PRESS RELEASE

June 16, 2017
Inamori Foundation

Announcement of the 2017 Kyoto Prize Laureates

The Inamori Foundation (President: Kazuo Inamori) is pleased to announce the laureates of the 2017 Kyoto Prize, an international award presented to individuals who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind. This year's Prize goes to the following three individuals.
The Kyoto Prize Presentation Ceremony will be held in Kyoto, Japan on November 10. Each laureate will receive a diploma, the Kyoto Prize medal (20K gold), and prize money of 50 million yen.

Advanced Technology — Prize Field : Electronics

Dr. Takashi Mimura (Japan / December 14, 1944 / Age 72)

Semiconductor Engineer

Honorary Fellow, Fujitsu Laboratories Ltd.
Executive Visiting Researcher, Advanced ICT Research Institute,
National Institute of Information and Communications Technology

Invention of the High Electron Mobility Transistor (HEMT) and Its Development for the Progress of Information and Communications Technology

Dr. Mimura invented the High Electron Mobility Transistor (HEMT) with a new structure, in which two layered semiconductors are stacked. He revealed that HEMT has excellent high-frequency characteristics because of its high mobility nature of electrons. This invention has led to significant advancements both in information and communications technology and in physics studies of electrons confined in ultrathin conductive layers.

Basic Sciences — Prize Field : Biological Sciences (Evolution, Behavior, Ecology, Environment)

Dr. Graham Farquhar (Australia / December 8, 1947 / Age 69)

Plant Physiologist

Distinguished Professor, The Australian National University

Development of Process-based Models of Photosynthesis and Their Contributions to the Science of Global Environmental Changes

Dr. Farquhar has developed process-based models of photosynthesis, enabling the prediction of the environmental responses of carbon dioxide exchange between vegetation and the atmosphere, as well as models for the fractionation of the stable isotopes of carbon and oxygen during photosynthesis and transpiration. Doing so, he has made major contributions to the advancement of environmental and climate change sciences.

Arts and Philosophy — Prize Field : Music

Dr. Richard Taruskin (U.S.A. / April 2, 1945 / Age 72)

Musicologist

Professor Emeritus, University of California, Berkeley

A Musicologist and Critic of Prodigious Erudition Who Has Transformed Contemporary Perspectives on Music through Historical Research and Essays That Defy Conventional Critical Paradigms

Dr. Taruskin has pioneered a new dimension in Western music culture through musicology research that transcends conventional historiographical methodologies, issuing sharp critical analysis backed by exhaustive knowledge of many diverse fields. His unrivaled perspective has significantly influenced both performance and study, elevating the importance and creative value of critical discourse to the music world.

(Age is as of June 16, 2017)

BIOGRAPHY OF THE 2017 KYOTO PRIZE LAUREATE IN ADVANCED TECHNOLOGY

Prize Field : Electronics

Dr. Takashi Mimura

Semiconductor Engineer

Affiliation and Title/Position Honorary Fellow, Fujitsu Laboratories Ltd.
Executive Visiting Researcher, Advanced ICT Research Institute, National Institute of Information and Communications Technology

Date of Birth December 14, 1944 **Nationality** Japan

Brief Biography

1944	Born in Osaka City, Japan
1970	M.Eng., Graduate School of Engineering Science, Osaka University
1970	Joined Fujitsu Ltd.
1975	Transferred to Fujitsu Laboratories Ltd.
1982	Ph.D. in Engineering, Osaka University
1998–2017	Fellow, Fujitsu Laboratories Ltd.
2006–2016	Guest Expert Researcher, Millimeter-Wave Device Project, Advanced Communications Technology Group, National Institute of Information and Communications Technology (NICT)
2016–	Executive Visiting Researcher, Advanced ICT Research Institute, NICT
2017–	Honorary Fellow, Fujitsu Laboratories Ltd.

Selected Awards and Honors

1982	The Institute of Electronics, Information and Communication Engineers (IEICE) Achievement Award
1990	IEEE Morris N. Liebmann Memorial Award
1992	The Imperial Invention Award, Japan Institute of Invention and Innovation
1998	Medal with Purple Ribbon (Japan)
1998	ISCS Heinrich Welker Award
2004	The Japan Society of Applied Physics (JSAP) Achievement Award

Memberships: IEEE, IEICE, JSAP

ACHIEVEMENTS OF THE 2017 KYOTO PRIZE LAUREATE IN ADVANCED TECHNOLOGY

Prize Field : Electronics

Dr. Takashi Mimura

Invention of the High Electron Mobility Transistor (HEMT) and Its Development for the Progress of Information and Communications Technology

In 1979–80, Dr. Takashi Mimura invented a new transistor, called High Electron Mobility Transistor (HEMT), in which two different semiconductors were stacked (1, 2). He realized that if one semiconductor with a wider gap is doped with donor impurities, electrons with high mobility would be accumulated in the other along the interface of the two. He succeeded in the first operation of the HEMT by controlling the number of electrons with a voltage applied to its gate and noted that high mobility electrons in the HEMT would yield excellent high-speed performances. Then he played leading roles in the development of HEMTs as high-frequency devices and promoted their applications to microwave receivers for radio astronomy and receivers for broadcasting satellite (BS) system, contributing a great deal to the progress of information and communications technology (3). Moreover, since electrons confined in the ultrathin layer of HEMTs can move freely only along the interface and behave as two-dimensional electrons with very high mobility, the HEMT has immensely contributed to physics studies of electrons with reduced dimensions (4).

In 1970, a decade prior to the HEMT invention, Esaki and Tsu proposed a man-made superlattice (SL) in which two kinds of ultrathin semiconductor layers of about 10 nm in thickness were alternately stacked (5). Stimulated by this work, SLs of GaAs and AlGaAs layers were studied to show the electron confinement in GaAs layers. It was discovered in 1978 that if such a SL structure was formed by putting positively-charged donor impurities only into AlGaAs layers, electrons, confined in GaAs layers, would show high mobility, as they were separated from impurities (6). Dr. Mimura, inspired by this discovery, noticed that, if a single AlGaAs layer with donor impurities is deposited onto an undoped GaAs, it will then similarly induce high-mobility electrons along the interface. The HEMT was invented by using this concept.

Because of their superior high-frequency characteristics, HEMTs are widely used in such areas as receivers for BS and GPS systems, mobile phones and their base stations, and millimeter-wave car-borne radars for collision avoidance; HEMTs now serve as one of the core high-speed devices, on which the information and communications society is built. Initially, HEMTs were fabricated by using mainly the AlGaAs-GaAs pair, but the choice of materials was expanded to the InAlAs-InGaAs pair. Moreover, a psudomorphic system of an ultrathin InGaAs layer embedded in lattice-mismatched GaAs has been widely used to fabricate excellent high speed low noise HEMTs, operating in the microwave/millimeter wave region (7). AlGaN-GaN HEMTs have been also developed (8) and now widely used as high-frequency power devices in base stations of mobile phone

systems and also as high-voltage power devices in switching power-supply systems.

As two-dimensional electrons confined in the ultrathin conductive layer along the interface of HEMTs are nearly free from influences of impurities and interface roughness, HEMT structures have greatly contributed to the progress of physics studies of low-dimensional electrons.

As mentioned above, the invention of HEMTs and related works by Dr. Mimura are indeed a Kyoto Prize worthy achievements, as they have made great contribution to the progress of information and communications technology and to the advancement in physics studies of low-dimensional electrons.

References

(1) Mimura T, *et al.* (1980) A new field-effect transistor with selectively doped GaAs/n-$Al_xGa_{1-x}As$ heterojunctions. *J. J. Appl. Phys.* **19**: L225–L227.

(2) Mimura T (1987) Japan Patent 1409643.

(3) Suzuki S, *et al.* (1986) Detection of the interstellar C_6H radical. *Publ. Astron. Soc. Japan* **38**: 911–917.

(4) Tsui DC, *et al.* (1982) Two-dimensional magnetotransport in the extreme quantum limit. *Phys. Rev. Lett.* **48**: 1559–1562.

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(6) Dingle R, *et al.* (1978) Electron mobilities in modulation-doped semiconductor heterojunction superlattices. *Appl. Phys. Lett.* **33**: 665–667.

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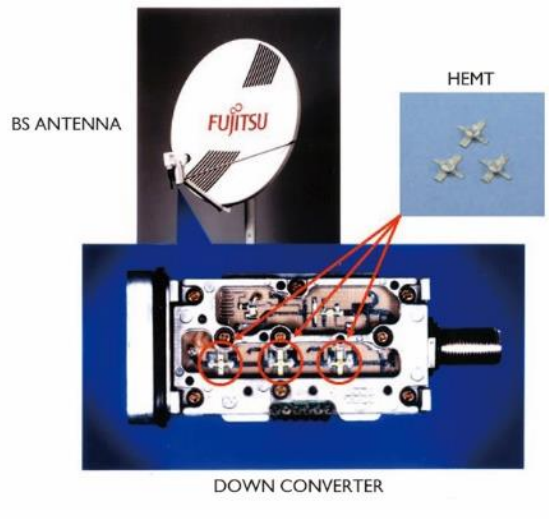
Advanced Technology

Prize Field：Electronics

Dr. Takashi Mimura

A device to support the Information and Communications society

Our daily lives are supported by various types of electronic devices, such as mobile phones and car navigation systems, which must have stable communication at high speed. This is made possible through numerous mechanisms in places that are not visible on the surface. Among such devices, the invention of Dr. Takashi Mimura, a High Electron Mobility Transistor (HEMT), has had an immense influence on foundation of modern society.



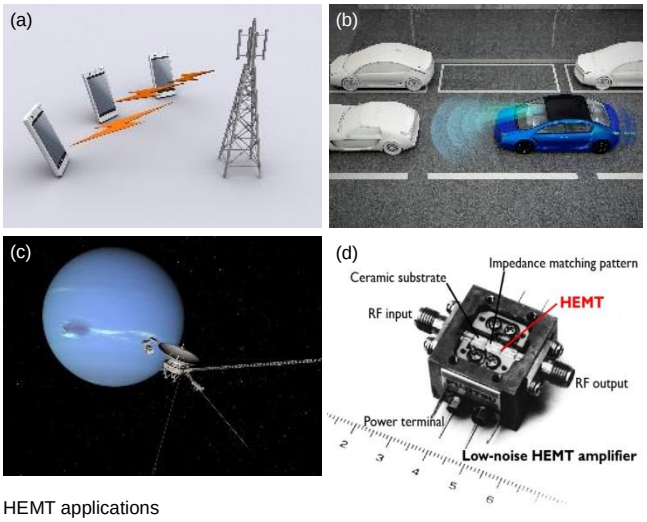
HEMT used in BS receivers
(Reproduced by courtesy of Fujitsu Laboratories Ltd.)

Influence of HEMT

The first commercial HEMT appeared in the radio telescope in 1985 at Nobeyama Radio Observatory in Japan, and it successfully lead the discovery of unknown interstellar matter. HEMT has contributed to scads of astronomical observations such as X-band receivers for the Voyager 2.

HEMT has also contributed to the progress of physics studies of low-dimensional electrons. For example, you can find the term “HEMT” appeared in a Nobel Lecture manuscript written by Dr. Störmer, one of the Nobel laureates for the discovery of the fractional quantum Hall effect.

Moreover, HEMT has a profound impact on the industry. It is worth mentioning that the performance of HEMT played an important role in the explosive growth of satellite broadcasting with size reduction into half of the satellite dish. Today, HEMTs are used in various applications such as mobile phone base stations. Thus an influence of HEMTs on the information society is immense.



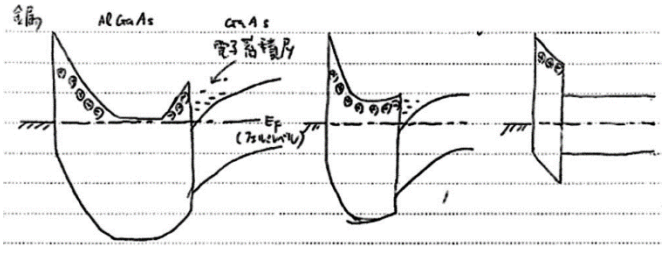
HEMT applications
(a) Mobile base stations (b) Millimeter-wave radar for the prevention of automobile collisions (c) Voyager 2 radio receiver (Credit: NASA/JPL-Caltech) (d) First commercial HEMTs used in radio telescope at Nobeyama Radio Observatory (Reproduced by courtesy of Fujitsu Laboratories Ltd.)

What is HEMT?

HEMT is a compound semiconductor made up of several elements. Low noise, high electron mobility, and high frequency characteristics are some of the nature of HEMT. In the layer where the electrons move, there are few impurities that hinder movement, and electrons can move at high speeds. In addition to thus dividing the surface into a layer that supplies electrons and a traveling layer, in which the electrons move, he developed a device that can control the movement of electrons by field effect.

Future developments

The success and the appeal of the characteristics of the HEMT device are attracting an increasing number of researchers and developers worldwide into this field. While applications that utilize the high-frequency characteristics, such as the millimeter-wave radar for the prevention of automobile collisions, are growing; currently, it is also expected to be used in power devices. HEMT will continue to develop in response to the diverse needs of the information and communications society.



Energy band diagrams explaining HEMT depicted by Dr. Mimura in his patent
(Credit: Fujitsu Laboratories Ltd.)

BIOGRAPHY OF THE 2017 KYOTO PRIZE LAUREATE IN BASIC SCIENCES

Prize Field : Biological Sciences (Evolution, Behavior, Ecology, Environment)

Dr. Graham Farquhar

Plant Physiologist

Affiliation and Title/Position Distinguished Professor, Research School of Biology, The Australian National University

Date of Birth December 8, 1947 **Nationality** Australia

Brief Biography

1947	Born in Hobart, Tasmania, Australia
1973	Ph.D. in Biology, The Australian National University (ANU)
1973–1975	Research Associate, Michigan State University-U.S. Department of Energy (MSU-DOE) Plant Research Laboratory, MSU
1975–1976	Research Specialist, MSU-DOE Plant Research Laboratory, MSU
1976–1980	Research Fellow, ANU
1980	Senior Research Fellow, ANU
1980–1983	Fellow, ANU
1983–1988	Senior Fellow, ANU
1988–2003	Professor, ANU
2003–	Distinguished Professor, ANU

Selected Awards and Honors

2011	Humboldt Research Award
2013	Officer of the Order of Australia
2015	Prime Minister's Prize for Science (Australia)

Memberships: Australian Academy of Science, National Academy of Sciences, Royal Society

ACHIEVEMENTS OF THE 2017 KYOTO PRIZE LAUREATE IN BASIC SCIENCES

Prize Field : Biological Sciences (Evolution, Behavior, Ecology, Environment)

Dr. Graham Farquhar

Development of Process-based Models of Photosynthesis and Their Contributions to the Science of Global Environmental Changes

Photosynthesis by plants provides the foundational support to all ecosystems on Earth. Hence, functional understanding of photosynthesis is critically important for analyses of the environmental responses of agricultural production and ecosystem processes. Terrestrial plants control stomata in order to optimize the uptake of carbon dioxide (CO_2) from the atmosphere while preventing excessive water loss via transpiration. Thus, the assimilation rate of CO_2 cannot be considered separately from transpiration.

Dr. Graham Farquhar and colleagues developed a series of process models of photosynthesis based on the fact that the carbon assimilation catalyzed by Rubisco is a major rate-limiting step in photosynthesis (1–3). The original model, published in 1980, enabled quantitative analyses of CO_2 exchanges between plants and the atmosphere in relation to multiple environmental factors. As such, it has been applied to a variety of research, ranging from cells and leaves to forest-stand levels (4). The model has been used in quantitative evaluations of how diverse plants in agricultural fields, grasslands, and forests respond to increases of atmospheric CO_2 due to human activities, and how these responses are affected by water availability and temperature. Most importantly, it is incorporated in almost all of the existing models of the terrestrial biosphere carbon cycles, and as such, it is indispensable for climate change science.

Dr. Farquhar also developed process-based models for fractionation of stable isotopes of carbon and oxygen during photosynthesis and transpiration by terrestrial plants (5–7). These models have been used extensively in botany, agricultural science, environmental science, paleontology (tree ring analysis), and ecosystem ecology (isotopic analysis of the food chain). Dr. Farquhar continues to be actively engaged in pioneering research in botany and environmental science. As for his contribution to agricultural sciences, Dr. Farquhar assisted selections of drought-resistant varieties of wheat and peanut by utilizing his process-based models of photosynthesis (8), which led to the identification of key genes for efficient water use (9).

Dr. Farquhar has actively contributed to climate change science and development of science-based policies, for example as a member of the Intergovernmental Panel on Climate Change, and also as a scientific advisor and an Australian representative to the Kyoto Protocol negotiations.

In summary, for almost 40 years, Dr. Farquhar has contributed to the advancement of environmental science and climate change science. As climate change science becomes increasingly important, his process-based models of photosynthesis will continue to play a significant role at the global research fronts.

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(2) von Caemmerer S & Farquhar GD (1981) Some relationships between the biochemistry of photosynthesis and the gas exchange of leaves. *Planta* **153:** 376–387.

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(6) Farquhar GD, *et al.* (1989) Carbon isotope discrimination and photosynthesis. *Annu. Rev. Plant Physiol. Plant Mol. Biol.* **40:** 503–537.

(7) Farquhar GD, *et al.* (1993) Vegetation effects on the isotope composition of oxygen in atmospheric CO_2. *Nature* **363:** 439–443.

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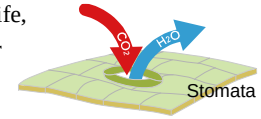
Basic Sciences

Prize Field：Biological Sciences (Evolution, Behavior, Ecology, Environment)

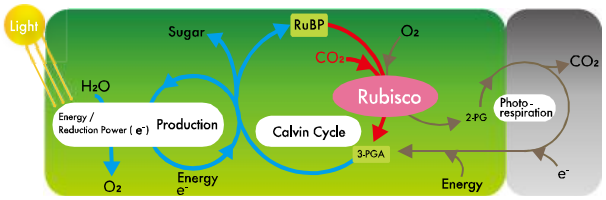
Dr. Graham Farquhar

Understanding plant behavior using an economics approach



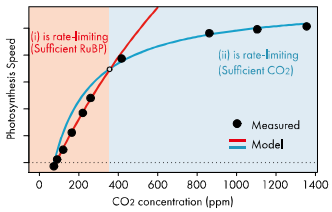
Among the requirements for plant life, including light, water, CO_2 and other conditions, the most important is water. Because water is transpired when plants open their stomata in order to ingest CO_2, the opening and closing of the stomata are strictly controlled. During his student days, Dr. Farquhar and his supervisor suggested that the simplest way of thinking about the environmental response of plants was to think of plants as behaving economically. Assuming that transpiration of water is a cost, and photosynthesis is a benefit, plants regulate their stomatal apertures to maximize the ratio of benefit to cost. The theoretical model developed from this idea successfully explained changes in the amount of photosynthesis during a day.

"Farquhar's photosynthesis model"



Simplified scheme of "Farquhar's photosynthesis model"
Modified Farquhar GD, *et al.* (1980), *Planta*

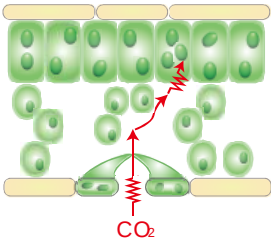
Dr. Farquhar and his colleagues noticed that photosynthesis, which consists of many biochemical reactions, could be integrated into the relationship between the activities of the carbon-fixing enzyme, Rubisco, and the concentration of its substrate, RuBP. In the CO_2 dependence of photosynthesis, for example, photosynthesis is determined by whichever is the slower reaction: (i) carbon fixation to RuBP (consumption of RuBP) or (ii) regeneration of RuBP. The model developed through this simple idea made it possible to analyze photosynthesis as response of plants against various environmental factors.



Modified Duursma RA (2015), *PLOS ONE*

Stable isotope method for estimating chloroplast CO_2 concentration

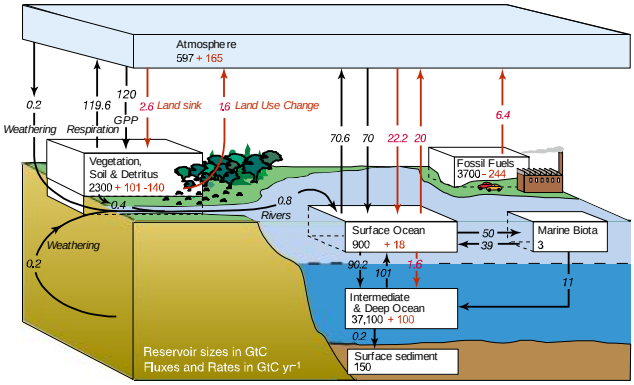
Since CO_2 is assimilated in chloroplasts, chloroplast CO_2 concentration must be elucidated in order to build a more accurate model of photosynthesis. To estimate this concentration, Dr. Farquhar focused on $^{13}CO_2$, which exists approximately 1% of a CO_2 molecule. $^{13}CO_2$ generally has difficulty in translocating from the stomata to the chloroplast, and the Rubisco also prefers $^{12}CO_2$ as a material. Thus, the proportion of $^{13}C/^{12}C$ in a plant body is slightly lower than that in the atmosphere. However, when the chloroplast CO_2 concentration drops, a "leftover effect" of Rubisco increases $^{13}CO_2/^{12}CO_2$ in the chloroplast. The Rubisco has to start using $^{13}CO_2$ as a substrate, so the concentration of ^{13}C increases. Therefore, it should be possible to estimate chloroplast CO_2 concentrations from ^{13}C changes. Taking advantages this line of phenomenon, Dr. Farquhar developed a mathematical model capable of estimating chloroplast CO_2 concentration. Because the concentration is result of opening/closing of the stomata, the water environment, Dr. Farquhar and his colleagues also developed new drought-resistant varieties of wheat and peanut using this method.



Sectioned drawing of leaf

Impact on ecology and climate change science

Dr. Farquhar's mathematical models have made it possible to organize environmental factors and responses of plants and predict how plants will respond. Because the photosynthesis model can be applied to predicting responses as plant population, it is now used in research to improve agricultural productivity, and in the quantitative analysis of ecosystems (plant physiological ecology). It is also incorporated into simulating vegetation change caused by global environmental change, and essential for more accurate analysis or prediction of our environment such as the carbon cycle against climate change or global warming. In addition, the $^{13}C/^{12}C$ change reflect accumulation of environmental changes, and so it is widely used in fields other than botany—such as analyzing food chains, the atmosphere, and past environments by tree-rings dating. Consequently, Dr. Farquhar's research, which initially sought to understand plant behavior using a mathematical formula, have large contributions to ecology or environmental science of climate change.



Global carbon cycle *IPCC Fourth Assessment Report* (2007)
Black: nature, Red: anthropogenic

BIOGRAPHY OF THE 2017 KYOTO PRIZE LAUREATE IN ARTS AND PHILOSOPHY

Prize Field : Music

Dr. Richard Taruskin

Musicologist

Affiliation and Title/Position Professor Emeritus, University of California, Berkeley

Date of Birth April 2, 1945 **Nationality** U.S.A.

Brief Biography

1945	Born in New York City, U.S.A.
1975	Ph.D. in Historical Musicology, Columbia University
1975–1981	Assistant Professor of Music, Columbia University
1981–1986	Associate Professor of Music, Columbia University
1986–1997	Professor of Music, University of California, Berkeley
1997–2014	Class of 1955 Professor of Music, University of California, Berkeley
2015–	Professor Emeritus, University of California, Berkeley

Selected Awards and Honors

1980	Alfred Einstein Award
1987	The Dent Medal
1993, 2005	ASCAP Deems Taylor Award
1996	Royal Philharmonic Society Music Award
1997, 2006	Otto Kinkeldey Award

Memberships: American Academy of Arts and Sciences, Hungarian Academy of Sciences

Selected Publications

Opera and Drama in Russia as Preached and Practiced in the 1860s, UMI Research Press, 1981.

Musorgsky: Eight Essays and an Epilogue, Princeton University Press, 1993.

Text and Act: Essays on Music and Performance, Oxford University Press, 1995.

Stravinsky and the Russian Traditions: A Biography of the Works through Mavra, University of California Press, 1996.

Defining Russia Musically: Historical and Hermeneutical Essays, Princeton University Press, 1997.

The Oxford History of Western Music, Oxford University Press, 2005.

The Danger of Music and Other Anti-Utopian Essays, University of California Press, 2008.

On Russian Music, University of California Press, 2008.

Russian Music at Home and Abroad: New Essays, University of California Press, 2016.

ACHIEVEMENTS OF THE 2017 KYOTO PRIZE LAUREATE IN ARTS AND PHILISOPHY

Prize Field : Music

Dr. Richard Taruskin

A Musicologist and Critic of Prodigious Erudition Who Has Transformed Contemporary Perspectives on Music through Historical Research and Essays That Defy Conventional Critical Paradigms

Dr. Richard Taruskin is a musicologist and critic whose revolutionary approach to early music, modern Russian music and Western music history inspires and fascinates music lovers worldwide.

Born in New York in 1945, Dr. Taruskin studied Russian language at Columbia University before entering its graduate school of musicology, where he focused on Western music history under Professor Paul Henry Lang, and joined the faculty after earning his Ph.D. In those days, he performed as a viola da gamba player, and served as the choral conductor of the Collegium Musicum of Columbia University. These experiences provided a prelude to the considerable controversy surrounding early music that he would ignite later in life. In the 1980s, while writing for *The New York Times,* other newspapers and academic journals, he provocatively asserted that contemporary performances of early music were not true examples of "authenticity," as was commonly claimed, but rather reflections of late 20th century aesthetics. This argument influenced the performance world of early music in tangible and intangible ways, and even today, Dr. Taruskin's argument underlies the varied approaches these performances tend to take.

Dr. Taruskin has left an even larger mark in the music world through his Russian music research, evident in his books; *Opera and Drama in Russia as Preached and Practiced in the 1860s* (1981), *Musorgsky: Eight Essays and an Epilogue* (1993), and *Stravinsky and the Russian Traditions: A Biography of the Works through Mavra* (1996). These works, spawned from a revolutionary method of analyzing original compositions alongside extensive study of contextual circumstances, including folkloristics, have radically reshaped our image of the original composers—and updated the methodology of musicology research itself.

His 6-volume *The Oxford History of Western Music* (2005), focusing exclusively on music in the Western literate tradition, represents a literary landmark in musicology and perhaps the largest overview of music history ever written by a single author. Under the influence of ethnomusicology and historical science which has critical approach to historiography, Dr. Taruskin critically overstepped the description method based on some aesthetic and/or historical universality and presented an enormous amount of descriptive evidence that Western music history written under homogeneous standards actually consists of an aggregation of historical matters that are minuscule and heterogeneous.

His deep knowledge of such diverse fields as history, culture, politics, art, literature and religion allows him to make an incisive analysis of the literate tradition of Western music in the socio-cultural context. Every chapter of his first-edition Western musicology history, which exceeds 4,000 pages, is both thrilling and illuminating.

Dr. Taruskin's critiques have consequently set a new standard in musicology, influencing audiences and performers alike. His critical practices and deep academic insights have changed music as we know it, pioneering a new realm of music research which can go beyond the boundary between conventional criticism and musicology, and between historical musicology and ethnomusicology.

The quality and volume of his work reveal that in music, creativity can be found not only in composition and performance, but also in meticulous discourse contextualizing the art—and that this, in itself, can contribute significantly to the world's music cultures.

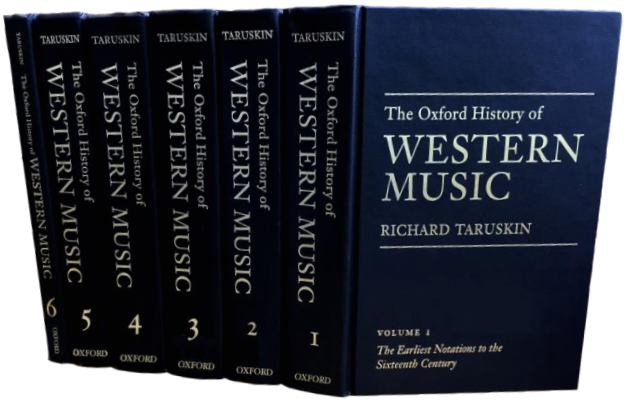
Arts and Philosophy

Prize Field：Music

Dr. Richard Taruskin

Monumental work in Western music historiography

Dr. Taruskin says, "Something over a thousand years ago music in the West stopped being (with negligible exceptions) an exclusively oral tradition and became a partly literate one….Music became visual as well as aural." From such an original perspective emerged *The Oxford History of Western Music* (2005), a vast tome of more than 4,000 pages, providing a sweeping panorama of music from over 1,000 years ago to the 20th century; it is the largest overview of Western music history ever written by a single author, and truly a literary landmark in 21st century musicology.



The Oxford History of Western Music (2005)

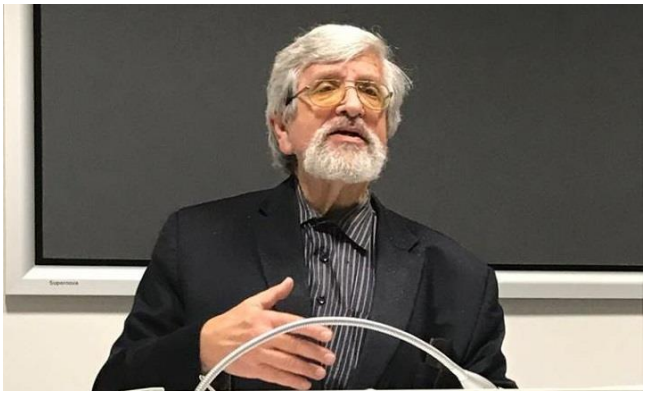
Critique of "authenticity" in early music

Performers of early music, or music before the classical period—which includes medieval, renaissance and baroque music—relied on "authenticity" as the basis of their performances. "Authenticity" aims to represent the genuine intentions of the composers as well as the performing practices of that time, uncovered only through critical analysis of various existing texts while excluding present-day perceptions. Many early music performers firmly believed in the idea of composers' intentions, and attempted to represent them in their performances. However, performances relying solely on what remains in text form were extremely neutral, bereft of any and all expression of the feelings of the performers themselves. Dr. Taruskin, who has experience as a player of the viola da gamba, an early music instrument, asserts that no matter how rigorously the texts are analyzed, the composer's intentions are really nothing but a mystique, and therefore, performers need values of their own, whatever the music they perform. His critique of "authenticity" is highly thought-provoking, and not only led the discussions surrounding "authenticity" around the 1980s, but also has an impact on performances of early music.

Lecture concerning "authenticity" at the Orgelpark in Amsterdam

Revolutionary approach to musicology research

In his research of Russian composers including Stravinsky, Dr. Taruskin introduced extensive study of contextual circumstances, including folkloristics, into musicology research. For example, by clarifying that Stravinsky's *the Rite of Spring* was written not only following the Western music style, but also under the much influence of Russian traditional folk music, he renewed the conventional image of the composer. His incisive analysis based on deep knowledge of diverse fields including culture, society and politics, pioneered a new aspect in musicology research.



Lecture at the conference "Transformations in the music and culture of the new post-Soviet states and Eastern Europe," University of Cambridge

Creative value of discourse in music

In music, where composition and performance are the mainstream activities, the sophisticated critique and historical research by Dr. Taruskin that question the very identity of music itself made an unparalleled contribution in demonstrating that discourse surrounding music do not play a subordinate role, but rather a creative one.

EVENT SCHEDULE OF THE 2017 KYOTO PRIZE

1. **WELCOME RECEPTION** (by invitation only)
   November 9, 2017 (Thu.) / Kyoto Hotel Okura
   - The welcome reception and dinner will be hosted by Kyoto Prefectural Government, Kyoto City Government and Inamori Foundation in honor of the laureates.

2. **PRIZE PRESENTATION CEREMONY** (by invitation only)
   November 10, 2017 (Fri.) / Kyoto International Conference Center

3. **JOINT PRESS CONFERENCE** (for media only)
   November 10, 2017 (Fri.) / Kyoto International Conference Center
   - A joint press conference attended by the laureates will take place right after the Presentation Ceremony.

4. **BANQUET** (by invitation only)
   November 10, 2017 (Fri.) / Grand Prince Hotel Kyoto

5. **COMMEMORATIVE LECTURES** (open to the public)
   November 11, 2017 (Sat.) / Kyoto International Conference Center
   - The laureates will talk about their views and personal philosophies.

6. **WORKSHOPS**
   November 12, 2017 (Sun.) / Kyoto International Conference Center or others
   - Three workshops in the presence of laureates, scholars and experts will be held in parallel at respective venues.

7. **YOUTH DEVELOPMENT PROGRAMS**
   Date and Place: to be released in late September
   - Laureates will give special classes or forums for children and students. More detail will be announced in late September.

8. **KYOTO PRIZE LAUREATE LECTURES IN KAGOSHIMA** (open to the public)
   November 16, 2017 (Thu.) / Kagoshima Citizens' Culture Hall
   - This Kagoshima event is organized by the Kyoto Prize Laureate Lectures Committee consisting of Kagoshima Prefecture, Kagoshima City, Kagoshima University and Kagoshima Chamber of Commerce and Industry, with support of the Inamori Foundation since 2014. The laureates will talk about their views and personal philosophies.

9. **KYOTO PRIZE SYMPOSIUM IN U. S. A.** (open to the public)
   March 20 (Tue.)–22 (Thu.), 2018 / San Diego, California, U.S.A.
   - Three symposia will be held in honor of the 2017 Kyoto Prize laureates in San Diego hosted by Kyoto Symposium Organization and local universities (San Diego State University, University of California, San Diego, University of San Diego, and Point Loma Nazarene University). This event marks its 17th anniversary in 2018.

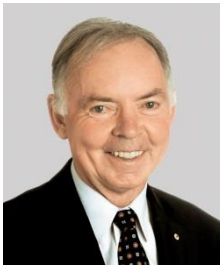
10. **KYOTO PRIZE AT OXFORD** (open to the public)
    May 8 (Tue.)–9 (Wed.), 2018 / The University of Oxford, U.K.
    - This event, organized by the Blavatnik School of Government, the University of Oxford will be the final event of the 2017 Kyoto Prize laureates. It has been started since this May, generating laureates' public lecture and panel discussion.

The 2017 Kyoto Prize Laureates
Pictures for Publication

The following pictures are downloadable for your publication's use after the press conference of the announcement of the 2017 Kyoto Prize laureates (15:30, June 16) finishes.

- Portrait pictures (see below) of the 2017 Kyoto Prize laureates
- Pictures from the press conference

URL: http://www.inamori-f.or.jp/en/media/ Password: kyotoprize2017

Advanced Technology **Dr. Takashi Mimura**	
01 	
Basic Sciences **Dr. Graham Farquhar**	
02 	03 
Arts and Philosophy **Dr. Richard Taruskin**	
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