

US Physicist Jarzynski Wins Benjamin W. Lee Professorship for Thermodynamics Breakthrough

Recognized for 1997 Jarzynski equality overcoming classical thermodynamics limitations

2026 BENJAMIN W. LEE PROFESSORSHIP

SPECIAL LECTURE SERIES

Colloquium Searching for Maxwell's demon:
feedback control at the nanoscale
Oct. 19 (Mon.), 2026 | 14:00 – 15:30 (KST)

Lecture Nonequilibrium statistical physics,
generative AI, and free energy estimation
Oct. 20 (Tue.), 2026 | 10:00 – 11:30 (KST)

APCTP & Online, 5th Floor, Hogil Kim Memorial Bldg., POSTECH, Pohang



Prof. Christopher Jarzynski
(University of Maryland)

Christopher Jarzynski is an outstanding theoretical physicist working on statistical physics, with an emphasis on far-from-equilibrium phenomena. He has worked on many different topics, among them problems of biophysical interest, numerical schemes for estimating thermodynamic properties of complex systems and the relationship between thermodynamics and information processing. The Jarzynski equality is named after him.

Christopher Jarzynski is a Distinguished University Professor at the University of Maryland, College Park. He received his Ph.D. in 1994 at the University of California, Berkeley, and held postdoc positions at the Institute for Nuclear Theory at the University of Washington (1994-1996) and at the Los Alamos National Laboratory (1996-1999). He then worked as technical staff member at the Los Alamos National Laboratory before he became professor in 2006 at the University of Maryland, where he stayed since then.

For his contributions to physics, Christopher Jarzynski obtained the Raymond and Beverly Sackler Prize in the Physical Sciences in 2005 and the Lars Onsager Prize in 2019. Moreover, he is fellow of the American Physical Society and an elected member of the American Academy of Arts and Sciences and the US National Academy of Sciences.

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The Ministry of Science and ICT and the Asia-Pacific Center for Theoretical Physics announced on the 19th that Christopher Jarzynski, a distinguished professor at the University of Maryland in the U.S., was selected as this year's recipient of the Benjamin W. Lee Professorship.

Professor Jarzynski is an authority in statistical physics, which statistically explains how heat and energy move. His 1997 "Jarzynski equality" is acclaimed for overcoming the limitations of classical thermodynamic theory. Building on this principle, Jarzynski led research clarifying how energy flows in microscopic worlds, such as single molecules or proteins within cells. This work laid the foundation for understanding nanomachines, biomolecules, and quantum systems, significantly

influencing modern statistical physics.

The award honors the late Dr. Lee Whi-soh, whose groundbreaking contributions advanced theoretical physics. It is South Korea's only academic award in his name. The Asia-Pacific Center for Theoretical Physics has presented it annually since 2012 to promising scientists.

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