



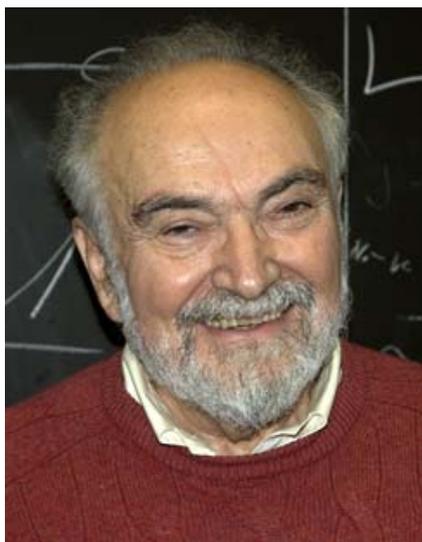
## JOEL LEBOWITZ, a man of science and peace, the award-winner of the 2014 GRANDE MÉDAILLE of the French Académie des Sciences

**Award ceremony Tuesday 14 October 2014, 3 PM to 5 PM**

Under the Cupola of the **Institut de France**, 23 quai de Conti, Paris, France

In 2014, the Académie des Sciences awards its highest distinction to the American scientist Joel LEBOWITZ, a grandmaster of "statistical physics" and a leading figure in the fight for human rights. Under the Cupola, the prestigious laureate, Professor of Mathematics and Physics at Rutgers University (New Brunswick), will give an account of his scientific and personal life. Beyond being a talented researcher and « transmitter », Joel Lebowitz embodies humanism and the universality of science.

In addition to his outstanding contributions to science and its transmission, Joel L. Lebowitz devoted his life to standing up for those who had been persecuted or deprived of their rights and fundamental freedoms. Born in 1930 in a Jewish family in Taceva (then in Czechoslovakia, now in Ukraine), he was deported to Auschwitz with all his family, of which he was the only survivor. After the war, he studied in the United States, graduated from Brooklyn College and obtained a PhD from Syracuse University in 1956 under Peter G. Bergmann's supervision. After positions as a teacher at Yale University, which brought him close to Nobel Prize winner Lars Onsager, then at the Stevens Institute of technology in Hoboken, he was from 1959 to 1976 Assistant Professor then Professor at the Belfer Graduate School of Science of Yeshiva University, New York. Since 1977, he holds the prestigious position of George William Hill Professor of Physics and mathematics at Rutgers University, New Jersey. There, he is the director of the Center for Mathematical Sciences Research.



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<http://www.math.rutgers.edu/~lebowitz/>

Joel Lebowitz has established himself as a world leader in statistical physics, a discipline that studies the relations between the dynamics of the billions of microscopic constituents of matter and the resulting behaviour of matter itself on a macroscopic level, regardless of its state (solid, fluid, gas or a transition between these phases...). To understand the dynamics of these infinite systems, whether in or out of equilibrium, probabilities, mathematics and physics (be it quantum or classical physics) provide help. As the author or co-author of close to 600 articles, Joel Lebowitz has brought major contributions to the understanding of the thermodynamic properties of gas, the theory of phase transition (liquid-gas, etc.), mathematical representation, and the numerical simulation of model systems. Among his most-acclaimed results, he and Elliott Lieb provided the proof of the stability of matter, based on its global electric neutrality and quantum mechanics. Elected a member of the US National Academy of Sciences in 1980 (in Applied Physics and Mathematics), *Doctor Honoris Causa* at several foreign universities, *Visiting scientist* in a number of research institutes, including the French Institut des Hautes Etudes Scientifiques in Bures-sur-



Yvette and the Henri Poincaré Institute in Paris, Joel Lebowitz has received many a prestigious award, including the Boltzmann Medal (1992), the Henri Poincaré Prize of the International Association of Mathematical Physics (2000) and the Max Planck Medal (2007).

Among the many scientific responsibilities Joel Lebowitz has endorsed (Director of his department, President of the *New York Academy of sciences*, etc.), two initiatives have particularly singled him out as he organizer and soul of statistical physics:

- The Journal of Statistical Physics, a publication of reference, of which he has been the editor-in-chief since 1975;

- the *Statistical Mechanics Conferences*, an original series of biannual seminars which were launched in New York in 1959 (first *Yeshiva* then *Rutgers* meetings). He will chair their 112th conference in December.

Beyond his work as a scientist, Joel Lebowitz embodies the universality of science. As President of the *Committee of Concerned Scientists* since its foundation in 1982, he has always been actively involved in favour of dissidents unfairly threatened (Sakharov in particular) and opposes any discrimination, making sure, for example, to balance visits to Israeli institutes with conferences held at Palestinian universities. When he proposed him for election to the plenary assembly of members of the Academy, physicist Edouard Brézin, the former president of the Académie des Sciences, now Co-chair of its Committee for the Defence of Scientists' Rights (CODHOS), expressed his greatest admiration for such a character, thus confirming his fellow David Ruelle's praise: « *Joel Lebowitz, as a scientific and a human being, has significantly contributed to making this world more liveable.* ».

**The Grande Médaille of the Académie des Sciences** is awarded every year to a foreign scientist whose contribution to the development of science has been decisive in terms of research, international standing and stimulating influence, so seminal indeed as to gain proper following from researchers. In 2014, the laureate had to be affiliated with the first disciplinary section of the Academy: mathematics, physics, mechanics and informatics, sciences of the world and their applications, sciences of the universe, and their applications. Laureates since 2008: Susan Solomon, Robert Weinberg, Michael Francis Atiyah, Avelino Corma, Adi Shamir, Joan Steitz.

**Find out more at:** <http://www.academie-sciences.fr/en/awards.htm>

## Tuesday 14 October

Following Joel Lebowitz's presentation and response under the Cupola, the Académie des Sciences will introduce several of its 2014 Grand Prix award-winners.

The list of the 2014 laureates of the Académie des Sciences Prizes is online:  
[www.academie-sciences.fr/activite/prix.htm](http://www.academie-sciences.fr/activite/prix.htm)