“Open Questions in String Cosmology and Inflation”
24-25 October 2014
Jadwin Hall, Fourth Floor, Room 407
PCTS Seminar Room

Some Food for Thought

1) What are the prospects for future measurements of cosmological parameters?
   • What can we learn about inflation and/or quantum gravity from future measurements of low-point functions of primordial B modes and scalars?
   • What theoretical work is still needed?

2) What is the current status of string cosmology?
   • Is there any role for SUSY? Is there tension between low scale SUSY and high scale inflation? How much of a problem is moduli stabilization?
   • In the models we understand so far, what do we expect for the scale of inflation and number of e-foldings. Can the inflation scale be higher than the KK scale?
   • Does string theory allow for other cosmological scenarios? Are there any plausible alternatives to string/M-theory as a fundamental theory of physics?

3) What is the current status of dS/CFT and the Hartle-Hawking proposal?
   • Are the two proposals related?
   • Is time evolution during the initial de Sitter phase unitary and local?
   • Does inflation require tuning of initial conditions? How big of a problem is this?

4) What do we gain/lose by adding eternal inflation and the multiverse to the mix?
   • Is there a reasonable measure that can be used to make cosmological predictions?
   • Does string theory make any cosmological predictions? Does it exclude anything?