

Symposium in Honor of Dr. Richard Arnowitt

Texas A&M, College Station, Texas

September 19-20, 2014

Program

Friday, September 19, 2014*

9:00 a.m. – 9:25 a.m. *Pastries and Coffee*

9:25 a.m. – 9:30 a.m. *Opening Remarks*

H. Joseph Newton, Dean, College of Science

Chair: David M. Lee, Texas A&M University

9:30 a.m. – 10:15 a.m. *A One-World formulation of quantum mechanics*

Charles Misner, University of Maryland

10:15 a.m. – 11:00 a.m. *Reminiscences of my work with Richard Arnowitt*

Pran Nath, Northeastern University

11:00 a.m. – 11:30 a.m. *Break*

Chair: Wolfgang Schleich, Texas A&M and Ulm Universities

11:30 a.m. – 12:15 p.m. *Yang-Mills origin of gravitational symmetries*

Michael Duff, Imperial College London

12:15 p.m. – 1:30 p.m. *Lunch*

Chair: Roy Glauber, Harvard and Texas A&M Universities

1:30 p.m. – 2:15 p.m. *Quantum mechanics without state vectors*

Steven Weinberg, University of Texas at Austin

2:15 p.m. – 2:35 p.m. *Travels with Julian: How Schwinger resolved a disagreement between Lamb and Wigner*

Marlan Scully, Texas A&M and Princeton Universities

2:35 p.m. – 3:00 p.m. *Interconnection between particle physics and cosmology*

Bhaskar Dutta, Texas A&M University

3:00 p.m. – 3:30 p.m. *Break*

Chair: Edward S. Fry, Texas A&M University

3:30 p.m. – 4:15 p.m. *The Legacy of ADM*

Stanley Deser, Brandeis and Caltech

4:30 p.m. – 4:30 p.m. *Break*

4:30 p.m. – 5:00 p.m. *Piano music by **Michael Arnowitt** played for his father Richard before his passing*

5:00 p.m. – 6:00 p.m. *Memorial Tributes*

6:00 pm – 7:00 p.m. *Reception*

* All talks to be given in the IQSE Seminar Room 578 of the Mitchell Physics Building

Saturday, September 20, 2014* (Chair: Roland Allen, Texas A&M University)

- 8:30 a.m. – 9:00 a.m. *Pastries and Coffee*
- 9:00 a.m. – 9:25 a.m. *Evanescent laws -- gravity evades energy conservation and eats entropy on the cosmological scale*
Charles Misner, University of Maryland
- 9:30 a.m. – 9:55 a.m. *Colliders of the World: Richard Arnowitt's guiding vision for discovery through two generations*
Peter McIntyre, Texas A&M University
- 10:00 a.m. – 10:25 a.m. *Supergravity and beyond*
Ergin Sezgin, Texas A&M University
- 10:30 a.m. – 10:55 a.m. *Break*
- 11:00 a.m. – 11:25 a.m. *Dark Energy at Texas A&M University*
Nicholas Suntzeff, Texas A&M University
- 11:30 a.m. – 11:55 p.m. *The LZ search for dark matter*
Robert Webb, Texas A&M University
- 12:00 p.m. – 12:25 p.m. *The SuperCDMS search for dark matter*
Rupak Mohapatra, Texas A&M University
- 12:30 p.m. – 2:00 p.m. *Lunch*
- 2:00 p.m. – 2:25 p.m. *Probing high-temperature quark matter at the Relativistic Heavy Ion Collider*
Saskia Mioduszewski, Texas A&M University
- 2:30 p.m. – 2:55 p.m. *Collider Physics at Fermilab and CERN*
David Toback, Texas A&M University
- 3:00 p.m. – 3:25 p.m. *Astronomy beyond redshift 10*
Lifan Wang, Texas A&M University
- 3:30 p.m. – 4:00 p.m. *Break*
- 4:00 p.m. – 4:30 p.m. *Making a laser out of thin air: the nitrogen guide star?*
Gordon Chen, Marlan Scully, and Anatoly Svidzinsky, Texas A&M University
- 4:35 p.m. – 5:00 p.m. *Microscopic theory of phase transitions: Bose-Einstein condensation in an interacting gas*
Vitaly Kocharovsky, Texas A&M University

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