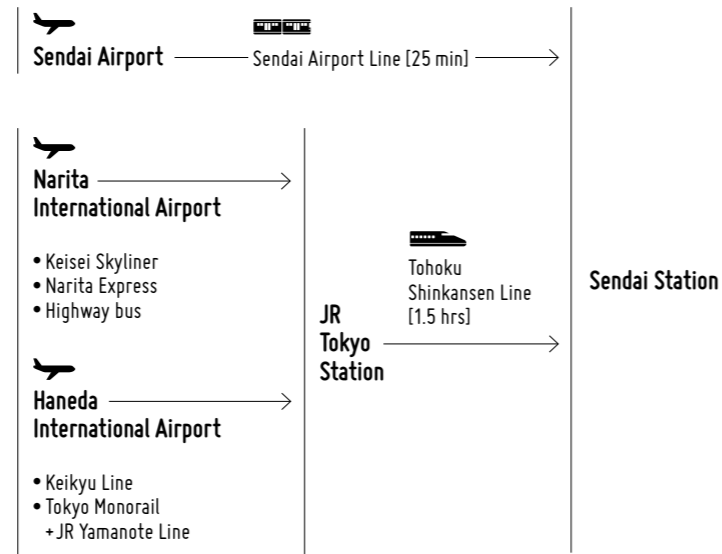
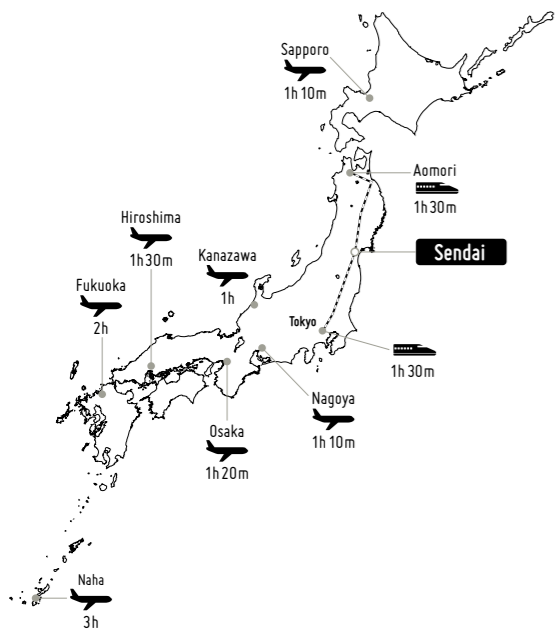




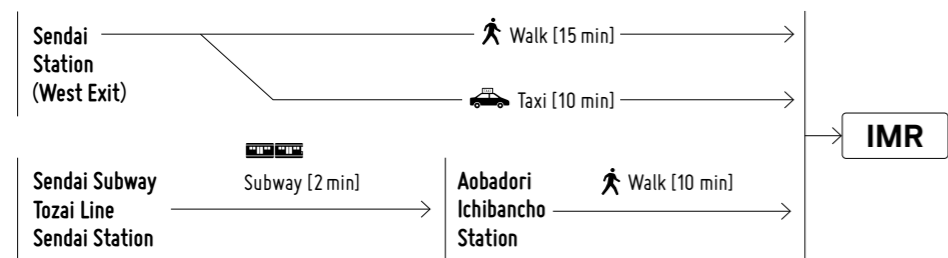
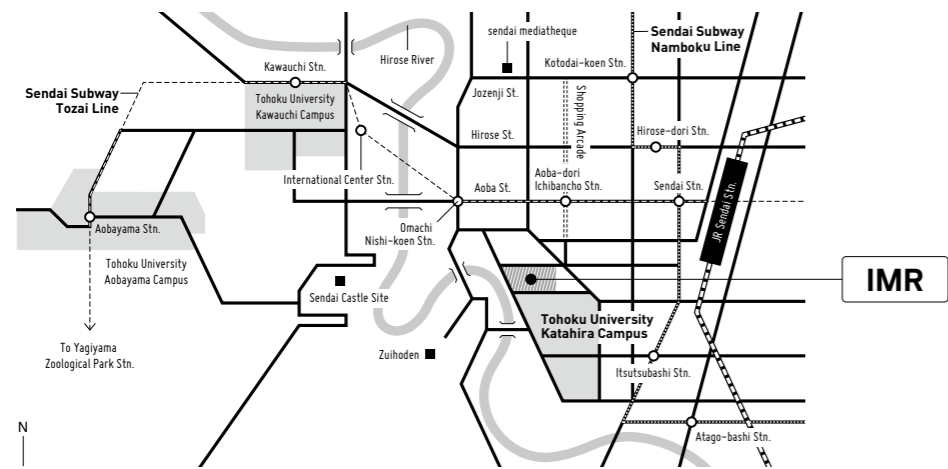
ENGLISH ver.

Travel time from major cities to Sendai

Access to Sendai station from major airports



Access to IMR from Sendai Station



# IMR

## INSTITUTE FOR MATERIALS RESEARCH

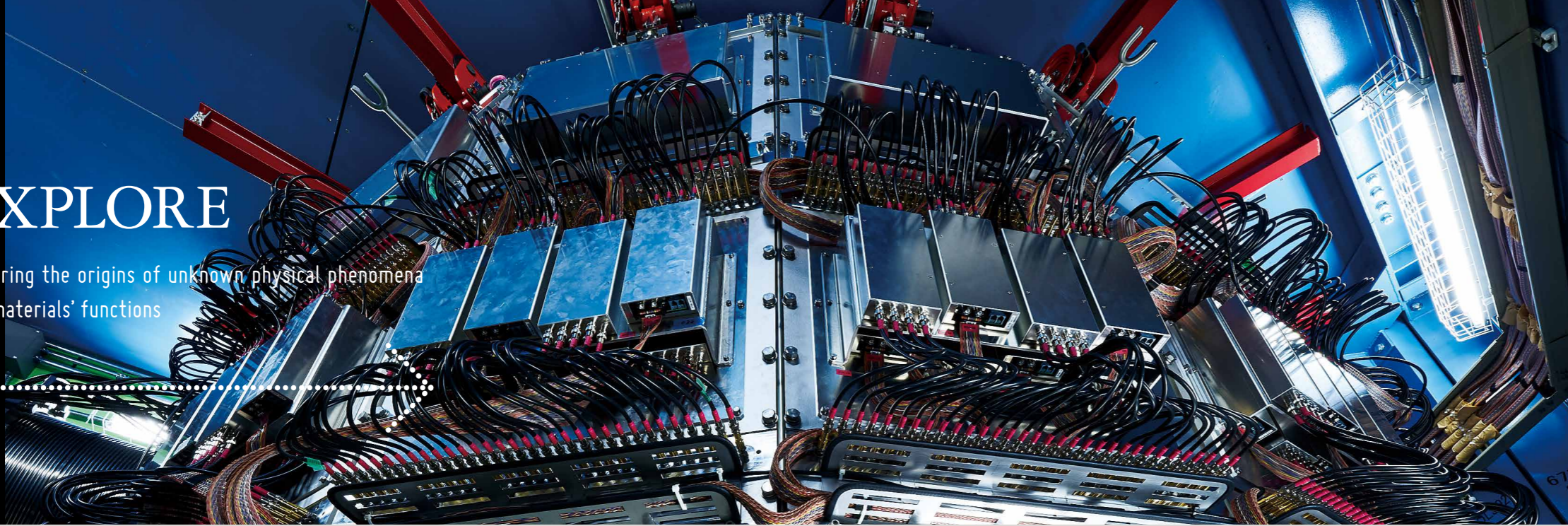
# TOHOKU UNIVERSITY

ENGLISH VER.

# KINKEN

# EXPLORE

Exploring the origins of unknown physical phenomena and materials' functions



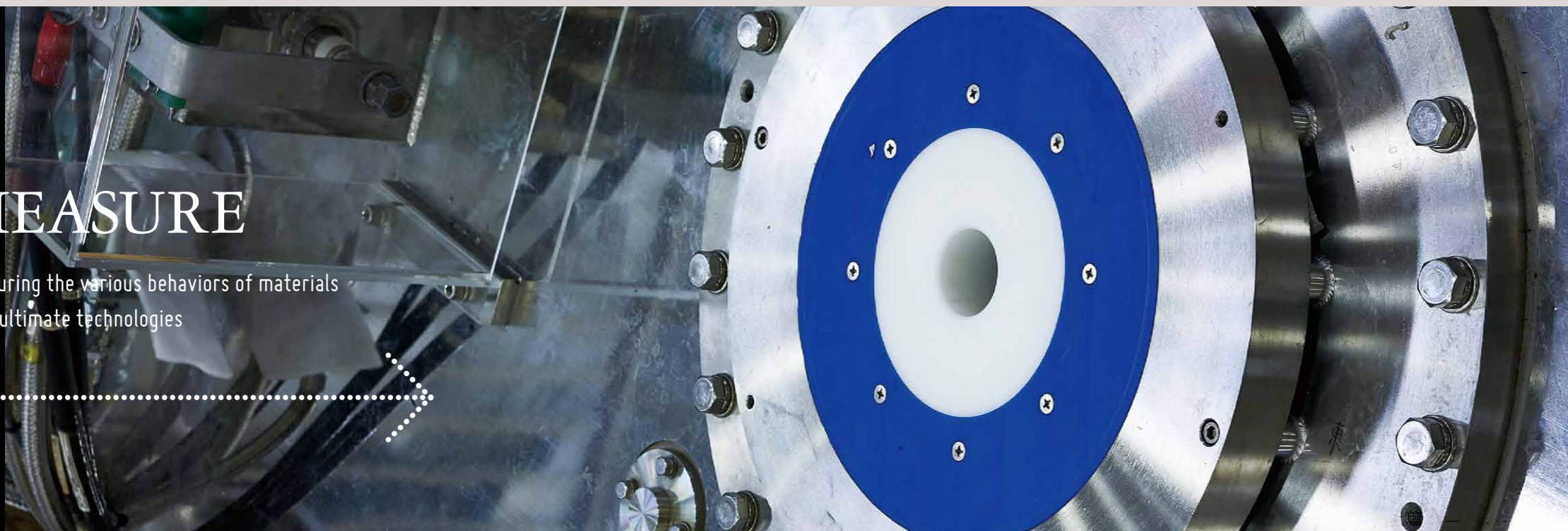
# CREATE

Creating new materials with unprecedented and revolutionary functions by understanding the essence of substances



# MEASURE

Measuring the various behaviors of materials with ultimate technologies



The future after 100 years and beyond—

The essential research methods—exploration, creation, and measurement:

by closely connecting these methods, IMR has been leading the world's materials research for more than 100 years.

“Contributing to the well-being of humankind through creating truly useful materials.”

Under this founding philosophy, we keep moving forward in the next 100 years.

Top: Polarization Analysis Neutron Spectrometer, POLANO  
Middle: Ce:GAGG Scintillator Crystal  
Bottom: 25 T Cryogen-free Superconducting Magnet



**GIMRT**  
Global Institute for Materials Research Tohoku

Together with researchers from all over the world, we aim to discover scientific principles of materials science and contribute to society.

Promoting worldwide collaborative research by making intellectual resources and facilities available to domestic and international researchers

Common Foundational Research / Large-Scale Research Facility

Conducting theoretical research, investigating basic physical properties, and developing new methods of analysis; laying the foundation for the development of materials science.



# Materials Science: Pioneering the Future

The Institute for Materials Research at Tohoku University, commonly known as IMR or KINKEN in Japanese, has a rich history spanning over one hundred years. Dr. Kotaro Honda founded it as the 2nd Division of the Provisional Institute of Physical and Chemical Research at Tohoku Imperial University in 1916. The institute's founding philosophy is "to contribute to the development of civilization and the well-being of mankind through creating new materials that are truly useful to society by conducting both fundamental and applied research on various materials such as metals, semiconductors, ceramics, compounds, organic materials, and composite materials." To this end, today nearly 500 faculty members, research associates, and students investigate scientific principles related to material-based sciences and their applications.

IMR started its journey with a focus on iron and steel materials, but as times changed and research progressed, its scope expanded to include the fundamentals and applications of various materials, including non-metals such as semiconductors and ceramics. With these changes, the institute changed its name from the Research Institute for Iron, Steel and Other Metals (RIISOM) to the current one in 1987. Ever since Dr. Honda, its first director, invented the world's first artificial permanent magnet called KS magnet steel, the institute has developed many new materials for practical use, including Sendust alloy, SiC fibers, and soft magnetic amorphous alloys, and has also conducted not only fundamental research, but also pioneering research in the search for new materials and the elucidation of physical properties such as magnetism and superconductivity. It has become a global center in materials science.

A key feature of IMR is its fusion of fundamental and applied research, as well as science and engineering fields. Additionally, the institute stands out for its joint research with both domestic and international researchers, utilizing world-class facilities for experiments (high-energy irradiation testing, high magnetic fields, supercomputers, etc.) and for the creation and evaluation of new materials. In 2018, IMR was certified as the International Joint Usage/Research Center for Materials Science, known as "Global Institute for Materials Research Tohoku" (GIMRT). IMR is committed to further promoting research and fostering the next generation of researchers, and putting into practice Dr. Honda's words, "Industry is the training ground of academics," it also focuses on including industry-academia collaboration and engineer training.

IMR is committed to creating a sustainable society, a goal shared by the global community. Its materials science research has the power not only to solve issues but also to positively transform society. The institute is dedicated to supporting the international competitiveness of Japan's materials manufacturing and engaging in global endeavors to create academic intellectual property shared by humankind. IMR will continue to work on innovative materials science research that will bring about a paradigm shift with a long-term vision and contribute to developing the next generation of researchers and leaders.

In December 2024, Tohoku University was designated as the first University for International Research Excellence (UREX) by the Japanese Ministry of Education, Culture, Sports, Science and Technology. As one of its core divisions, IMR will strive to become a truly world-leading research organization by 2050. One of our key goals is to realize a sustainable society in collaboration with the international community. Materials science research conducted at IMR has the potential not only to address current challenges but also to transform future society into a more attractive and prosperous one. IMR will continue to contribute to strengthening the international competitiveness of Japan's manufacturing industry, while also promoting efforts to accumulate, develop, and pass on shared academic assets and valuable technologies for humanity, as well as to communicate the appeal of materials science to society.

I look forward to everyone's continued support and cooperation in achieving these goals.

The 23rd Director of Institute for Materials Research, Tohoku University

Takahiko SASAKI

*Takahiko Sasaki*

## Contact

## Collaborating with IMR

### For Researchers

— GIMRT\* accepts your proposal submissions

A\_ If you already have GIMRT login ID,  
➡ go to GIMRT user system page  
<https://gimrt.appli.imr.tohoku.ac.jp/login>



B\_ To explore GIMRT's programs  
and their corresponding laboratories/centers,  
➡ go to GIMRT's website  
<http://gimrt.www.imr.tohoku.ac.jp/en/>



\* GIMRT (Global Institute for Materials Research Tohoku) is a program accredited by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), where researchers from Japan and abroad conduct joint research based on shared research themes. As a global hub for materials science, it supports the development of international collaborative research activities.

## Studying at IMR

### As Graduate Students or Special Research Students

To study at IMR as "Graduate Students," you must pass an entrance exam of an appropriate graduate school that the laboratory you wish to be affiliated with offers collaborative courses at. As "Special Research Students," you are allowed to receive research guidance from IMR professors while being enrolled at a different domestic or foreign graduate school. For either student status, please contact the admissions office of the appropriate graduate school for more information.

List of  
Collaborative  
Courses



List of  
Graduate School's  
Admissions Office



### As Research Students

As "Research Students," with the approval of your supervising professor, you have some flexibility in planning your study — such as in setting the start and finish dates of the research guidance period. This is a non-degree program, and therefore, you will not receive any degree. Working professionals and foreigners can also apply. The international students who are from the educational institutions that have Academic Exchange Agreements with Tohoku University or IMR may be exempt from paying certain fees.

### Contact

General Affairs Section of Institute for Materials Research:  
[imr-som@grp.tohoku.ac.jp](mailto:imr-som@grp.tohoku.ac.jp)

## Supporting IMR Researchers

IMR gratefully accepts donations to further promote research and education of IMR students and young researchers. Please visit the website to find out more about the ways to donate, purposes of donations, and the donor recognitions and benefits.

Website (in Japanese only): <http://www.imr.tohoku.ac.jp/ja/about/donation/>



in Japanese only