KEK

Inter-University Research Institute Corporation

High Energy Accelerator Research Organization

Research institute of Japan's largest accelerator science that unravels the mysteries of universe, matter and life

Director General

Masanori Yamauchi

Particle accelerator has played extremely important roles in progress of our understandings of nature, since its history started in 1930's. It has provided essential methodology to study nuclei, elementary particles, condensed matter and even life sciences. Also, the role of particle accelerators is really outstanding in their industrial and medical applications. There is no doubt that progress of particle accelerators has substantially contributed to the modern science. Technologies of particle accelerators are still advancing rapidly, and drive frontier of science and applied research.

KEK has established its credit as one of the leading accelerator laboratories in the world, and is making substantial contributions to the basic sciences in the various fields. It serves as one of the inter-university research organizations to offer opportunities of frontier research to scientists and students in the Japanese universities, and contributes to progress of scientific research in Japan. More than 20,000 scientists visit KEK every year from abroad to carry out research program extensively at the accelerator facilities here. This provides extraordinary opportunity especially to young scientists to compete with each other internationally. Accomplishments of those international collaborations include: confirmation of Kobayashi-Maskawa theory, discoveries of many exotic compound particles and clarification of neutrino oscillation. Remarkable achievements have been obtained in material and life science as well, such as structure determination of novel superconductors and protein-drug complexes, and studies of novel properties induced by hydrogen atoms, spins and electrons in condensed matter. In addition to those ongoing research programs, there are extensive discussions on future programs. The international linear collider is an ambitious project to reveal unknown fundamental laws of particles, which is being proposed by KEK and the international community of physicists. Various aspects of this exciting project are now being considered by committees formed by the Ministry of Education, Culture, Sports, Science & Technology.

KEK's mission in the near future is to carry out the ongoing research programs stably and efficiently to derive the best scientific outcomes from them, and to open a firm route to the attractive future programs. We deeply recognize that such scientific research has been made possible by the understanding and support of the Japanese people. We observe all applicable laws and regulations to carry out the research program safely. KEK will further develop frontier of accelerator technologies, and play leading roles in diverse scientific researches.

Purpose of the Organization

KEK was established to promote various types of researches as a center of excellence for overall development of Japan's accelerator science (particle and nuclear research using high energy accelerators, research on the structure/function of matter including living organisms, research on improving the accelerator performance, and related basic technologies). As the Inter-University Research Institute Corporation, KEK provides researchers across the country and abroad with opportunities for research. With the Tsukuba and Tokai campuses as centers for excellence, KEK joins international collaboration experiments and developments. In addition, KEK, as a basic research organization under Graduate University for Advanced Studies, fosters scientists who will contribute to the promotion of accelerator science and advanced research fields.

Tsukuba campus

Tokai campus (J-PARC)

Organization and its role

Unlock the mysteries of the creation of universe

Institute of Particle and Nuclear Studies conducts a wide range of experiments and theoretical studies in particle and nuclear physics. The research may unlock the mysteries of the submicroscopic world such as elementary particles, which form all matter, including ourselves. At the same time, it challenges the fundamental question-how the universe evolved at its very beginning.

Explore the functions and structure of materials and life

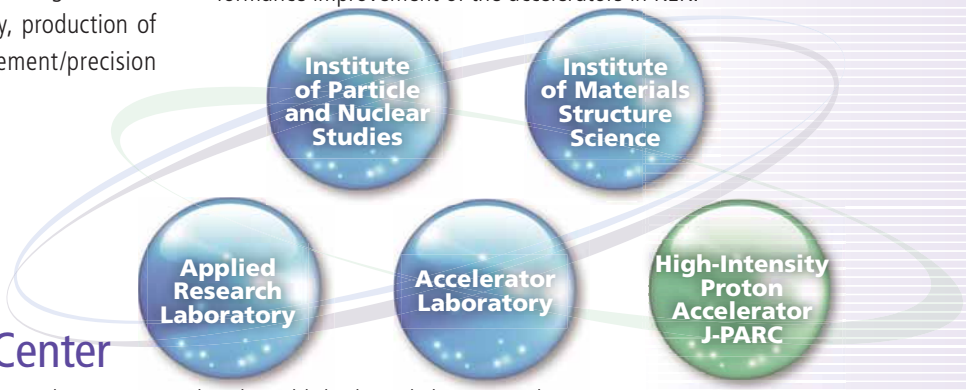
Institute of Materials Structure Science uncovers a wide range of the structure and functions of matters from atoms to bulk materials including biomolecules using synchrotron light, neutrons, muons, and slow positrons generated from accelerators. It conducts fundamental research on materials and in the field of life science, as well as applied research and also contributes to the development of the material science.

Create technologies necessary for research

Applied Research Laboratory carries out research and technological development, which includes radiation, environmental measurement, computer, superconductivity, cryogenics and high-precision processing technique required for research using accelerators. Using these technologies, we provide radiation protection, environment conservation, management of computers and networks, liquid helium supply, production of superconducting magnets, precision measurement/precision measuring equipment.

Building and Operating Accelerators

All research activities carried out in KEK are based on accelerators. The Accelerator Laboratory provides researchers across the country and abroad with collaborative experiments in the field of elementary particles, nuclear, material, and life sciences through design, construction, operating maintenance and performance improvement of the accelerators in KEK.



Tokai Campus Research Center

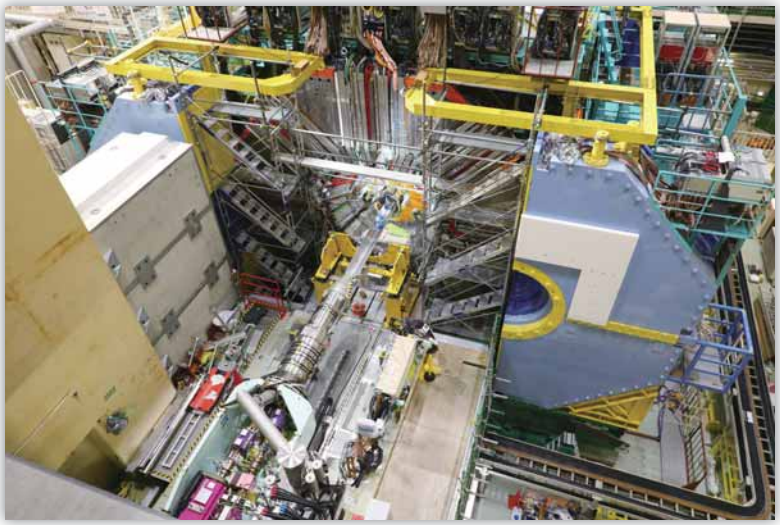
Japan Proton Accelerator Research Complex (J-PARC) was proposed and established jointly by KEK and Japan Atomic Energy Agency (JAEA), and is operated by both institutions under the terms of their agreement. The first facility was completed within the Nuclear Science Research Institute in JAEA Tokai in 2008. Currently, about 400 researchers conduct a wide range of researches in the field of particle physics, nuclear physics, material science, life science, and atomic energy. This facility offers a wide variety of secondary particles (neutrons, muons, kaons, and neutrinos) using the world's highest intensity proton beam and supports many different types of researches such as materials and life science experiments and the T2K experiment (Tokai to Kamioka Long Baseline Neutrino Oscillation Experiment).

Unlocking the mysteries of the universe

Research on elementary particles and nuclei

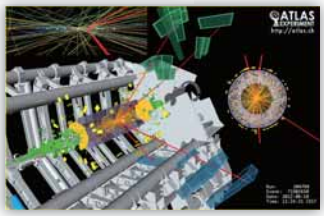
We conduct experiments and theoretical research to reveal the nature of the elementary particles and nuclei that constitute the matter in the universe as well as forces affecting particles and nuclei.

Using various beams from a colliding beam accelerator and a high-intensity proton accelerator, KEK continues its comprehensive research in the field of physics, including the development and application of experimental equipment for physics research. At the same time, colloquia and seminars are held on a fairly regular basis to conduct theoretical research in various fields, such as particle physics phenomenology, string theory, field theory, and quantum chromodynamics (QCD).



The Belle Ⅱ detector in Tsukuba Experimental Hall

Neutrino Experimental Facility



A candidate event captured by the ATLAS detector, where a Higgs boson was produced and immediately decayed to 4 muons.
©CERN the ATLAS experiment group

Example of a Research Project

Belle Ⅱ Experiment

SuperKEKB project

The former Belle experiment contributed to the verification of the Kobayashi-Maskawa theory on which Dr.Makoto Kobayashi and Dr.Toshihide Maskawa were awarded the 2008 Nobel Prize in Physics.

The Belle Ⅱ experiment, upgraded from the Belle detector, aims to discover new physical laws. The titanic Belle Ⅱ detector, sizing 8 meters on each side and weighing 1,400 tons, is to investigate decays of B mesons produced by collisions of electrons and positrons accelerated at the upgraded SuperKEKB accelerator.

More than 860 researchers from 26 countries and regions as of October 2018 are participating in the Belle Ⅱ experiment. Analyzing 50 times more data than that in the previous Belle experiment, we aim to unveil the mystery behind disappearance of antimatter which should have existed in the early universe and explore phenomena beyond the Standard Model of particle physics.

Unveiling the mysteries of the neutrino

T2K Experiment

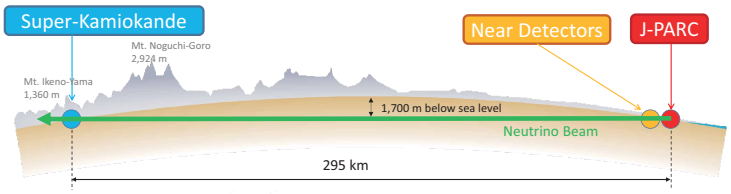
In the T2K experiment, we measure "neutrino oscillations", where the muon-type neutrinos produced at J-PARC change to different types during flight to the Super-Kamiokande detector at 295 km from J-PARC. The ultimate goal of T2K is to unveil the mysteries of the neutrino, a particle so elusive that physicists don't even currently know it's mass. On July 19, 2013, T2K clearly showed the "appearance of electron neutrinos from a muon neutrino beam", the world's first ever observation of the transformed type of neutrinos from originally produced one. The discovery opened the possibility of detecting CP violation in the neutrino sector, and T2K started to seek CP violation in the neutrino sector. The latest result of T2K in 2018 shows a hint of the CP violation at >2sigma level.

2012, Higgs Boson finally discovered

ATLAS Experiment

KEK together with the other 15 Japanese universities participates in the ATLAS experiment which is one of international experiments at the LHC accelerator constructed at CERN. KEK also made the contributions to build the LHC accelerator. In 2012 the LHC experiments, ATLAS and CMS discovered Higgs particle which is the key of the mechanism to give mass to elementary particles, called Higgs mechanism, and confirmed actually the mass of W and Z particles, which are mediators of week force, is generated by the Higgs mechanism. The LHC experiments observed in 2018 that the Higgs mechanism is also responsible for mass of 3rd generation fermions which are ones of material constitutes.

KEK also contributes to the luminosity upgrade of LHC (HL-LHC).



Main Experimental Equipment

Belle Ⅱ Detector: The Belle detector, which proved the Kobayashi-Maskawa theory, has been upgraded to Belle Ⅱ.

SuperKEKB Accelerator: The KEKB accelerator, which achieved the best collision performance in the world, is now being upgraded to have 40 times better performance.

Neutrino experimental facility: This facility is constructed for the T2K experiment. A neutrino beam is directed from J-PARC towards Super-Kamiokande, 295km away from J-PARC, and is used to unveil the mysteries of neutrino.

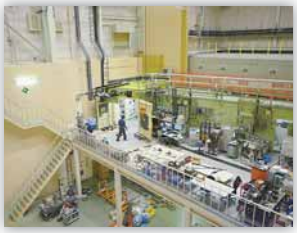
Hadron experimental facility: This facility generates secondary particles such as Kaons and π-mesons from a proton beam extracted from the main ring. Various experiments on elementary particles and nuclei are conducted.

Look at the Structure of Materials and Life

Institute of Materials Structure Science

Institute of Materials Structure Science promotes the fundamental researches, which unlock the structure and dynamics of materials in a wide range of length- and time-scales which cover from atom to biomolecules using synchrotron radiation and slow positrons generated from an electron accelerator and neutrons and muons generated from a proton accelerator. The knowledge related to function expression obtained through these researches leads to applied research, which will make our lives more comfortable and convenient.

This PF facility is used to carry out approximately 1000 experimental proposals annually.



PF-AR Experimental hall

Slow Positron Facility

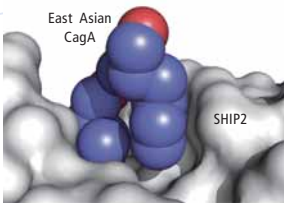
Material and Life Science Experimental Facility

Example of Research fields

"Observe" Function and Shape of Materials

Materials Science

Various properties such as magnetism and electric conductivity of materials originate from hierarchical alignment and dynamics of atoms and electrons. These structures can be studied by using beam probes of synchrotron light interacting with electron charge, neutrons scattered by nuclei and spins, muons playing as a compass for the magnetic field, and positrons surveying atomic alignment of material surfaces. Charge, spin, and electron-orbit in materials are closely reviewed to understand the microscopic origin of functionality of materials and controlled to design new materials for practical use of spintronics, energy storages and renewable energy such as artificial photosynthesis.



Photon Factory reveals protein-protein interaction relating to stomach cancer.

Learning Protein and Designing Medicine

Life Science

Proteins are complex molecules with a diverse range of biological functions. 20 different amino acids form specific polypeptide chains, which fold into three-dimensional structures. Synchrotron radiation is used to determine the structures of proteins by analysing the diffraction of X-rays from protein crystals. Protein structures facilitate our understanding of biological functions, diseases, and therapeutic drug interactions. The Photon Factory has five stations dedicated to the analysis of protein crystals. In addition, dedicated beamlines for small-angle X-ray scattering (SAXS) enable characterization of the molecular size, conformation, and flexibility of proteins in solution, under physiologically relevant conditions.
The KEK also has a cryo-electron microscopy (cryo-EM) facility, which is open to all academic applications. Cryo-EM detects electrons projected by cryogenic samples, and uses computer software to reconstruct 3-D images of molecules. This technique does not require protein crystals, and can help determine biological protein conformations and function.

Supporting Our Future

Energy and Environmental Science

Japan lacks natural resources or energy so it needs to realize and prevail renewable energy as well as a green process activity for low carbon in the chemical industry (and reduce the environmental load). We carry out research on artificial photosynthesis which generates renewable energy from sunlight and water and new materials for energy storages, such as secondary batteries and fuel cells, to achieve a sustainable society.

Exploring the Final Frontier

Earth and Planetary Science

We experimentally simulate high pressure and temperature conditions of the earth and planetary interiors, where human cannot reach, and investigate the structure and properties of their constituent materials to understand their evolution as well as natural phenomena such as earthquakes and volcanic eruptions. Furthermore, we analyze precious samples collected in space to unlock the mystery of the creation of the earth and the solar system.

Main Experimental Equipment

Photon Factory (PF): It started operation as a Japan's first unique light source for synchrotron light which can provide X-ray region.

Photon Factory Advanced Ring (RF-AR): This is the high intensity pulse light source. Using synchrotron light which flashes like a strobe light, we can capture changes in the structure of materials just like moving images.

Materials and Life Science Experimental Facility (MLF): MLF is the facility aimed at carrying out materials science and life research using neutron and muons which are produced from the high intensity proton beam at J-PARC.

Slow Positron Facility (SPF): The Slow Positron Facility carries out researches using slow positron beams produced by electron beams from an electron linear accelerator.

Developing and Operating Accelerators

Accelerator Science Research

KEK carries out design, construction, operation, maintenance, and improvement of particle accelerators which are the fundamental tools for our research activities. Currently KEK operates linear and circular accelerators for protons and electrons/positrons. These accelerators are always on the performance frontier in the world.

Part of SuperKEKB Accelerator

Beam line at the Photon Factory

The main ring (MR) synchrotron at J-PARC

SuperKEKB

The SuperKEKB accelerator is a circular collider with a circumference of 3 km, which is built about 10m below the ground. It collides electrons and positrons at an interaction point in the middle of the Belle Ⅱ detector, with a luminosity of 40 times higher than its predecessor, KEKB. Experiments at KEKB made key scientific observations which contributed to the 2008 Nobel Prize in Physics that was awarded to Drs. Makoto Kobayashi and Hidetoshi Maskawa.

Photon Factory (PF)

The Photon Factory is an electron accelerator which generates synchrotron light (high intensity light aligned in the same direction from infrared light to X-ray region) used for materials science and life science. It was built in the 1980s as a Japan's first synchrotron dedicated to the photon science. Since then numerous modifications have been carried out to improve its performance.

J-PARC

J-PARC is a multi-functional accelerator complex which accelerates protons and generates beams used for materials and life sciences, as well as nuclear and particle physics. It also produces of the neutrino beam for the Tokai-to-Kamioka (T2K) long-baseline neutrino experiment, which has been the front runner in the world.

Research and Development for Next-Generation Accelerator

ILC conceptual drawing ©Rey.Hori

30km long! The only Accelerator in the world

International Linear Collider (ILC)

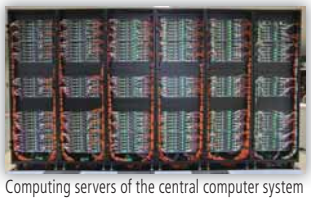
The International Liner Collider (ILC) is a next-generation electron-positron collider to be constructed in underground tunnels which will be approximately 20 km. The ILC will accelerate the beams of electrons and their anti-particles, positrons, toward each other at nearly the speed of light, and collide with a total energy of 250 GeV, recreating the condition close to an initial stage of the universe. The major aim of the ILC is to explore energy regimes beyond the reach of today's accelerators, unlocking some of the deepest mysteries in the universe.
An international collaboration team has been established and Japanese researchers are working closely with researchers around the world.

Research which supports Research

Applied Research Laboratory

Applied Research Laboratory carries out research and technological development which includes radiation, environmental measurement, computer, superconductivity, cryogenics and high-precision machining required for research using accelerators. Using these technologies, we provide protection from radiation, environment conservation, management of computers and networks, liquid helium supply, production of superconducting magnets, precision measurement and manufacture of machine parts.

Black-lead pile used for carburation/development of detector



Computing servers of the central computer system

Ultra-precision machine tool

Superconducting magnet system for neutrino beam line

Research and Development of Data Analysis, Networks, Simulation

The Computing Research Center (CRC) supports research activities at KEK by operating the network infrastructure and the central computer system which provides computing power of over 10,000 CPU cores and a large amount of data storage of over 70PB. CRC also carries out R&D to provide tools and infrastructure that can efficiently match the increasing demands for storing and processing data being produced as efficiently as possible. Work on flexible computing resource provisioning environment, detector simulation tools, and automatic Feynman diagram computation, using advanced information technology to support the accelerator-related science are actively pursued.

Research and Development for Accelerator radiation

We promote collaborative research in Japan and abroad as the research center of development of a measurement method of radiation/radioactive materials generated in accelerators, date collection, and simulation system. We also monitor the environmental radiation dose, provide chemical analysis of the accelerator operation and part manufacturing, and develop a measurement method for environment conservation. For the Fukushima No. 1 nuclear power plant accident KEK works together with the local government and measures the radiation dose and release information.

Research and Development of Mechanical Engineering

The mechanical Engineering Center supports science programs at KEK by providing mechanical engineering and manufacturing expertise. We have job shops equipped with approximately 100 machine tools and support the manufacture of machine parts for institutes and laboratories. We also conduct several R&D projects on mechanical engineering in conjunction with physics and accelerator science.

Superconductivity Application in Accelerator Science and R&D for Cryogenics Technology

The Cryogenics Science Center works on research and development of the most advanced technologies such as superconductivity and cryogenics which are the fundamental technologies used for projects promoted by KEK. We developed superconducting magnets for neutrino beam line at J-PARC. Under the collaboration for the Large Hadron Collider (LHC) with the European Organization for Nuclear Research (CERN) we also developed the superconducting quadruple magnet at 10 tesla level cooled by superfluid helium. In addition, we support research on generation/circulation/recycle of refrigerants such as liquid helium to create cryogenic environment, which is necessary for experiments.

International Collaboration

International Projects in KEK

©2007 CERN

About 1800 researchers from 44 countries visit KEK to participate in joint researches and attend international conferences. SuperKEKB and T2K experiments have researchers from various countries of Europe and North America as well as the Asia and Oceania region.
Many projects, such as the Photon Factory Indian Beam line established based on the memorandum with the Department of Science & Technology, India, advanced accelerator research and development (ILC, ERL) and detector technology, are proceeding under international collaboration. At J-PARC, R&D, experiments, software development for a large scale simulation "GEANT4" is underway.

Education

Graduate University for Advanced Studies

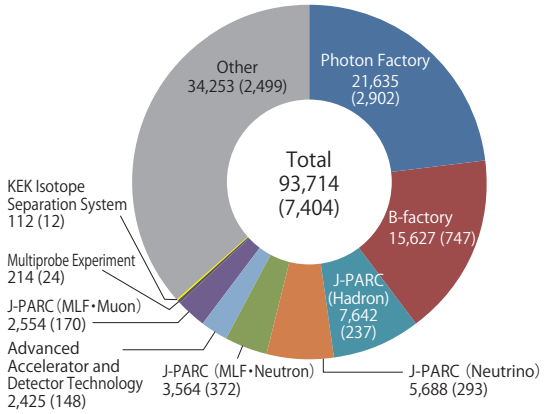
KEK, as a core institution of the Graduate University for Advanced Studies, works diligently on the education of graduate students. KEK has Accelerator Laboratory, Applied Research Laboratory, Institute of Materials Structure Science, and Institute of Particle and Nuclear Studies. The school of High Energy Accelerator Science consists of three departments: Accelerator Science, Materials Structure Science and Particle and Nuclear Physics. All departments work closely together and expand a wide range of graduate education based on research activities conducted by KEK and educate researchers who will be ideally suited to meet the demands of the new times.

Statistics

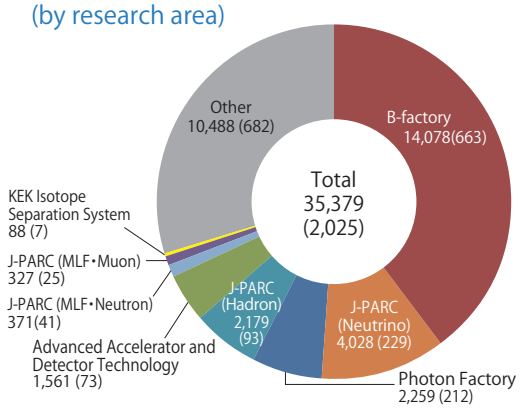
User Experimental Activities

Item / Experiment	FY2016			FY2017		
	Applications	Approved	Conducted	Applications	Approved	Conducted
B-factory	-	-	1	-	-	1
Photon Factory	401	390	763(999)	422	410	797(1014)
J-PARC (MLF・Neutron)	114	103	65	117	105	101
J-PARC (MLF・Muon)	63	62	32	81	77	57
J-PARC (Hadron)	0	0	14	1	0	14
J-PARC (Neutrino)	2	2	2	1	1	2
Multiprobe Experiment	1	0	4	0	0	1
Large Scale Simulation Program	53	53	53	25	25	25
KEK Isotope Separation System	3	3	3	2	2	2
Total	637	613	937	649	620	1000

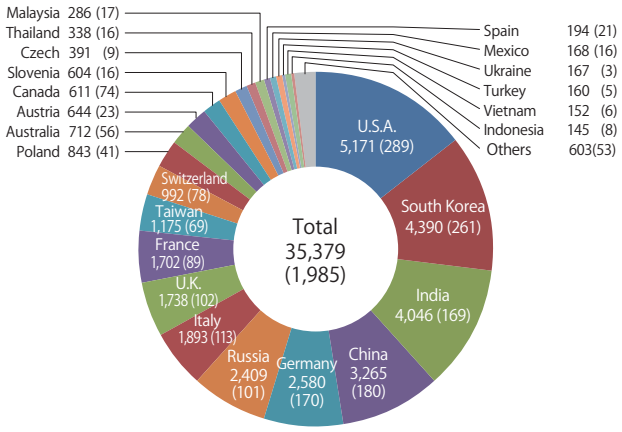
Number of Users (FY2017) [Person-days (Persons)]



Number of Users from Overseas Institutes (by research area)



Number of Users from Overseas Institutes(by country/region)



Number of Special Inter-University Researchers

Affiliation	Number
National University	32
Public University	0
Private University	1
Total	33

Institute/Laboratory	Number
Institute of Particle and Nuclear Studies	10
Institutes of Materials Structure Science	12
Accelerator Laboratory	5
Applied Research Laboratory	6

Number of International Agreement

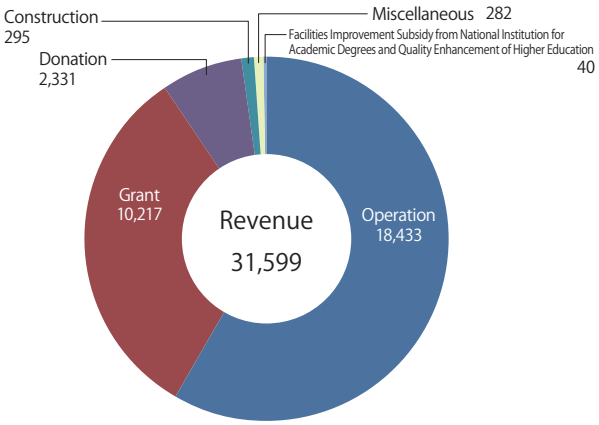
Country/Region	Number
South Korea	7
India	7
Taiwan	3
China	5
Thailand	2
Vietnam	0

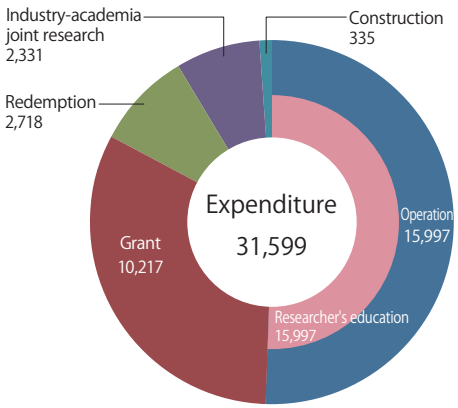
Country/Region	Number
Australia	1
U.S.A.	8
Canada	1
Chile	1
Russia	11
France	4

Country/Region	Number
Germany	4
Italy	4
Slovenia	2
Georgia	2
U.K.	2
Switzerland	0

Country/Region	Number
Austria	1
Sweden	0
Belarus	1
Poland	1
CERN	25
Multin ational	10
Total	102

Budget (FY2018) [Million JPY]





Number of staff (April, 2018)

	Director General	Executive Director	Auditor	Research & Academic Staff	Adjunct Faculty Members	Researcher	Engineer & Technician	Officer	Total
Executive and Permanent Employee	1	4	2	354	-	-	154	167	682
Fixed Term Employee	-	-	-	29	14	114	54	179	390

The Graduate University for Advanced Studies (April, 2017)

School/Department	Quota		Newly enrolled	Registered	Total enrolled
School of High Energy Accelerator Science	5-year doctoral course 3rd year transfer admission	2 A few	0 1	22	140
Department of Materials Structure Science	5-year doctoral course 3rd year transfer admission	3 A few	1 2	13	99
Department of Particle and Nuclear Physics	5-year doctoral course 3rd year transfer admission	4 A few	4 1	40	153

Joint research with private sector [10,000JPY]

FY	Number	Amount of money
2017	88	26,818

Grants to scientifi c research [10,000JPY]

FY	Number	Amount of money
2017	207	123,234

Academic consultation[10,000JPY]

FY	Number	Amount of money
2017	4	302

Grants to agencies [10,000JPY]

FY	Number	Amount of money
2017	7	88,184

Donations [10,000JPY]

Types of Donations	Number	Amount of money
Specified Offering Donation	229	1,594
General Donation	176	1,079
International Privately Financed Students Scholarship	10	29
Request for support to gaining further understanding of the ILC Project	42	287
Others	23	1,029

Trust researchers [10,000JPY]

FY	Number	Amount of money
2017	46	94,503

Facility usage fees [10,000JPY]

FY	Number	Amount of money
2017	37	12,081

Collection of books (April,2018)

Books			Journal			Total	Preprint/ Report
Japanese books	Non-Japanese books	Total	Japanese books	Non-Japanese books	Total		
13,508	26,173	39,681	5,427	44,721	50,148	89,829	131,342

※ 98,615 copies of e-books are available.

Facility (April, 2018) [m^2]

Area	Site	Building
Oho	1,531,286	197,059
Tokai	107,989	44,633
Takezono	8,350	3,412
Azuma	31,225	26,948
Total	1,678,850	272,052

※ Site of Tokai includes lease.

Number of Visitors (FY2017)

Purpose/destination of visit	Total
Guided tour	7,050
Exhibition hall	8,014
Visiting to Open-House	3,858
J-PARC	2,959
Total	21,881

Tsukuba Campus

1-1 Oho, Tsukuba, Ibaraki 305-0801 Japan
029(864)1171(dial-in number service)/
029(879)6047 (Public Relations Office)


SuperKEKB Accelerator


Cryo-EM (COI Bldg.)


Accelerator Test Facility (ATF)


PF-AR


Photon Factory (PF)

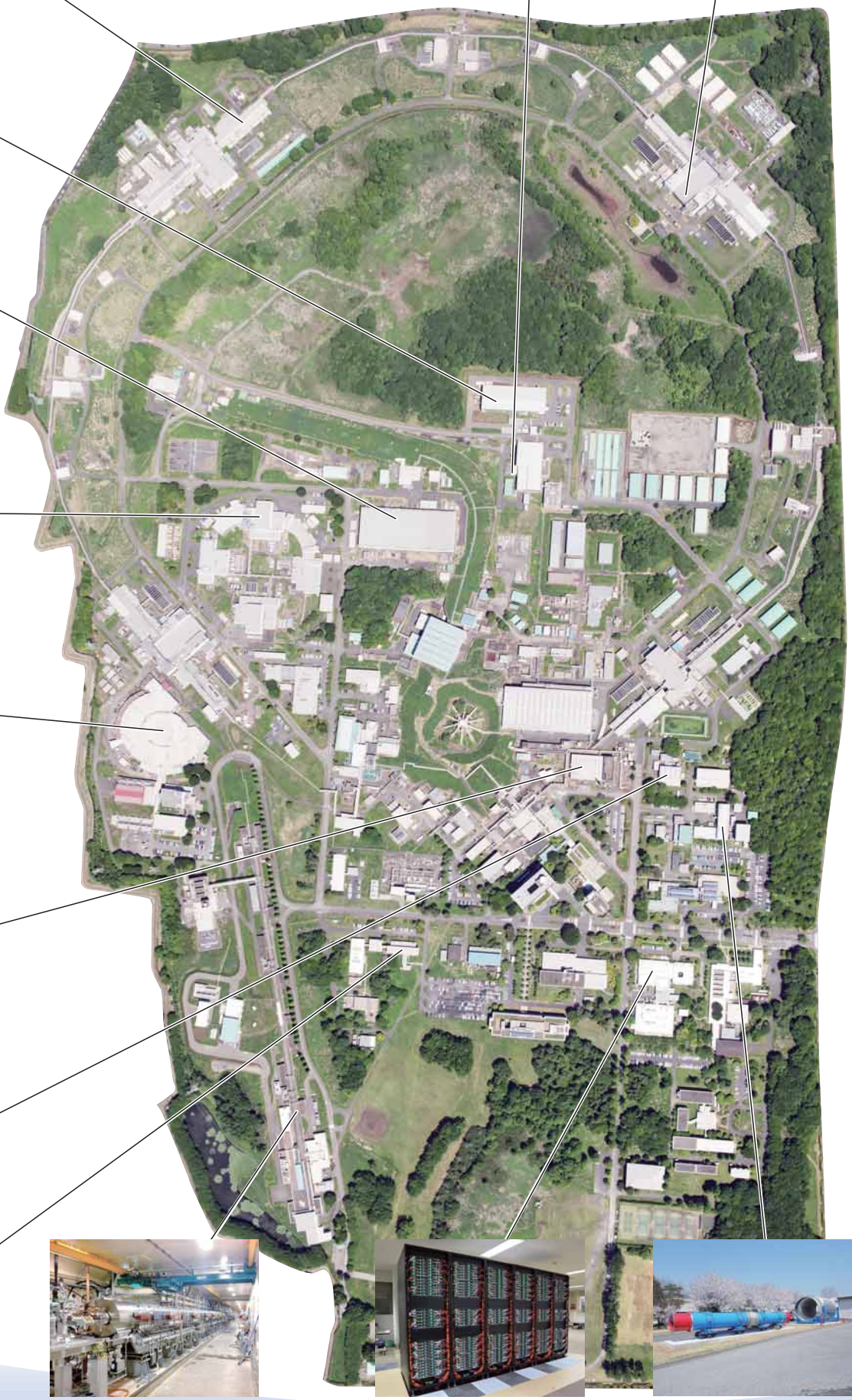

Cavity Fabrication Facility (CFF)


Mechanical Engineering Center


Radiation Science Center


Superconducting RF Test Facility (STF)


Belle II Detector



Electron-Positron Linear Accelerator

Compuring Research Center

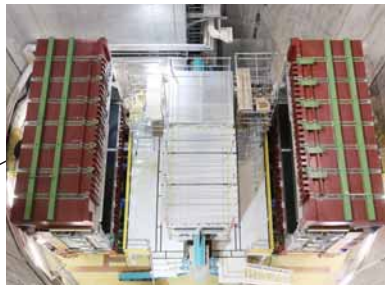
Cryogenics Science Center

Tokai Campus

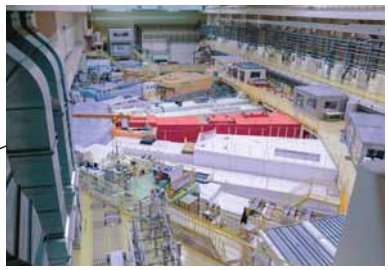
203-1 Shirakata, Tokai-mura, Naka-gun, Ibaraki 319-1106, Japan
029(284)4890

Linac

3 GeV Proton Synchrotron (RCS)



Neutrio Experimental Facility



Material and Life Science Facility

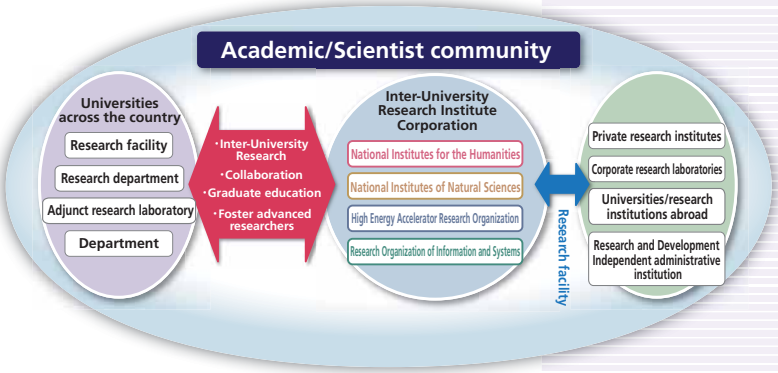
50 GeV Proton Synchrotron (MR)

Hadron Experimental Facility

The Inter-University Research Institute Corporation

The Inter-University Research Institute Corporation, a core research base where leading-edge collaborative research is conducted, provides researchers across the country with the most advanced large-scale facility available. This type of facility is difficult for individual universities to maintain. It also serves as a core function for network-type collaboration research for specific fields. The Inter-University Research Institute Corporative is a research institute originating in Japan which promotes effective collaborative research that goes beyond the university framework. KEK is an Inter-University Research Institute Corporation with two institutions. The Institute of Particle and Nuclear Studies and the Institute of Materials Structure Science.

KEK provides researchers across the country with large scale leading-edge facilities, such as accelerators, the Photon Factory, and supercomputers. At the same time, we conduct effective collaborative research using specialized techniques, expertise, and experience of KEK researchers, and make important contributions to the development of academic research in Japan.



History

◇ July 1955 The Institute for Nuclear Study at the University of Tokyo was established.
◇ April1971 The National Laboratory for High Energy Physics in Tsukuba was established.
◇ April1997 The High Energy Accelerator Research Organization and Tanashi office were established.
◇ April 2004 The Inter-University Research Institute Corporation, High Energy Accelerator Research Organization was established.
◇ April 2005 The Tokai Campus was established.
◇ February 2006 J-PARC Center was established jointly with the Japan Atomic Energy Agency.

Visit KEK and KEK Caravan (dispatch of an instructor)

KEK Tsukuba Campus offers guided tours for tour groups of more than 10 people each. The Tsukuba Campus also has a program called "KEK Caravan", when KEK sends a researcher or staff members as an instructor to schools and organizations all over the country. For further information please contact the addresses belgo below.

Tsukuba Campus
About 20 minutes from "Tsukuba station" by bus, and about 30 minutes from "Sakura-Tsuchiura IC" of the Joban Expressway.

Tokai Campus
About 10 minutes by taxi from Tokai station on the JR Joban line. About 20 minutes from "Naka IC"and "Hitachiminami-Ota IC" of the Joban Expressway and about 10 minutes from "Hitachi-Naka IC" of the Kita-Kanto Expressway.

Inter-University Research Institute Corporation
High Energy Accelerator Research Organization

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1-1 Oho, Tsukuba, Ibaraki 305-0801 Japan
029(879)6047 (Public Relations Office)

◆Tokai Campus
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029(284)4851

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