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Laszlo Lovasz reçoit le Prix Kyoto 2010

- Extra-muros -



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[Dr. László Lovász Receives 2010 Kyoto Prize in "Basic Sciences" for Outstanding Contributions to Mathematics](#)

Pioneering mathematician to speak at UC San Diego in April 2011



Laureate László Lovász

KYOTO, JAPAN November 10, 2010 The non-profit Inamori Foundation (President : Dr. Kazuo Inamori) today presented Dr. László Lovász with its 26th annual Kyoto Prize in “Basic Sciences,” which focuses for 2010 on Mathematical Sciences.

A citizen of both the United States and Hungary, Dr. Lovász, 62, received the award for his outstanding contributions to the academic and technological possibilities of the mathematical sciences. He currently serves as both director of the Mathematical Institute at Eötvös Loránd University in Budapest and as president of the International Mathematics Union. Among many positions held throughout his distinguished career, Dr. Lovasz has also served as a senior research member at Microsoft Research Center and as a professor of computer science at Yale University.

Dr. Lovász's Achievements Considered one of the world's preeminent contemporary mathematicians, Dr. Lovász has provided a link among numerous branches of mathematics through his advanced research on discrete structures. Many of his concrete research results are presented in the form of elucidated properties of graphs and their algorithmic designs. However, his methodologies go beyond the framework of graph theory to exert significant influence on a broad spectrum of mathematical sciences, including discrete mathematics, combinatorial optimization and theoretical computer science.

Dr. Lovász has solved several monumental problems, including the “weak perfect graph conjecture,” a well-known open problem in graph theory ; and the famous and long-standing open problem on Shannon capacity in the field of

information theory. In this work he introduced quadratic forms to express discrete structures. This served as the very first instance of semi-definite programming, which went on to become one of the central topics in mathematical optimization. By further advancing those pioneering achievements, he played a role in developing the geometric methodology of algorithms based on the ellipsoid method, which led to the solution of a major open problem on submodular function minimization.

His contributions are significant in clarifying the deeper relationship between computation theory and optimization theory. However, he is perhaps best known for the widely used Lovász local lemma, in which he provides a fundamental probabilistic tool for the analysis of discrete structures, and contributes to the creation of a framework for probabilistically checkable proofs. The basis algorithm, commonly known as the “LLL algorithm,” has contributed to the construction of other important algorithms, and has become a fundamental tool in the theory of cryptography.

Other 2010 Kyoto Prize Laureates In addition to Dr. Lovász, this year's Kyoto Prize laureates include :

" In “Advanced Technology :” Dr. Shinya Yamanaka (citizenship : Japan), 48, a medical scientist, senior investigator at the Gladstone Institute of Cardiovascular Disease in San Francisco ; professor at Kyoto University ; and director of CiRA, Kyoto University's Center for iPS Cell Research and Application, who pioneered a technology for producing induced pluripotent (iPS) stem cells without the use of embryos.

" In “Arts and Philosophy :” Mr. William Kentridge (citizenship : South Africa), 55, a visual artist from Johannesburg, whose wide-ranging activities encompass animation, stage direction and writing. All three 2010 Kyoto Prize laureates will reconvene April 4-6, 2011 for the tenth annual Kyoto Prize Symposium in San Diego, California.

The Kyoto Prize The Kyoto Prize is Japan's highest private award for global achievement, honoring significant contributions to the betterment of humankind. It consists of a diploma, a 20-karat-gold Kyoto Prize medal, and a cash gift totaling 50 million yen (approximately US\$610,000) per category.

The Inamori Foundation The non-profit Inamori Foundation was established in 1984 by Dr. Kazuo Inamori, founder and chairman emeritus of Kyocera and KDDI Corporation. The Foundation created the Kyoto Prize in 1985, in line with Dr. Inamori's belief that a human being has no higher calling than to strive for the greater good of society, and that the future of humanity can be assured only when there is a balance between our scientific progress and our spiritual depth. As of the 26th Kyoto Prize ceremony (November 10, 2010), the prize has been awarded to 84 individuals and one foundation collectively representing 15 nations. Individual laureates range from scientists, engineers and researchers to philosophers, painters, architects, sculptors, musicians and film directors. The United States has produced the most recipients (34), followed by Japan (14), the United Kingdom (12), and France (8).