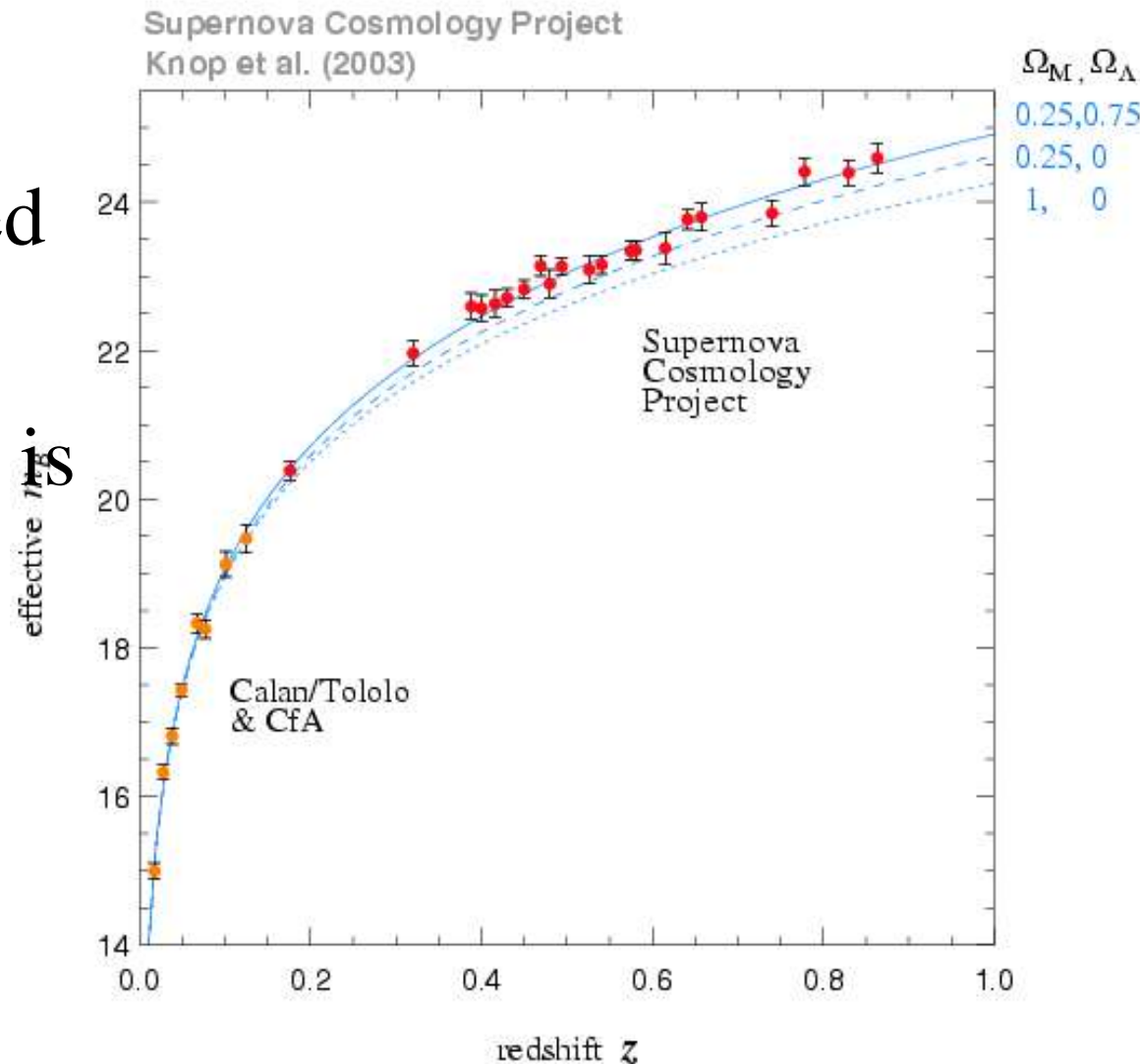
Benjamin Alan
Weaver
HPWREN Users
Meeting
22 September 2005





Background

- Accelerating Expansion discovered ~1999
- 70% of the Universe is Anybody's Guess
- Distant supernovae easier to find





SNF Overview

- Find & study supernovae in nearby galaxies
- American-French collaboration
- Search on Mt. Palomar
- Follow-up on Mauna Kea
- High performance networking critical
- Create public database of supernova spectra
- Deeper understanding of Type Ia cosmology

SNF Data Flow



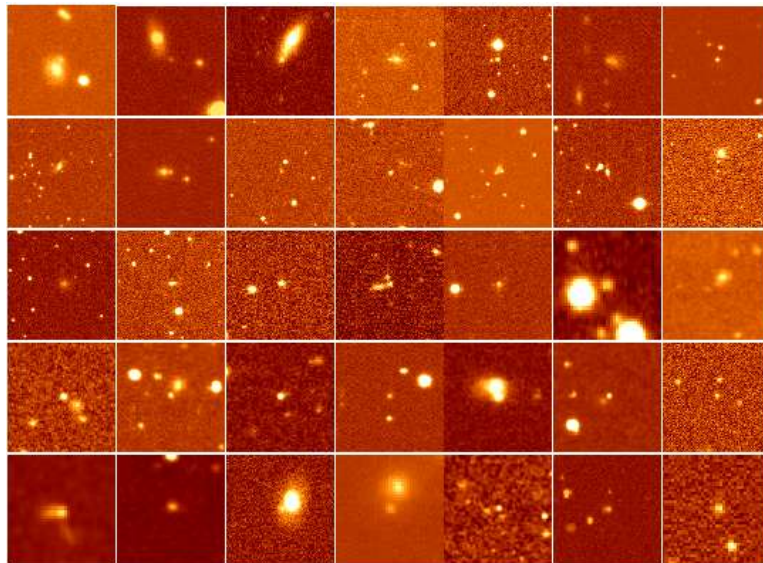
Palomar 1.2 m Schmidt
NEAT/QUEST Data

HPWREN

~25000 images/night
~50 GB/night



HPSS Mass Storage



Supernovae!



NERSC PDSF Compute Cluster



Conclusion

- Current search very successful
- Continuous improvement
- Further information at <http://snfactory.lbl.gov>