



# Symposium

## Albert Einstein Legacy - A One Hundred Years Perspective

### Sunday, April 10

**20:00**      **Opening and Greetings**

**Chair: Prof. Alexander Levitzki**

Chairman of the Natural Sciences Division, The Israel Academy of Sciences and Humanities

**Greetings: Prof. Menahem Yaari**  
President, The Israel Academy of Sciences and Humanities

**Introduction: Prof. Raphael D. Levine**  
The Hebrew University of Jerusalem

### **Albert Einstein Memorial Lecture**

The Einsteinian Perspective

**Prof. Sir Roger Penrose**  
Oxford University

### Monday, April 11

**9:45**      **Greetings: Mr. Moshe Katsav**  
The President of the State of Israel

**10:00 - 12:15**      **Session 1. Broadening Horizons of Physics**

Chair: **Prof. Joshua Jortner**  
Tel-Aviv University

**10:00 - 10:45**      The View Behind the Kelvin Clouds  
**Prof. Yuval Ne'eman**  
Tel-Aviv University



- 10:45 - 11:30 Einstein and the Quest for a Unified Theory  
**Prof. David Gross**  
University of California, Santa Barbara
- 11:30 - 12:00 Discussion
- 12:00 - 12:15 Musical Interlude
- LUNCH
- 13:00 - 15:00** **Session 2. Cultural and Political Aspects**  
Chair: **Prof. Ruth Arnon**  
Vice-President, The Israel Academy of Sciences and Humanities
- 13:00 - 13:45 The Emergence of the Einstein Phenomenon: Reconciling Science, Politics, and Personal Identity after World War I  
**Prof. Diana Kormos Buchwald**  
California Institute of Technology
- 13:45 - 14:30 Einstein and Relativity in the Context of Weimar Culture  
**Prof. David Rowe**  
Johannes Gutenberg University, Mainz
- 14:30 - 15:00 Discussion
- 15:00 - 15:20 Coffee
- 15:20 - 17:30** **Cultural and Political Aspects**



15:20 - 16:05 Einstein Recovers Judaism and Discovers Politics  
**Prof. Robert Schulmann**  
Boston University (formerly)

16:05 - 16:50 Einstein and Nuclear Weapons  
**Prof. Sam Schweber**  
Brandeis University

16:50 - 17:20 Discussion

17:20 - 17:30 Musical Interlude

## **Tuesday, April 12**

9:30 - 13:20 **Session 3. The "Annus Mirabilis" and its Aftermath**  
Chair: **Prof. Jacob Ziv**  
Technion – Israel Institute of Technology

9:30 - 10:15 Einstein's Electrodynamical Pathway to Special Relativity  
**Prof. John D. Norton**  
University of Pittsburgh

10:15 - 11:00 1905 – The Miraculous Year of Unification  
**Prof. Hanoch Gutfreund**  
The Hebrew University of Jerusalem

11:00 - 11:20 Coffee

11:20 - 12:05 Minkowski, Relativity and Einstein's Changing Attitudes to Mathematics  
**Dr. Leo Corry**  
Tel-Aviv University



12:05 – 12:50 Post-Positivism: Einstein and a Priori Constraints on Field Theory  
**Prof. Thomas A. Ryckman**  
Stanford University

12:50 - 13:20 Discussion

LUNCH

**14:00 - 16:00** **Session 4. Unified Theory and Gravitation**

Chair: **Prof. Igal Talmi**

The Weizmann Institute of Science

14:00 - 14:45 The Notion of Spacetime: Do we Need a Further Revolution?  
**Prof. Sir Roger Penrose**  
Oxford University

14:45 - 15:30 Information and Einstein's Theory of Gravitation  
**Prof. Jacob Bekenstein**  
The Hebrew University of Jerusalem

15:30 - 16:00 Discussion

16:00 - 16:20 Coffee

**16:20 - 17:35** **Session 5. Astrophysics**

Chair: **Prof. Eliezer Rabinovici**

The Hebrew University of Jerusalem

16:20 - 17:05 Large-Scale Astrophysics and the Cosmological Constant  
**Prof. Avishai Dekel**  
The Hebrew University of Jerusalem



17:05 - 17:35 Discussion

### **Wednesday, April 13**

#### **9:30 - 11:00 Session 6. The Modernity of Einstein's Ideas**

Chair: **Prof. Yoseph Imry**

The Weizmann Institute of Science

9:30 - 10:15 Atoms and Photons - the Modernity of Einstein's Ideas

**Prof. Claude Cohen-Tannoudji**

College de France and Ecole Normale Superieure

10:15 - 11:00 The Architecture of Complexity: Bose-Einstein Condensation in Networks

**Prof. Albert-Laszlo Barabasi**

University of Notre Dame

11:00 - 11:20 Coffee

#### **11:20 - 13:20 Session 7. Einstein and Quantum Mechanics**

Chair: **Prof. Miriam Cohen**

Ben-Gurion University of the Negev

11:20 - 12:05 What is Really There, in the Quantum Domain?

**Prof. Yakir Aharonov**

Tel-Aviv University

12:05 - 12:50 The Einstein-Podolsky-Rosen (EPR) Argument and Quantum Mechanics - from an Embarrassment to an Asset

**Prof. Itamar Pitowsky**

The Hebrew University of Jerusalem



12:50 - 13:20

Discussion

LUNCH

**14:00 - 16:00**

**Session 8. Physics, Geometry and Philosophy**

Chair: **Prof. Dan Shechtman**

Technion – Israel Institute of Technology

14:00 - 14:45

Einstein on Space, Time, and Geometry

**Prof. Michael Friedman**

Stanford University

14:45 - 15:30

From "Experience and Geometry" to "Geometry and Experience"

**Prof. Yemima Ben-Menahem**

The Hebrew University of Jerusalem

15:30 - 16:00

Discussion

16:00 - 16:20

Coffee

**16:20 - 17:30**

**Session 9. Einstein and Religion**

Chair: **Prof. Moshe Deutsch**

Bar-Ilan University

16:20 - 16:30

Musical Interlude

16:30 - 17:15

Einstein and Religion

**Prof. Max Jammer**

Bar-Ilan University

17:15 - 17:30

Discussion



17:30

**Closing:**

**Prof. Menahem Yaari**

The Israel Academy of Sciences and Humanities

**Prof. Yuval Ne'eman**

Tel-Aviv University

**Prof. Hanoch Gutfreund**

The Hebrew University of Jerusalem