

PREVIOUS WINNERS



- 2014 Prof. **MICHAL BIRAN**
Departments of Asian Studies, and Islamic and Middle Eastern Studies, Institute of Asian and African Studies
Faculty of Humanities
Inner Asian history: Mobility Empire and Cross-Cultural Contacts in Mongol Eurasia
- 2013 Prof. **ROI BAER**
Institute of Chemistry and Fritz Haber Minerva Research Center for Molecular Dynamics, Faculty of Science
Developing New Theoretical and Computational Techniques that Enable Determination of the Energy Levels of Charge Carriers
in Large Molecular Systems and Nanocrystals
- 2012 Dr. **ERAN MESHORER**
Department of Genetics, Silberman Institute of Life Sciences, Faculty of Science
Using Genome-Wide Approaches and Sophisticated Imaging Techniques to Understand Genome Plasticity in Stem Cells
- 2011 Prof. **DAVID WEISBURD**
Institute of Criminology, Faculty of Law
Pioneering Research on White Collar Crime, Policing and Crime Prevention
- 2010 Prof. **MERAV AHISSAR**
Department of Psychology and Program in Cognitive Sciences, Faculty of Social Sciences
The Neuro-Cognitive Basis of Reading Disability - The "Anchoring-Deficit" Hypothesis
- 2009 Prof. **ISAIAH TUVIA (SHY) ARKIN**
Department of Biological Chemistry, Silberman Institute of Life Sciences, Faculty of Science
Structural Biology of Membrane Proteins, Focusing on Pathogen's Ion Channels and Ion Pumps
- 2008 Prof. **URI BANIN**
Institute of Chemistry and the Center for Nanoscience & Nanotechnology, Faculty of Science
Major Advancements in the Science and Technology of Nanocrystals and the Development of Hybrid Multifunctional Nanoparticles
- 2007 Prof. **HOWARD (CHAIM) CEDAR**
Department of Developmental Biology and Cancer Research, Institute for Medical Research Israel-Canada, Faculty of Medicine
Establishing the Cornerstone of Epigenetics and Its Role in Human Development



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The Authority for Research and Development
The Hebrew University of Jerusalem

THE KLACHKY PRIZE

FOR THE ADVANCEMENT
OF THE FRONTIERS OF SCIENCE

AT THE HEBREW UNIVERSITY OF JERUSALEM



תשע"ה 2015

<http://www.facebook.com/JanisDesign>

Project editor: Shoshana Glatzer

Project coordinator: Ayelet Sagiv

90
years

האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

KLACHKY PRIZE

for the Advancement
of the Frontiers of Science

The Klachky Prize for the Advancement of the Frontiers of Science is an annual prize founded by the late Ms. Rachel Klachky. The prize is given to Hebrew University faculty members or academic units for their achievements in:

The Advancement of Science

*The Advancement
of Scientific Research*

*The Advancement
of Scientific Knowledge*

*The Advancement
of the Frontiers of Science*

New Academic Developments

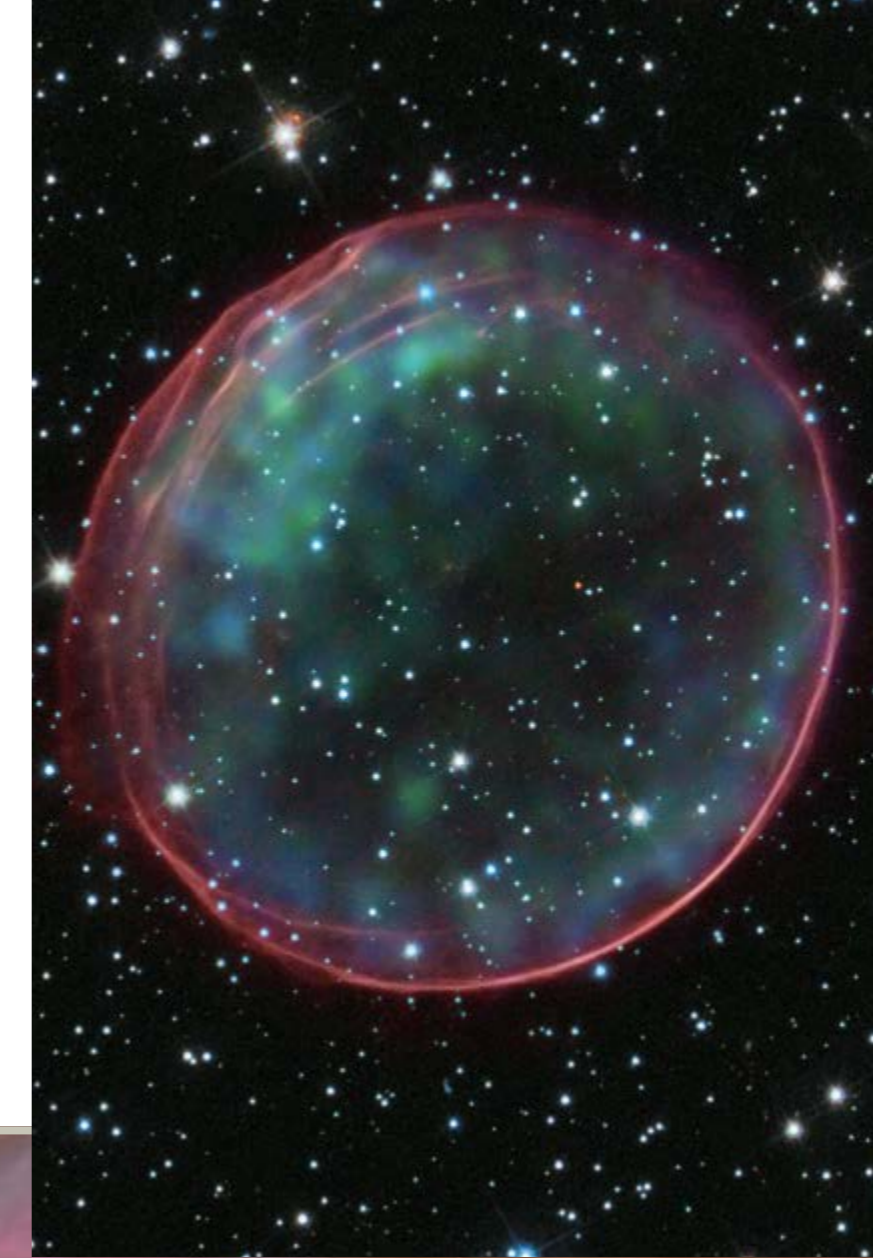
Academic Ventures

The Klachky Prize for 2015



*Prof. Re'em Sari
Racah Institute of Physics
Faculty of Science*

Re'em Sari received his Ph.D. from the Hebrew University in 1998. In 2007, he returned to the Hebrew University as a full professor after being an associate professor at Caltech. He received numerous awards including the Bessel Award from the Humboldt Foundation, the Bruno Prize from the Rothschild Foundation, the Frenkiel Award from the American Physical Society and the Warner Prize from the American Astronomical Society. He was awarded a Packard Fellowship, a Sloan Fellowship, a Radcliffe Fellowship and a European Research Council Award. Professor Sari served as the Chair of the Bloomfield Science Museum and as the head of the Amirim Teva Program - the honors program for undergraduate students at the Hebrew University. He was elected to the Israel Young Academy (under the aegis of the Israel Academy of Sciences and Humanities) in 2012.



Prof. Re'em Sari's research is spread over a wide range of topics in theoretical astrophysics: from formation of planets through galactic dynamics to explosion of a star as a Supernova or a Gamma Ray Burst. He described the afterglow emission that follows Gamma Ray Bursts and predicted that some of them should be followed by bright optical flashes. This theory is now routinely used to analyze these cosmic explosions. He analyzed the interaction between planets and the discs from which they form and showed that it could explain the strange non-circular orbits of planets orbiting other stars. He showed how interaction between two planets around the same star can change the time at which they transit in front of their star. This theory is now used to interpret deviation of transit time from strict periodicity allowing determination of masses and densities of these planets, therefore constraining the composition of these new alien worlds.

Finally, Prof. Sari showed that the time scale for building planets in the outer solar system could be significantly shorter if the building blocks are small enough so collisions between them are frequent. He contributed to the understanding of the properties of small bodies in our own solar system, including explanation of the size distribution of Kuiper belt bodies and a theory for their binarity as well as the theory of tidal evolution of asteroids, their spins and their structure as rubble piles.

Understanding Our Universe

The Donor



Rachel Klachky (1925-2001) was born in Mexico. Married to the late Engineer Manuel Klachky, she was a central figure in the Jewish Community of Mexico, and was one of the founding members of the Mexican Friends of the Hebrew University.

In 1997, she received an Honorary Fellowship from the Hebrew University for her outstanding contributions to the State of Israel and the Hebrew University of Jerusalem. She wholeheartedly

supported worthy causes, including the absorption of new immigrants, scholarships for students, and support of various scientific research projects, and studies on superconductivity at the Hebrew University.

After she passed away, her sons, Roberto and Leopoldo, continued her legacy of support to the Hebrew University of Jerusalem. The Klachky Prize has been awarded since 2003.

