

ACCRETION SCENARIO



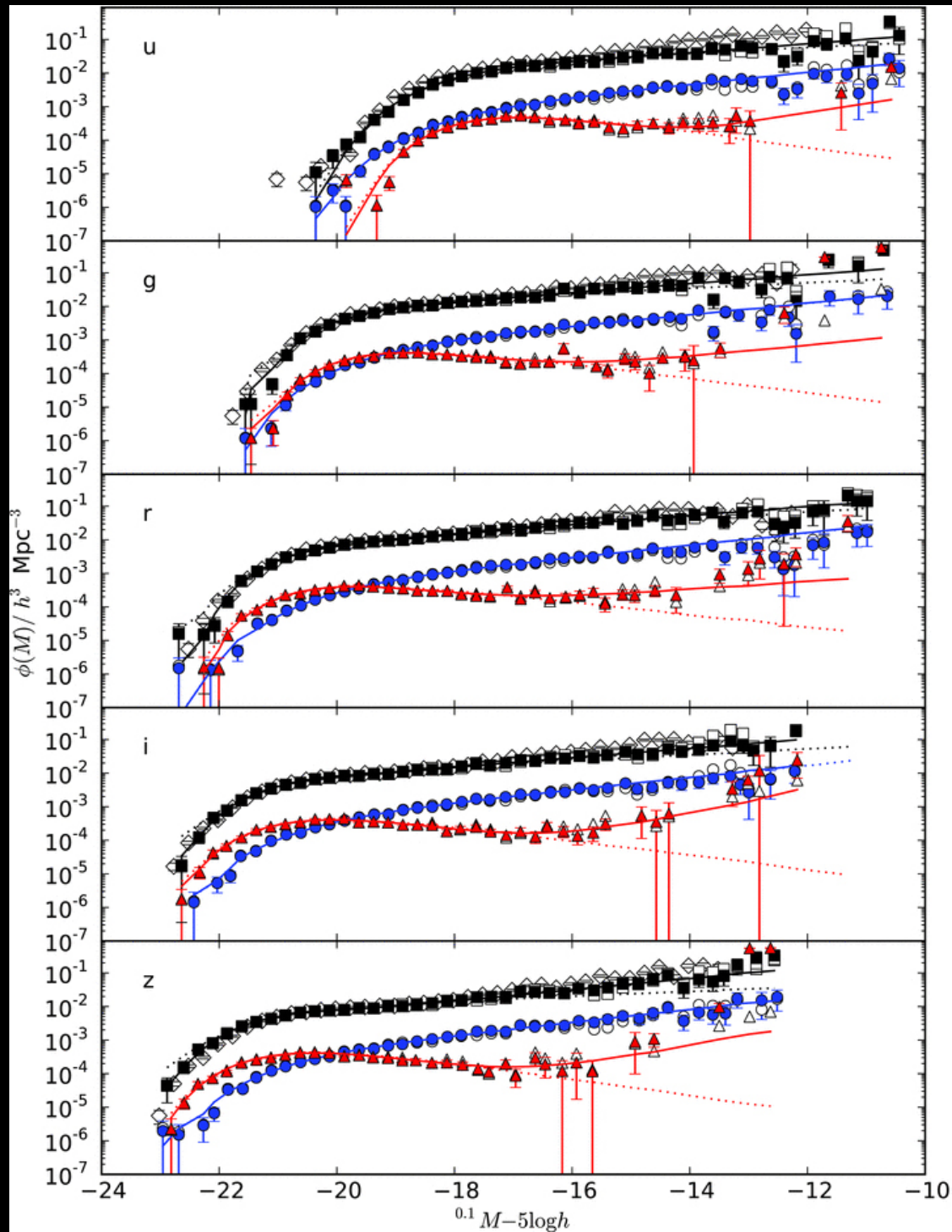
WHITE DWARF GROWS IN MASS

# Introduction to Cosmology

## Lecture 6



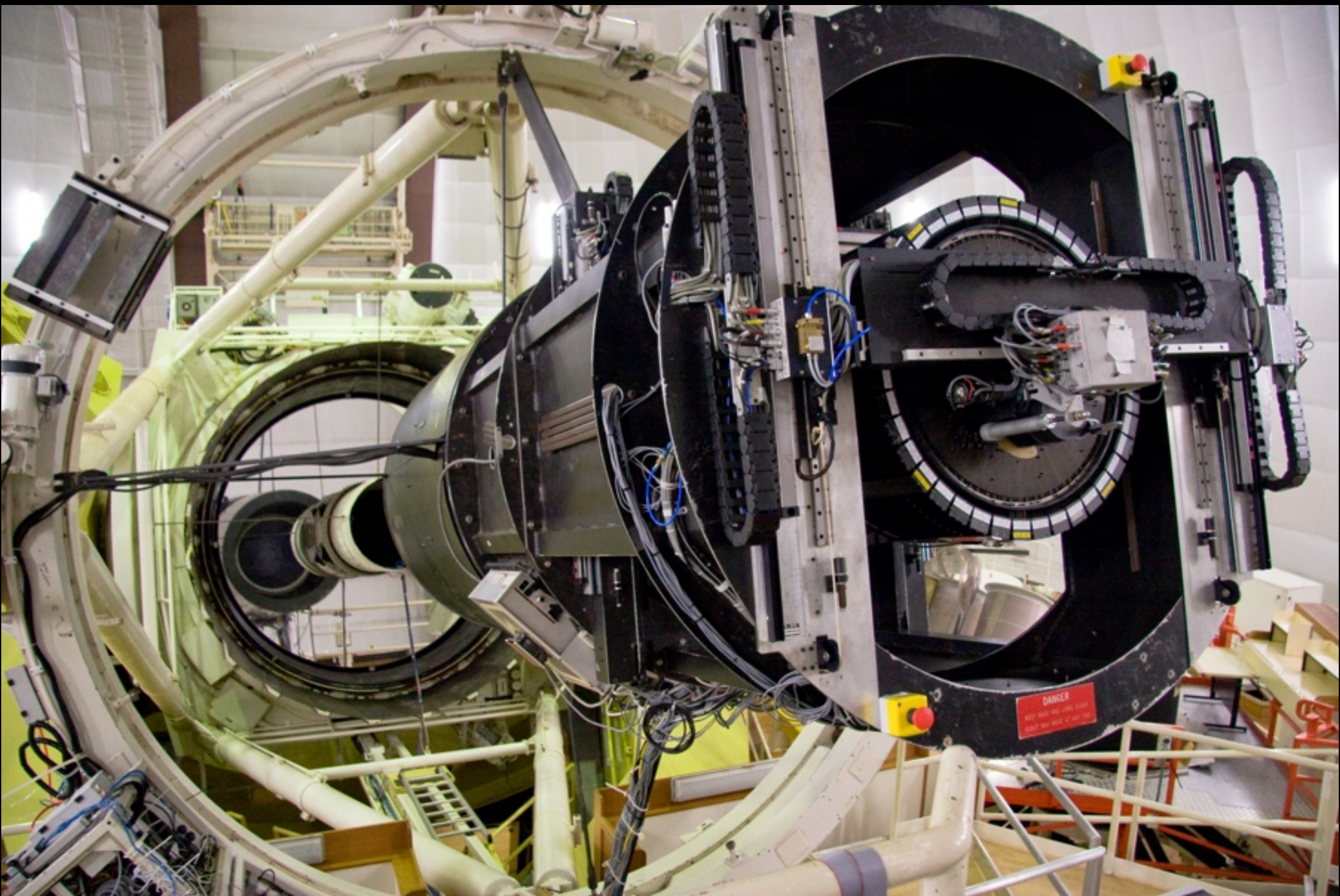
MASS LIMIT IS EXCEEDED -> TYPE IA SUPERNOVA

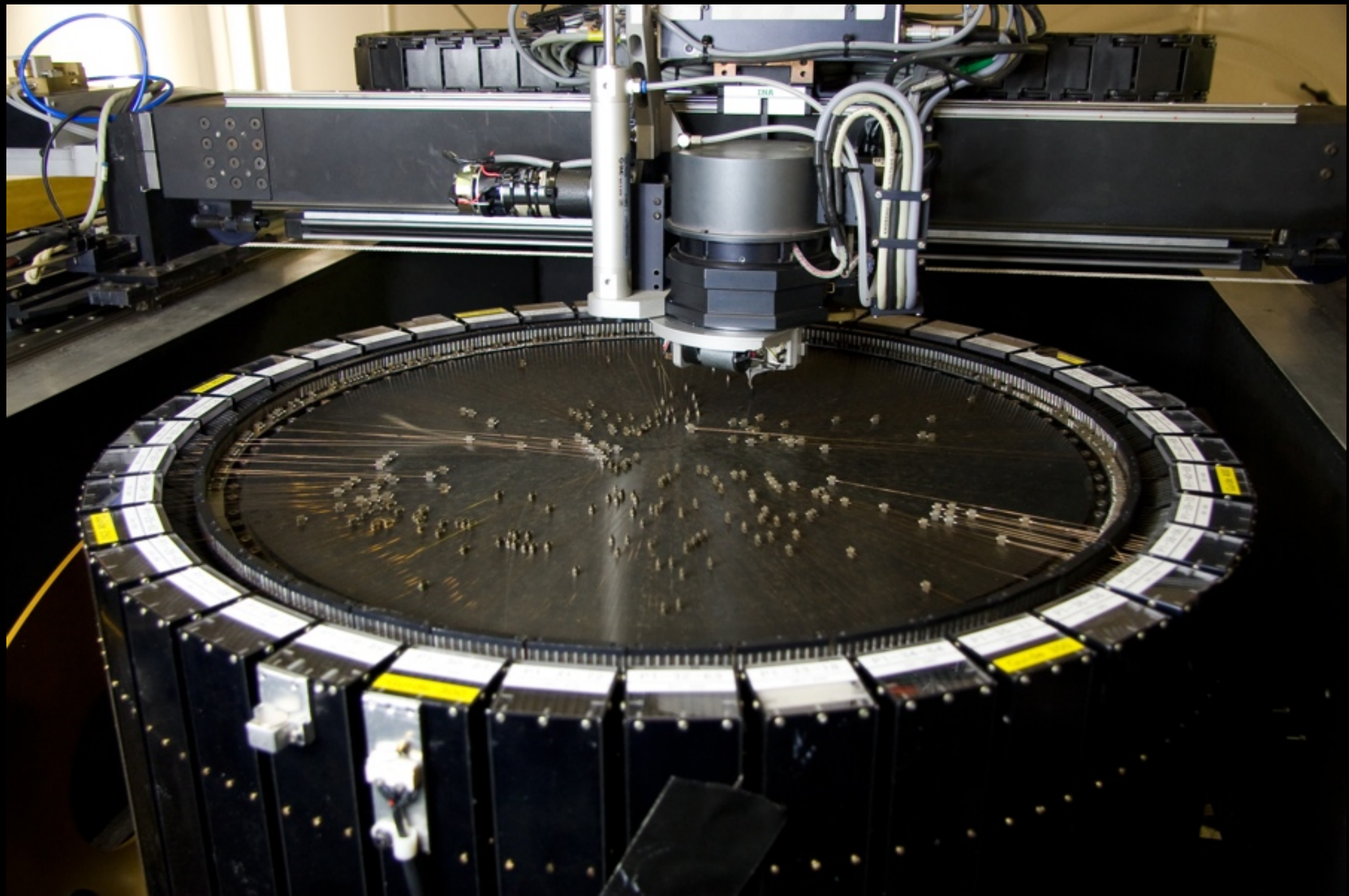


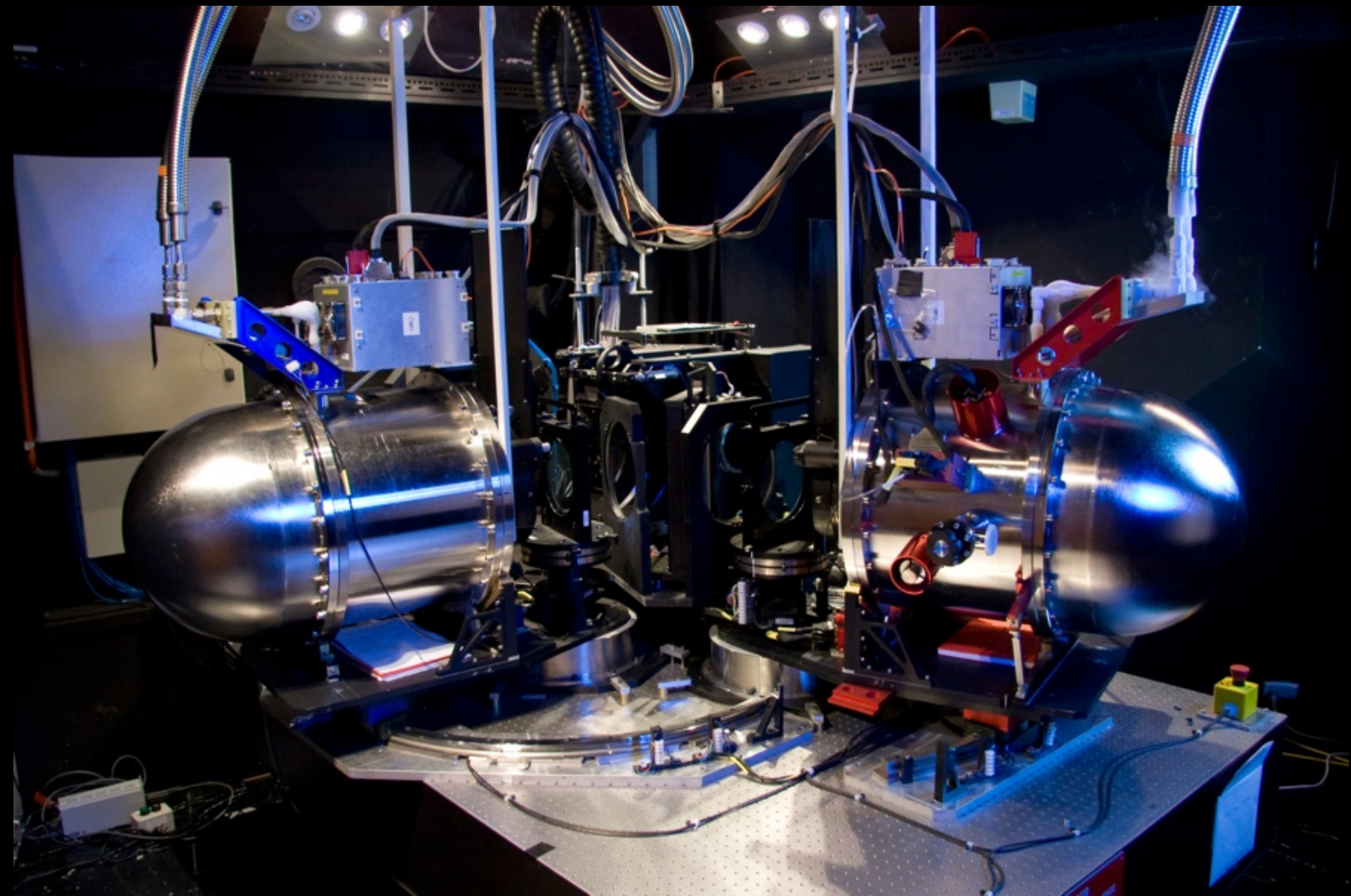
Loveday+ 2012

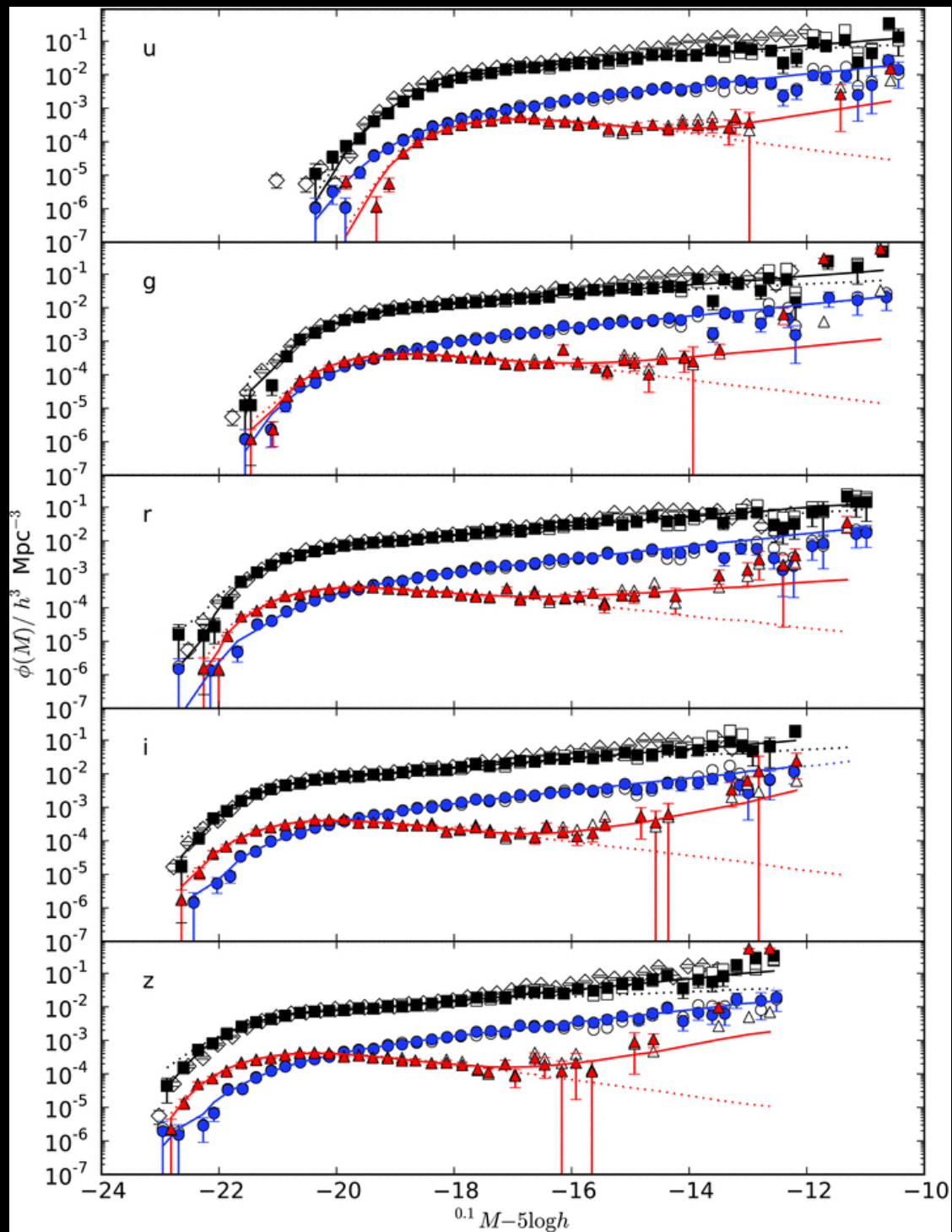






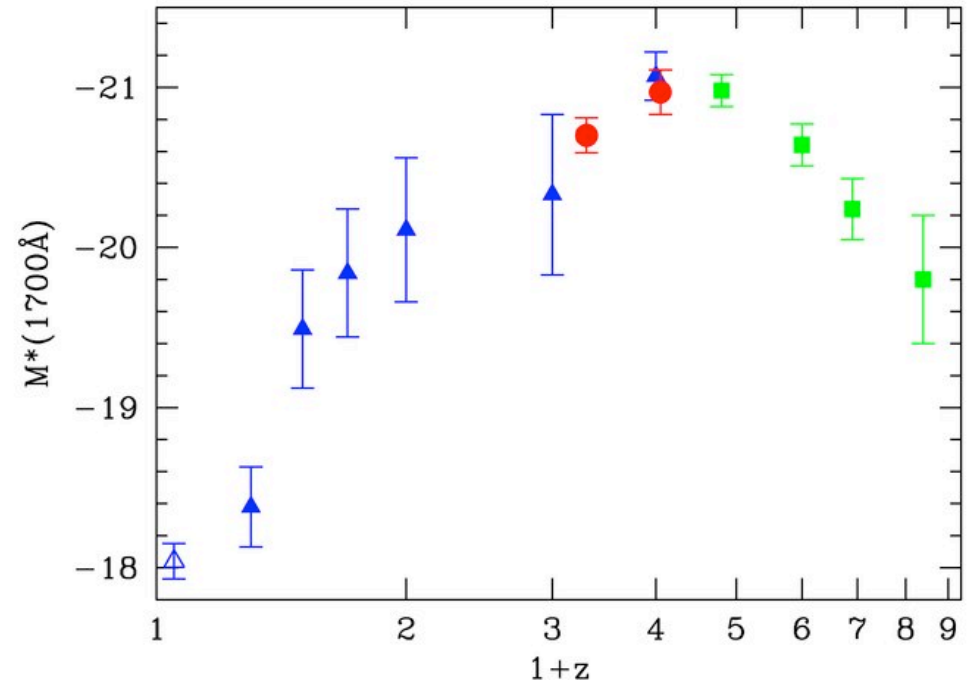
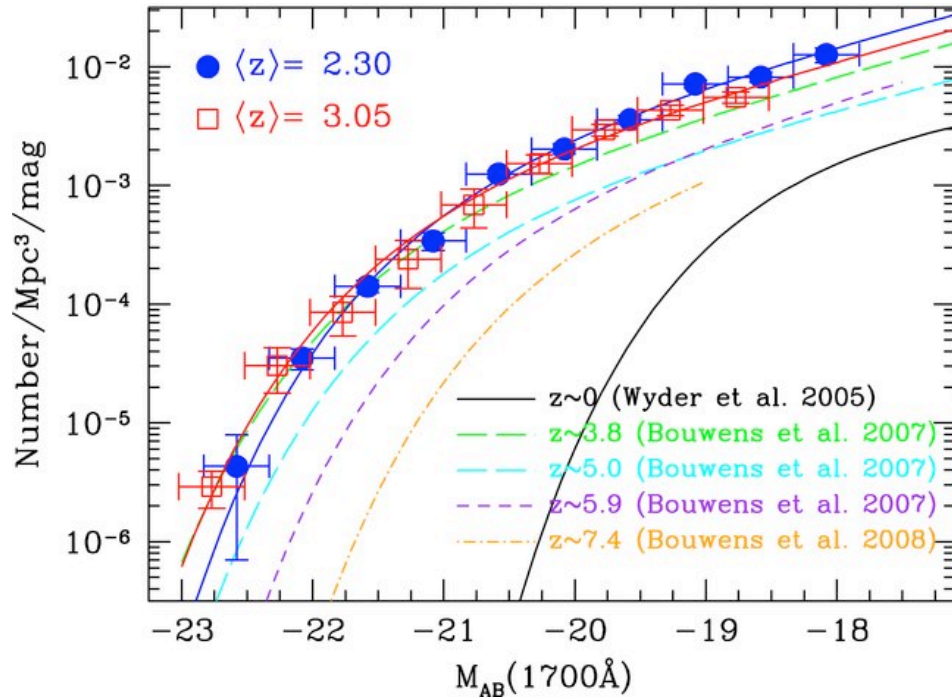






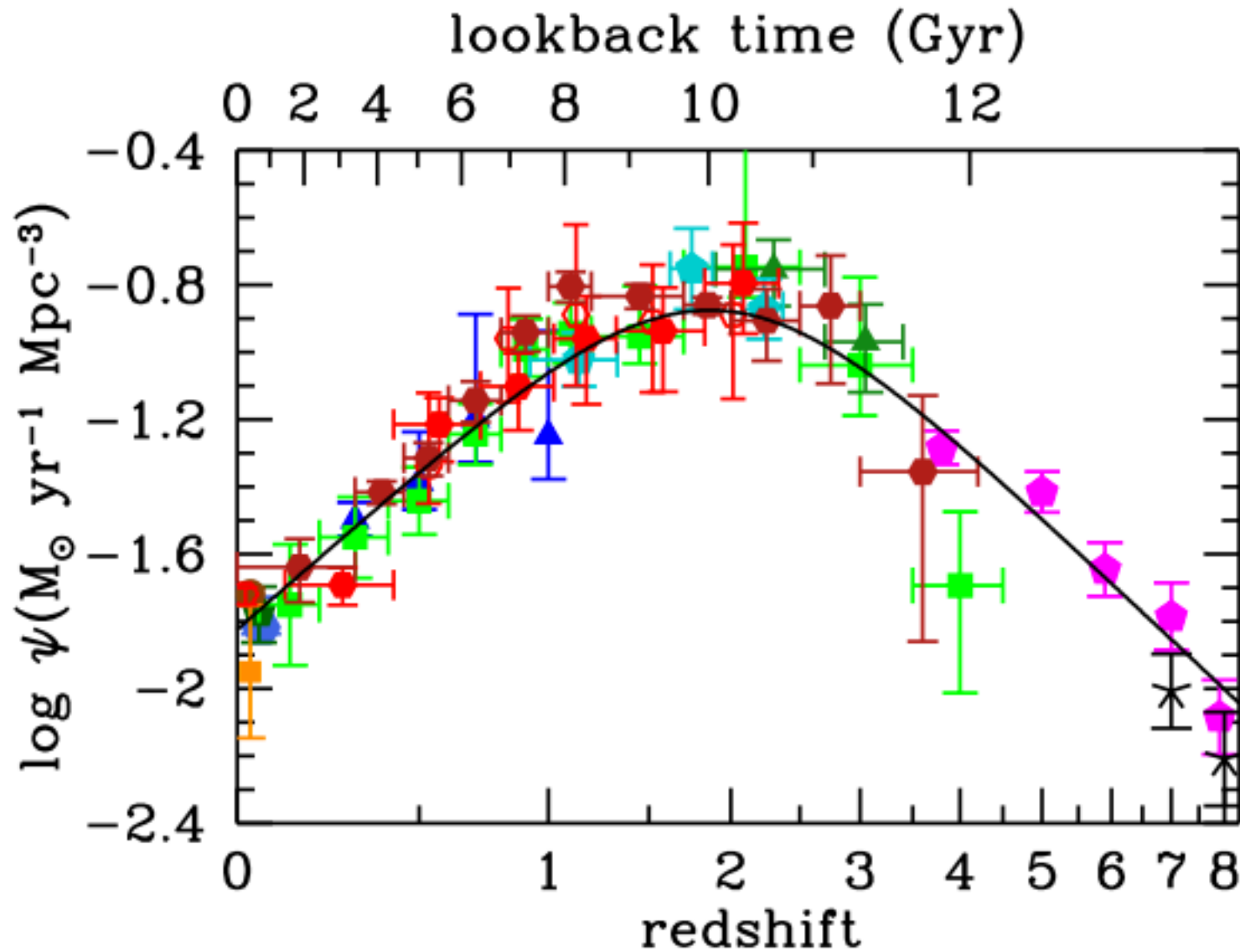


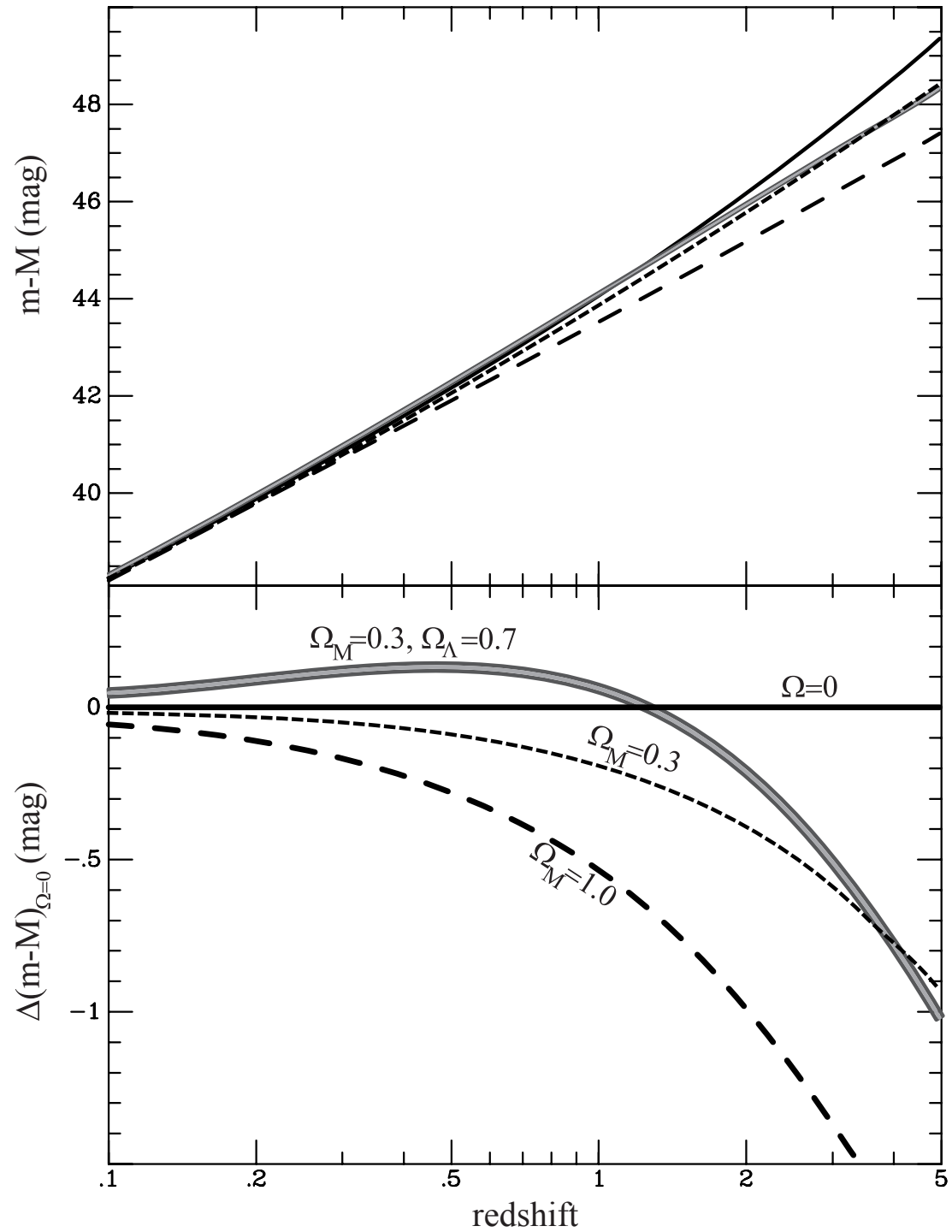
# Redshift Evolution of the Ultraviolet Luminosity Function of Galaxies



Reddy & Steidel 2009

# The Cosmic Star Formation History





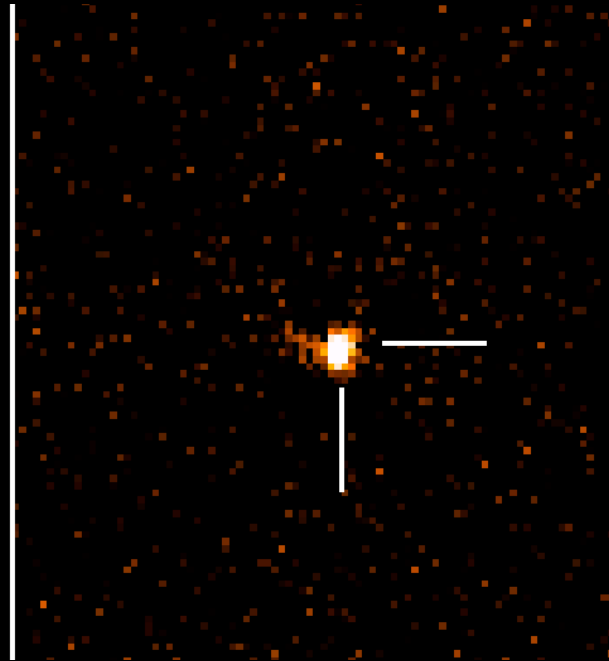
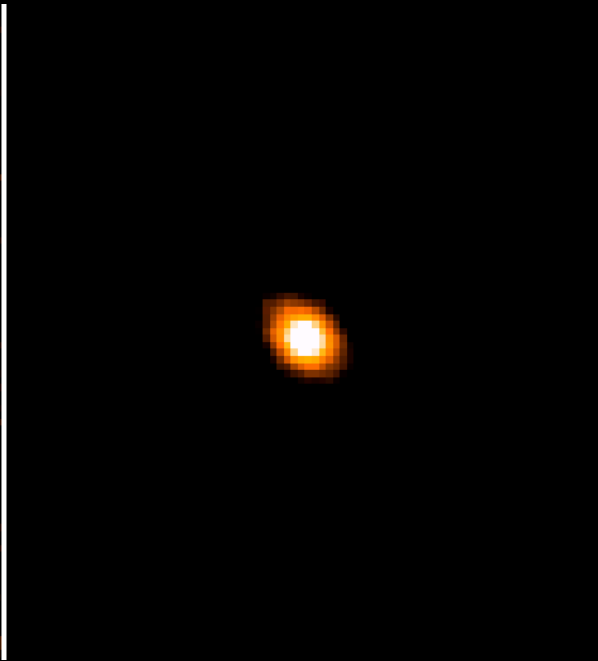
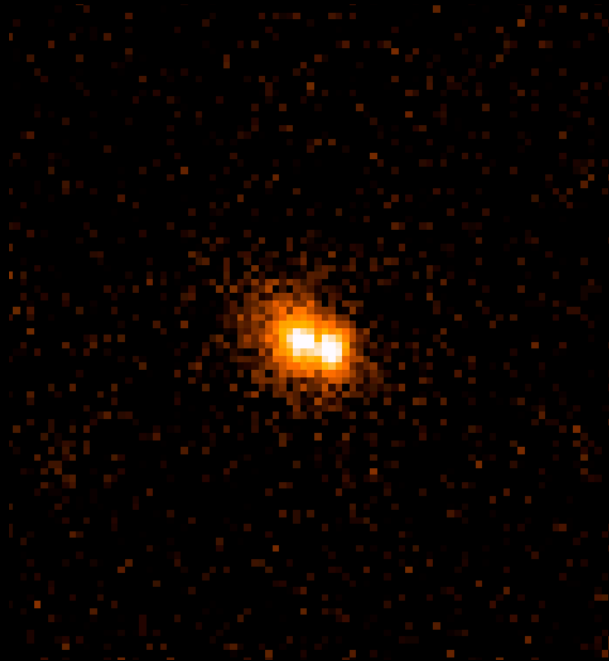


SN 1998aq in NGC 3982



SN 2011fe

M101

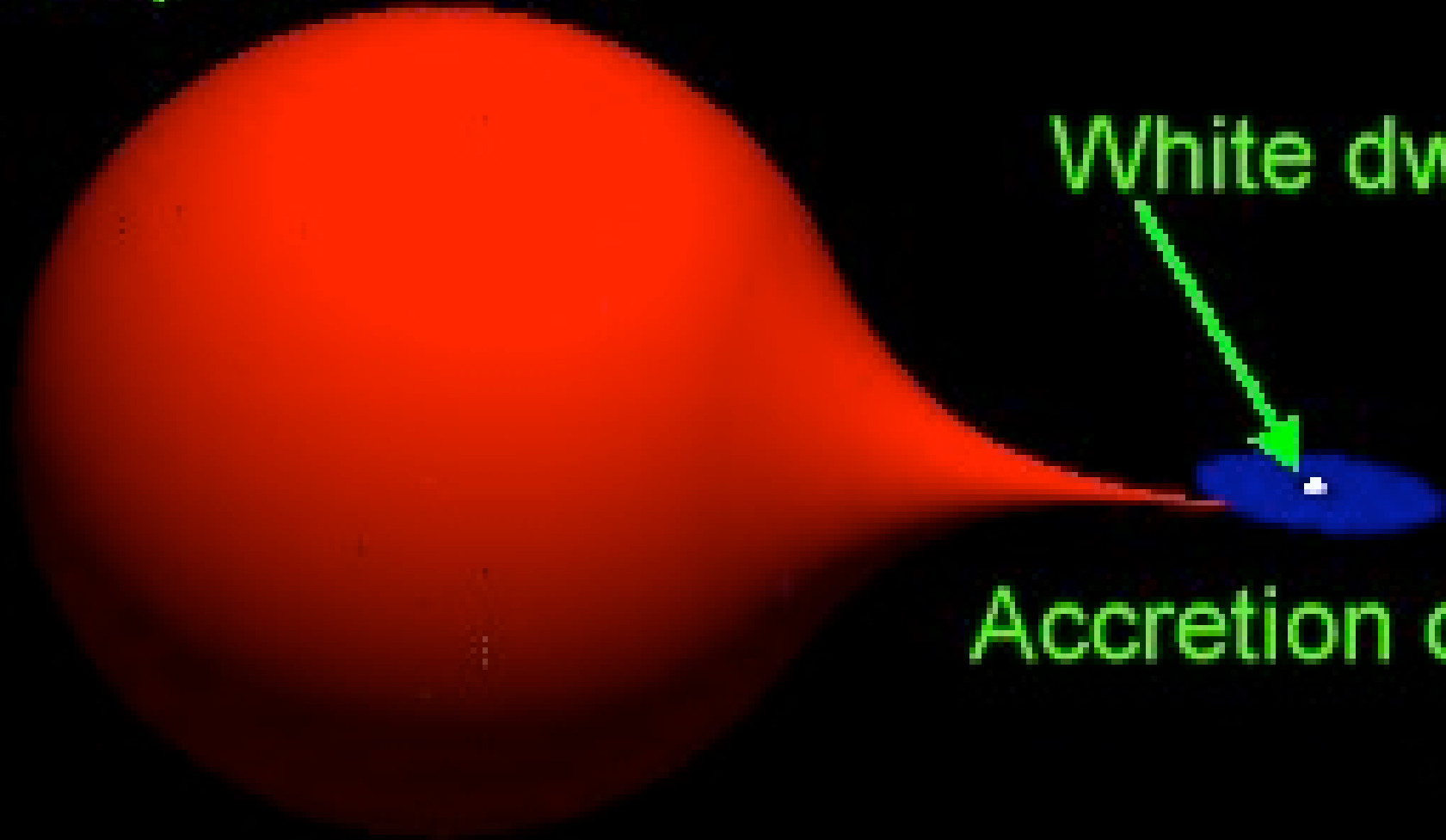


The first Type Ia SN discovered with the Gaia satellite

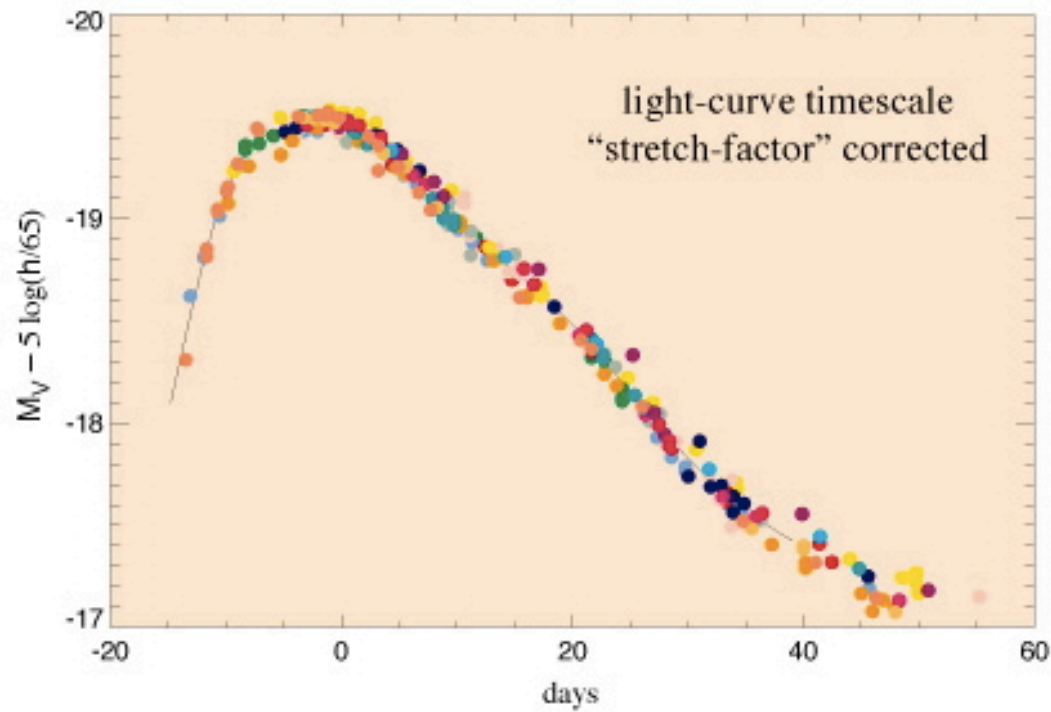
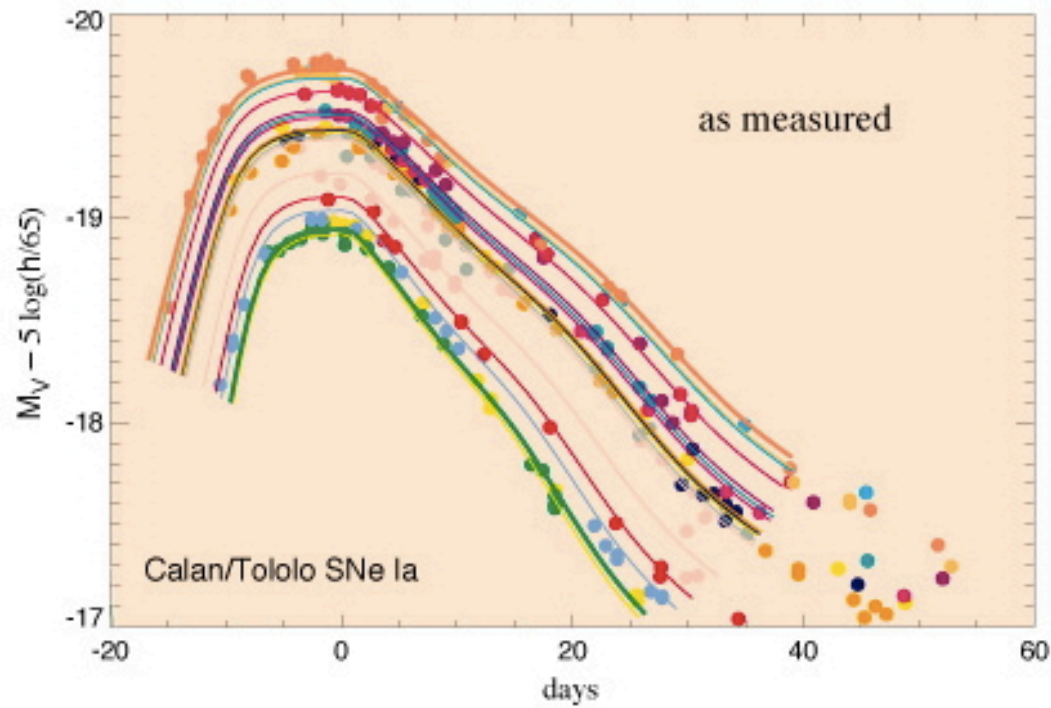
Companion star

White dwarf

Accretion disk



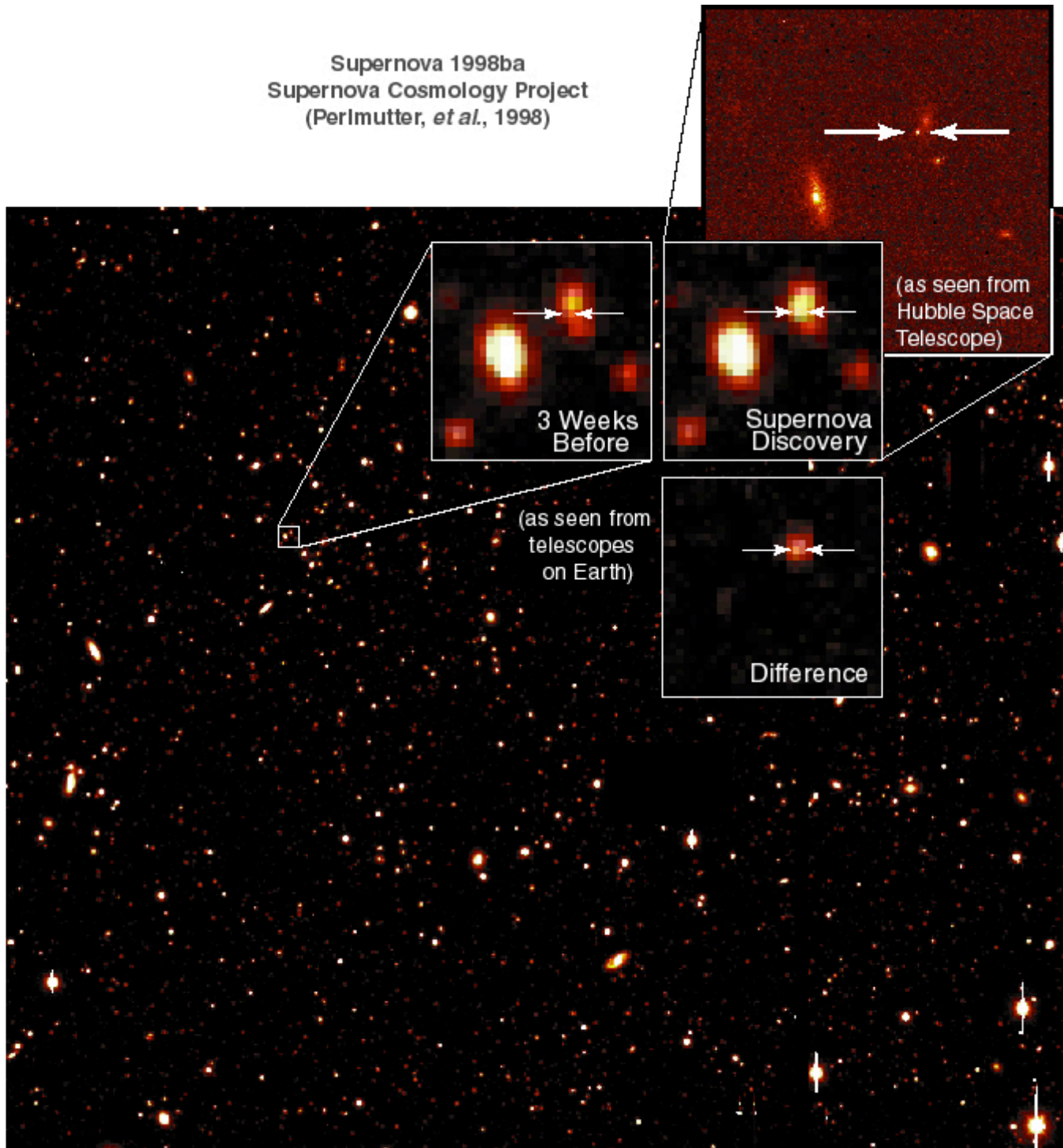
# V Band



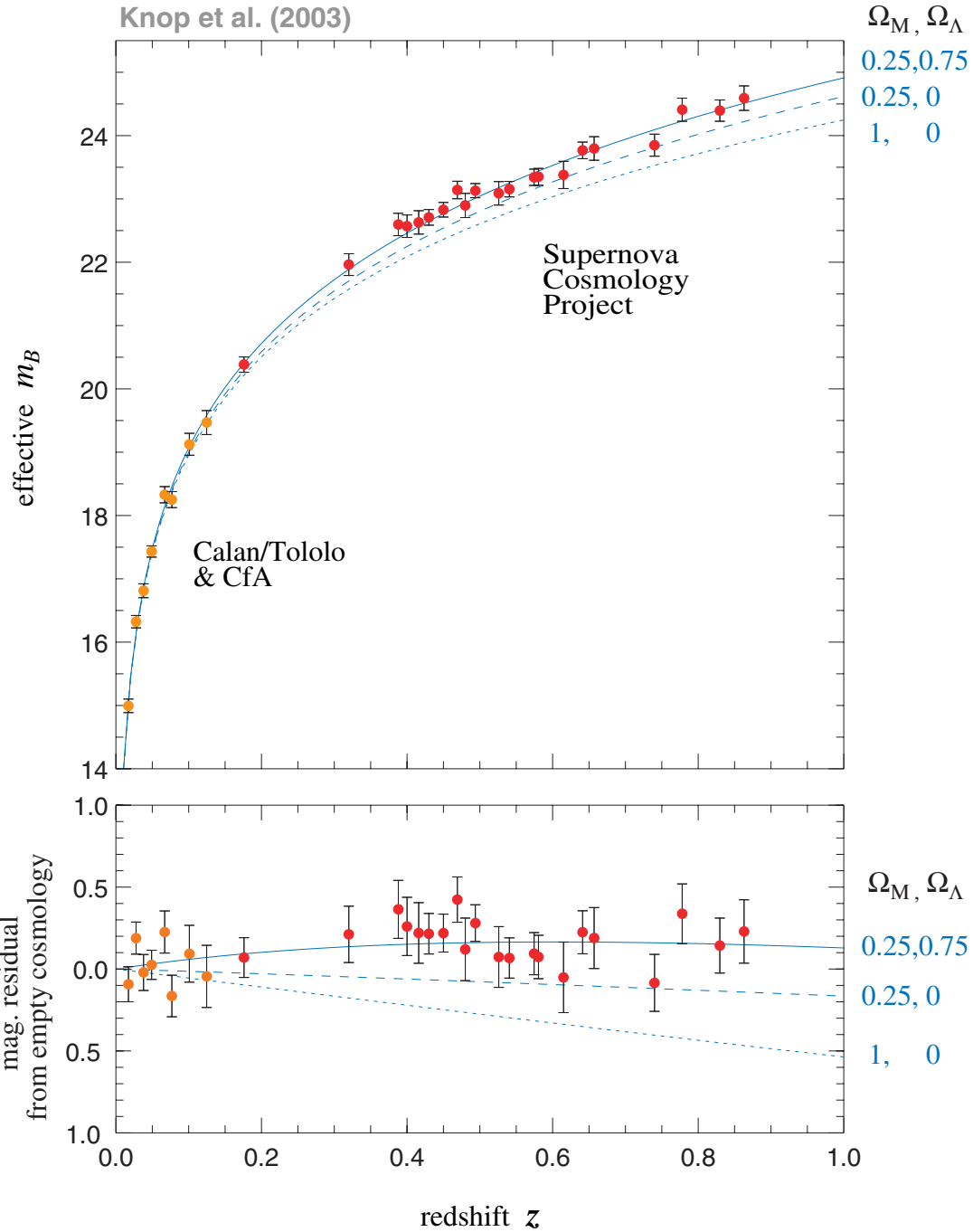
SN Cosmology Project



Supernova 1998ba  
Supernova Cosmology Project  
(Perlmutter, *et al.*, 1998)



Supernova Cosmology Project  
Knop et al. (2003)

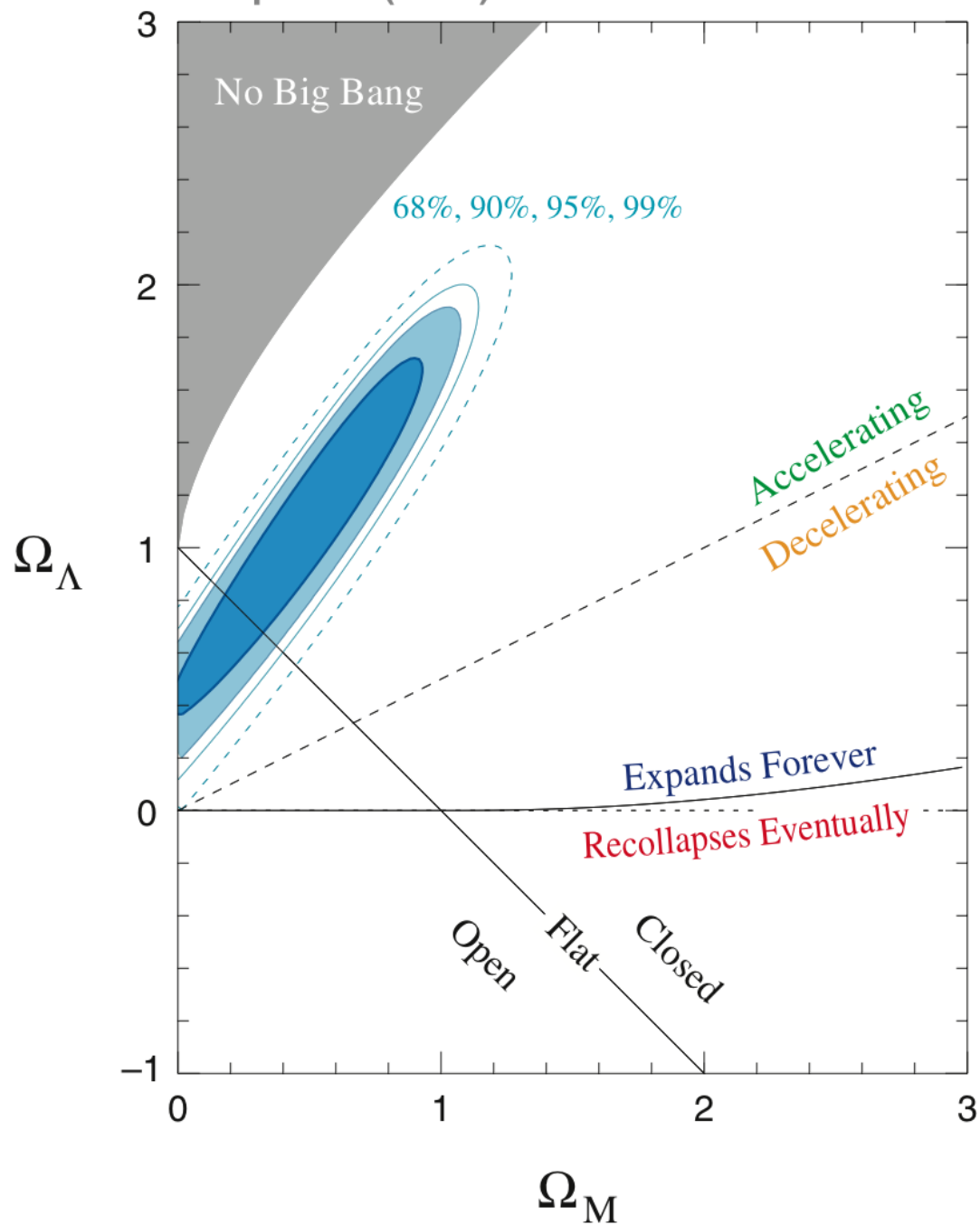




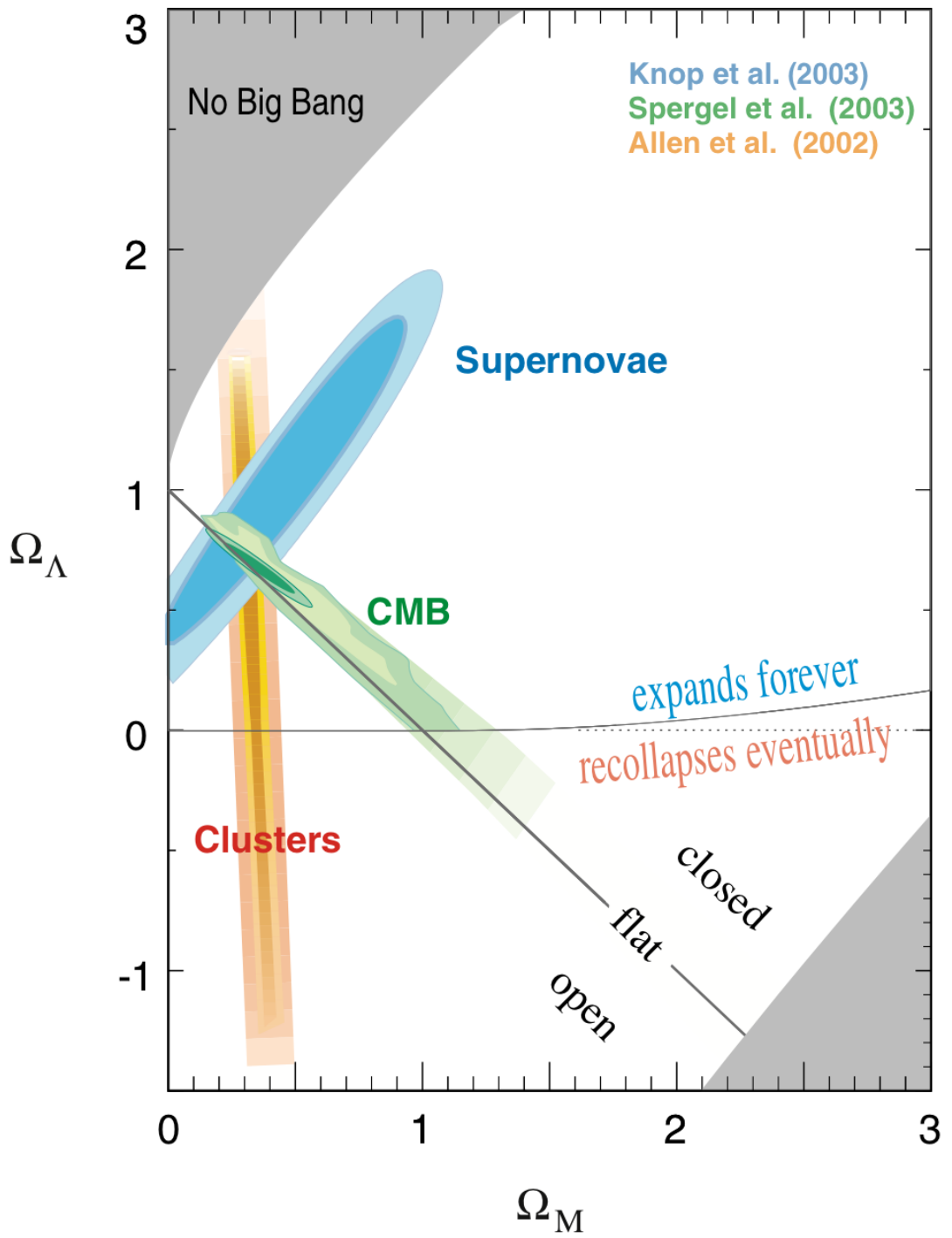
Johns Hopkins University; University Of California At Berkeley; Australian National University

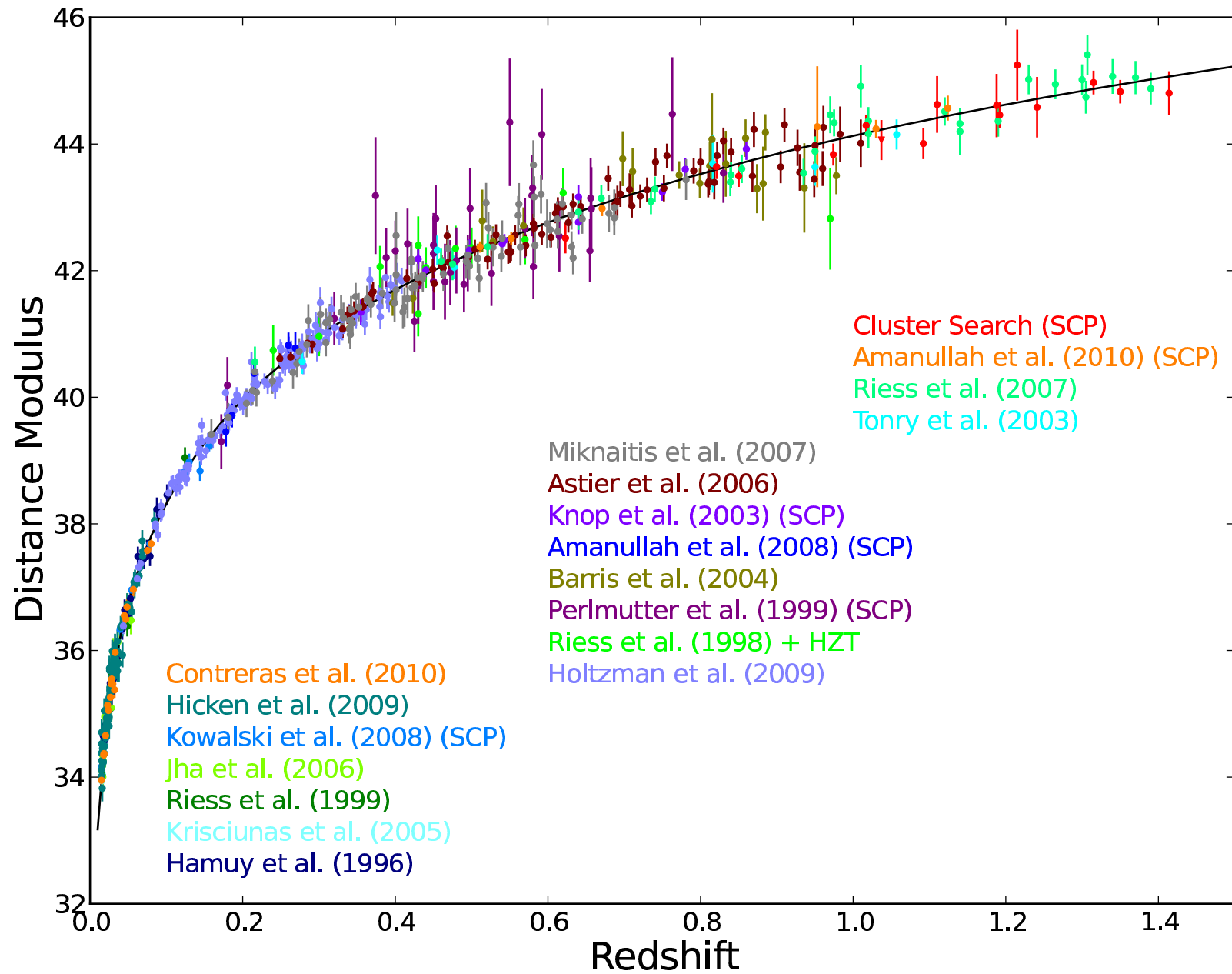
From left, Adam Riess, Saul Perlmutter and Brian Schmidt shared the Nobel Prize in physics awarded Tuesday.

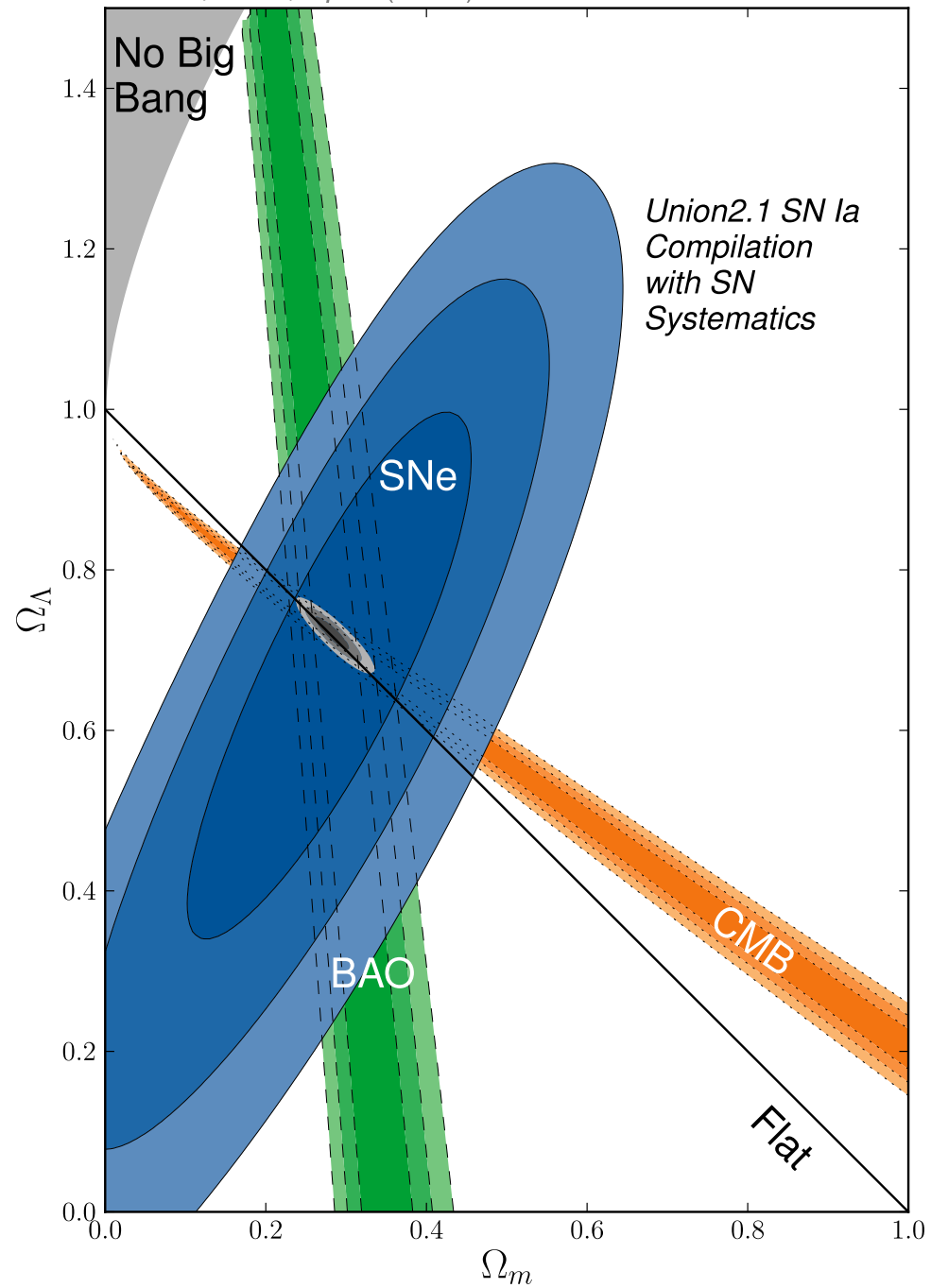
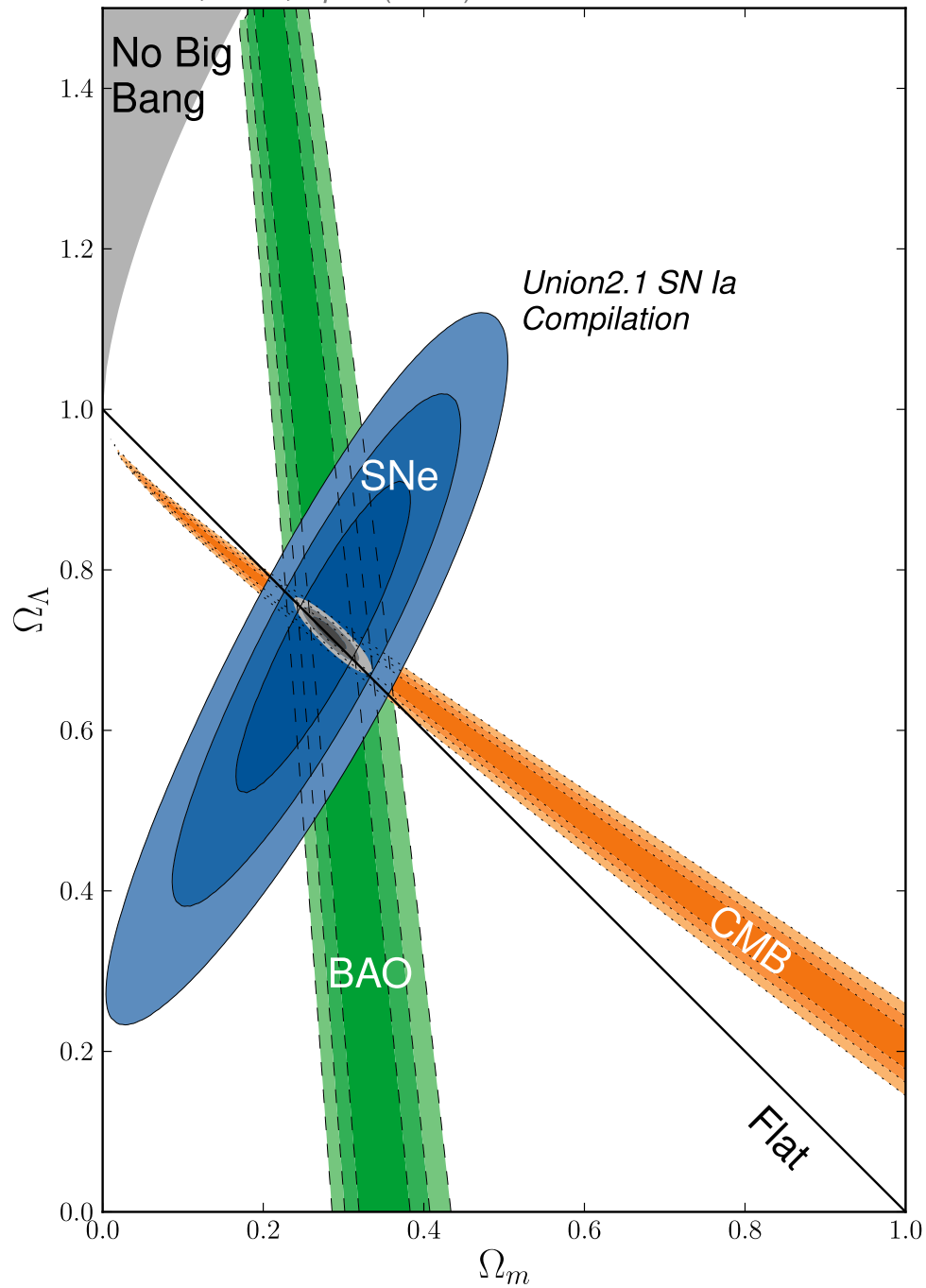
Supernova Cosmology Project  
Knop et al. (2003)



Supernova Cosmology Project







# Type Ia SNe in Distant Galaxy Clusters

