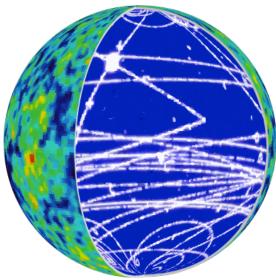
UC SANTA BARBARA Kavli Institute for Theoretical Physics

## Chalk Talk "Our Quantum Universe"



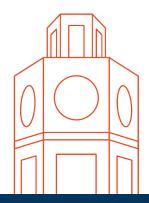
Observations of nearby galaxies by Edwin Hubble nearly a century ago have taught us that the universe is expanding, and that it must have been much hotter at early times. Observations at radio wavelengths have led to the detection of the cosmic microwave background, radiation left over from this early phase. Precise observations of this radiation have provided us with a snapshot of the universe around the time when the first atoms formed, only a few hundred thousand years after the Big Bang. Rather remarkably, the small fluctuations observed in the cosmic microwave background radiation teach us that their seeds were created when the universe was only fractions of a second old. Professor Flauger will review what we have learned about the early universe and what we may hope to learn in the coming years.

## Wednesday, March 4th

5:30 PM - Courtyard Reception 6:15 - 7:15 PM - Presentation and Discussion

## Attendance by Reservation only

RSVP by Friday, February 28th Online at <u>https://www.kitp.ucsb.edu/chalk-talk-rsvp</u> By phone 805-893-6350 or email <u>friends@kitp.ucsb.edu</u>





**Raphael Flauger** is a professor at the University of California, San Diego. He received his Ph.D from the University of Texas at Austin in 2009, and his research interests range from phenomenological questions in cosmology and particle physics to formal questions in quantum field theory and string theory. Currently, he is interested in extracting clues about fundamental physics from cosmological observations.

## Lot 10 parking

As you enter campus from Highway 217, turn right onto Mesa Rd, merge into the left lane, and at the stop light turn left into Parking Structure 10. A parking permit WILL BE PROVIDED to you upon entry. Please display the permit on your dashboard. KITP is the orange building right next door to the parking structure.