

W.M. Keck Observatory

Obsring Proposal Coversheet for Semester 2006A

Allocating Institution: UC

No. of nights Requested: 2

No. of nights estimated to complete the program
in addition to those requested here: 2

Is this the first application for this program? Y

Keck Proposal Numbers:

LRIS 2006A_U0151L

For UC proposals only

PI Position: Research

INVESTIGATOR INFORMATION

Principal Investigator: Dr. David Schlegel

E-mail: DJSchlegel@lbl.gov

Office Phone: 510-495-2595

Home Phone (optional):

FAX number: 510-486-6738

Address: Lawrence Berkeley National Lab MS 50R5032 1 Cyclotron Rd Berkeley, CA 94720

OBSERVING TEAM AND LOCATION

Co-Investigator(s): Prof. Saul Perlmutter, Greg Aldering, Kyle Barbary, Kyle Dawson, Vitaliy Fadeyev, Prof. Gerson Goldhaber, Marek Kowalski, Natalia Kuznetsova, Chris Lidman, David Rubin, Tony Spadafora

E-mail(s): saul@lbl.gov, GAldering@lbl.gov, kbarbary@berkeley.edu, KDawson@lbl.gov,
VAFadeyev@lbl.gov, gerson@lbl.gov, MPKowalski@lbl.gov, NVKuznetsova@lbl.gov, clidman@eso.org,
rubind@berkeley.edu, ALSpadafora@lbl.gov

Observer(s) projected to acquire the data: David Schlegel, Kyle Barbary, Kyle Dawson, David Rubin

E-mail(s): DJSchlegel@lbl.gov, kbarbary@berkeley.edu, KDawson@lbl.gov, rubind@berkeley.edu

Observer location: Waimea-HQ

Location Justification:

PROGRAM

Title: Decelerating and Dustfree: Type Ia SNe in High Redshift Galaxy Clusters

Summary of program (less than 100 words, for general distribution):

We were awarded 219 HST orbits to pursue low-extinction Type Ia SNe. By observing massive galaxy clusters at $z > 0.9$, we target elliptical galaxies in the deceleration regime of the universe. These galaxies are expected to be free of dust, providing a well-understood host galaxy environment. The data will make a significant improvement on cosmological constraints derived from SNe, and much larger improvement on systematic uncertainty. Spectroscopic observations using LRIS are essential in order to obtain redshift of the host galaxy, constraints on metallicity in the host galaxy, and typing of SN.

OBSERVING TIME PREFERENCE AND INSTRUMENT SELECTION

	Moon	D	G-DL	B	G-DE	D	G-DL	B	G-DE	D
	DATES	1 Feb	2-5 Feb	6-17 Feb	18-21 Feb	22 Feb - 2 Mar	3-6 Mar	7-18 Mar	19-22 Mar	23-31 Mar
Instrument	LST @midnight	8:30	8:40	9:10	9:40	10:05	10:30	11:05	11:35	12:00
	Nights									
LRIS	2	P	X	X	X	P	X	X	X	P
	Moon	G-DL	B	G-DE	D	G-DL	B	G-DE	D	G-DL
	DATES	1-4 Apr	5-16 Apr	17-20 Apr	21-30 Apr	1-4 May	5-16 May	17-20 May	21-29 May	30 May - 4 Jun
Instrument	LST @midnight	12:25	13:00	13:30	13:55	14:25	14:55	15:30	15:55	16:25
	Nights									
LRIS	2	X	X	X	P	X	X	X	P	X
	Moon	B	G-DE	D	G-DL	B	G-DE	D	G-DL	
	DATES	5-14 Jun	15-19 Jun	20-29 Jun	30 Jun - 5 Jul	6-14 Jul	15-19 Jul	20-30 Jul	31 Jul	
Instrument	LST @midnight	16:55	17:25	17:55	18:25	18:55	19:20	19:55	20:20	
	Nights									
LRIS	2	X	X	P	X	X	X	P	X	

Additional Information on Observing Time Preferences and Instrument Needs

Specific Dates required:

Dates to avoid:

Details of Special Requests: If granted time, we request that the observations not fall on successive nights, but rather be separated by at least one month in order to observe SNe discovered at different epochs.

Instrument Specific Requests:

Slitmask Requests: