

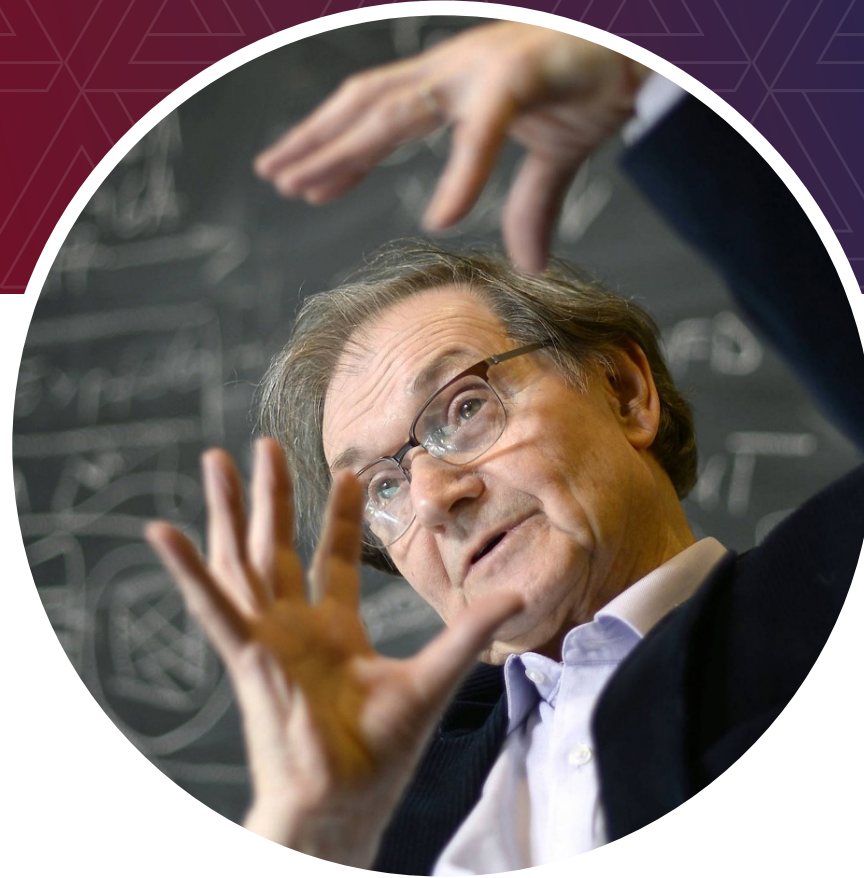


THE UNIVERSITY OF ARIZONA

Center for  
Consciousness Studies



FREE  
ONLINE  
EVENT



# Science & **ROGER PENROSE**

On the Occasion of his 90th Birthday and Nobel Prize

**August 3 – 6, 2021**

9:00 am – 12:30 pm - PST/Arizona

**4 Online Sessions**

**FREE REGISTRATION**

British physicist Sir Roger Penrose is widely acclaimed for fundamental advances in understanding the universe. He shared the 2020 Nobel Prize in physics for having shown that black holes are predictions of Einstein's general relativity. Roger has also proposed a solution to the measurement problem in quantum mechanics ('objective reduction', 'OR') which, he further suggests, is the origin of consciousness, leading to a theory of brain function ('orchestrated objective reduction', 'Orch OR').

And Roger's concept of Cyclical Conformal Cosmology ('CCC') posits a serial, eternal universe, with the Big Bang preceded by previous aeons. The conference will cover these 4 major inter-related areas of Roger's work.

## **Tuesday August 3, 2021**

9:00 am to 12:30 pm PST

### Overview

**Sir Roger Penrose** (*Nobel Laureate*)

9:00 am – 10:30 am

### Black Holes

**Reinhard Genzel** (*Nobel Laureate*)

10:30 am – 11:15 am

**Roger Blandford**

11:15 am – 12:00 noon

### Discussion

12:00 noon – 12:30 pm

## **Wednesday August 4, 2021**

9:00 am to 12:30 pm PST

### Quantum Measurement – Objective Reduction (OR)

**Ivette Fuentes**

9:00 am – 9:45 am

**Hendrik Ulbricht**

9:45 am – 10:30 am

**Dirk Bouwmeester**

10:30 am – 11:15 am

**Philip Stamp**

11:15 am – 12:00 noon

### Discussion

12:00 noon – 12:30 pm

## **Thursday August 5, 2021**

9:00 am to 12:30 pm PST

### Consciousness - Orch OR

**Stuart Hameroff**

9:00 am – 9:45 am

**Greg Scholes**

9:45 am – 10:30 am

**Alysson Muotri**

10:30 am – 11:15 am

**Panel and Discussion - Quantum  
biology of microtubules**

11:15am – 12:30 pm

• Jack Tuszyński (Chair)

• Aarat Kalra

• Travis Craddock

• Aristide Dogariu

• M. Bruce MacIver

• Anirban Bandyopadhyay

## **Friday August 6, 2021**

9:00 am to 12:30 pm PST

### Pre-Big Bang Universe – Cyclical Conformal Cosmology

**Paul Tod**

9:00 am – 9:45 am

**Brian Keating**

9:45 am – 10:30 am

**Krzysztof Meissner**

10:30 am – 11:15 am

**Vahe Gurzadyan**

11:15 am – 12:00 noon

### Discussion

12:00 noon – 12:30 pm

Sponsored by:

UArizona Center for Consciousness Studies - Stuart Hameroff, Director •

Dr. Mani Bhaumik, UCLA • Alvin J. Clark Foundation