# **Theoretical Physics**

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the public



## VENUE & TICKET INFORMATION

Address Hillel at UCLA 574 Hilgard Avenue Los Angeles, CA 90024

Date: Sunday, July 29th 2007 Time: 1:00 PM – 4:30 PM

> Ticket information: http://www.ticketweb.com



**866 - 468 - 3399** Admission: \$5 General Seating

For more information about the Symposium please visit: http://www.MultiversalJourneys.org

Speakers subject to substitution

### **ABSTRACTS**

### The Beginning and End of Time: Life, The Universe, and Nothing

One can consider measuring time by the number of events that occur within some period. In this sense, more happened in the first second in the history of the universe than has occurred in the history of the universe since that moment. The first part of the lecture highlights some of the major milestones in that initial moment, and then moves on to discuss the future. Our current observations suggest we live in the worst of all universes for the long term future of life, and that our knowledge about the state of the universe will continue to decrease with time. In the far future we will be alone in a largely dark and empty universe.

#### Two-Time Physics: The Unified View From Higher Dimensional Space and Time

Evidence has been gathering that the ordinary formulation of physics, in a space-time with three space and one time dimensions, is insufficient to describe our world, just like shadows on walls alone are insufficient to capture the true essence of an object in a three dimensional room. Two-Time Physics reveals that our physical world in 3+1 dimensions is like a shadow of a highly symmetric universe in four space and two time dimensions. Amazingly, the best understood fundamental theory in Physics, the Standard Model of Particles and Forces is reproduced, and its "strong CP problem" is solved, as a field theory in 4+2 dimensions in the context of Two-Time Physics. This point of view provides new mathematical tools and new insights for understanding our universe. Evidence of the 4+2dimensional world can be found both at the macroscopic and microscopic scales in the form of hidden symmetries and "dualities", and such predictions of Two-Time Physics can be tested through theory and experiment. Two-Time Physics may assist in the quest to unify the Standard Model with Einstein's theory of General Relativity in a single unified theory. The most popular approach to that problem today, superstring theory, and its extension M theory, invoke 10 dimensions of space, but a single dimension of time. The path to success with formulating M theory, which so far eluded theoretical physicists, could well be adopting the more symmetric and higher dimensional Two-Time Physics approach. This would require adding one time dimension plus one space dimension, giving nature 11 space and two time dimensions. The Two-Time Physics version of M theory would have a total of 13 dimensions.

It's About Time: The Concept of Time, Cosmology and the Latest Theory about Time.

> Sunday, July 29 2007 Hillel Center, UCLA 574 Hillgard Avenue Los Angeles, CA 90024

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