# Caltech Submillimeter Observatory

#### PROPOSAL SUMMARY SHEET FOR TELESCOPE USE

TITLE:	
Proposal Date: 2013 April	
Type:	
extragalactic: continuum ( CO lines ( other (	planetary: continuum () lines ()
galactic: continuum $\bigcirc$ lines $\bigcirc$ circumstel. env. $\bigcirc$	YSOs () cloud structure () chemistry () other ()
ABSTRACT:	
Is this a resubmission of a previous proposal? no ()	yes ○ ; proposal number:
Is this a continuation of (a) previous proposal(s)? no ( yes ( ; proposal number(s):	
Have you attached a list of publications resulting from recent, prior CSO observations? yes O no O	
Nights requested for this period: first half () second half () full nights ()	
Special requirements:	
<b>Receivers:</b> 230 GHz ○ 345 GHz ○ 490 GHz ○ 650 GHz ○ 850 GHz ○ Barney (345 GHz) ○	
SHARC II: $450 \ \mu \text{m} \bigcirc 350 \ \mu \text{m} \bigcirc$ SHARP $\bigcirc$ Bolocam: $1.1 \ \text{mm} \bigcirc$ Other: $\bigcirc$	
Lines and frequencies (including redshifts):	
Zines and requencies (meraanig reasinius).	
	T
	Principal Investigator:
List of Objects (give most common names) with equatorial coordinates	name, institution, address, fax, e-mail:
with equatorial coordinates	
	Other Investigators (name, institution):
	Expected observers (at least 2):
(continue on separate sheet, if needed)	
( in coded)	

Attach to this form: scientific justification ( $\leq 2$  typed pages). See the latest CSO Call for Proposals for a complete list of additional required attachments. form: 2013 March

### Scientific Justification

Maximum 2 pages including time estimate. (Do not repeat the abstract.)

#### Time Estimate

 ${\bf Mandatory.}$ 

## Required Attachments

(Not counting against the 2 page limit.)

- List of publications by any proposal investigators using CSO data since 2010.
- List of all students and postdocs who have used the CSO since 2010.
- List of students who have obtained a PhD using the CSO.