

Low-Energy Electron Scattering for Nucleon and Exotic Nuclei (LEES2024)

Date : Oct. 28 - Nov. 1, 2024

Place : Sendai, JAPAN

participants 60

overseas 27

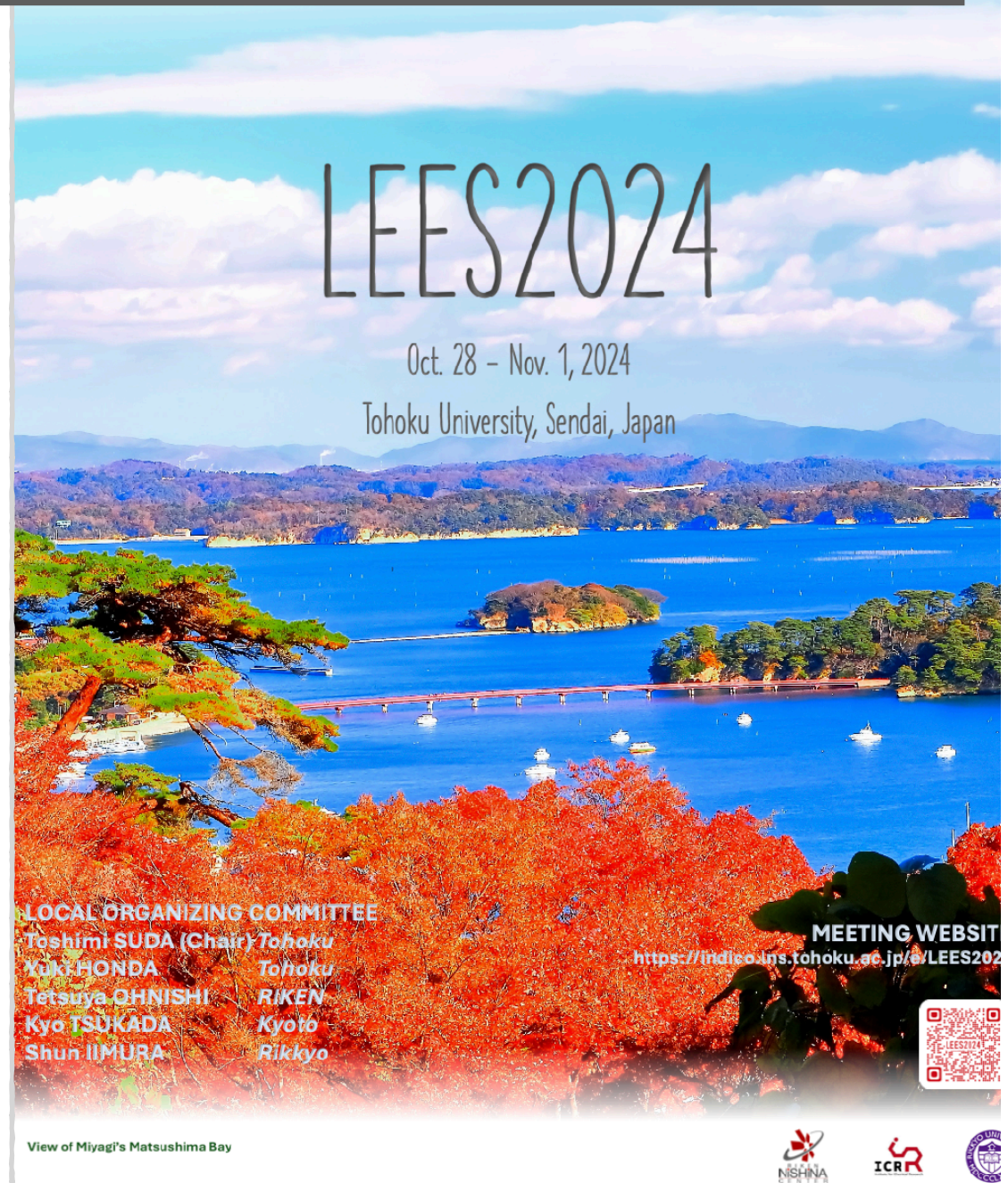
Oct. 28 reception

29 poster session

30 excursion

31 banquet

Nov. 1 RARiS facility




LEES2024
Oct. 28 - Nov. 1, 2024
Tohoku University, Sendai, Japan

LOCAL ORGANIZING COMMITTEE
Toshimi SUDA (Chair) Tohoku
Yuki HONDA Tohoku
Tetsuya OHNISHI RIKEN
Kyo TSUKADA Kyoto
Shun IIMURA Rikkyo

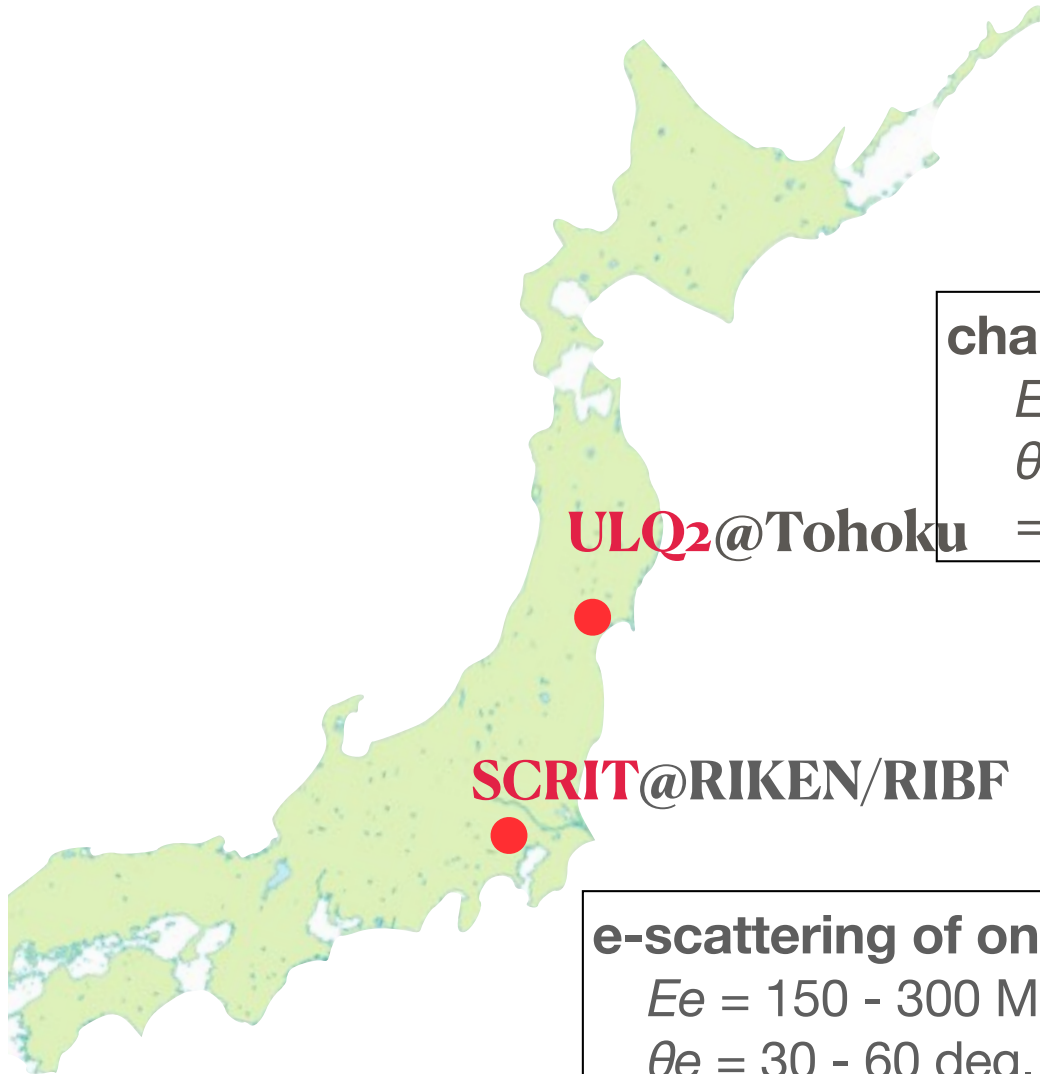
MEETING WEBSITE
<https://indico.lns.tohoku.ac.jp/e/LEES2024>

View of Miyagi's Matsushima Bay

NISHINA CENTER ICRP



Low-energy electron scattering activities in Japan



charge radii of proton and deuteron (neutron)

$$E_e = 10 - 60 \text{ MeV}$$

$$\theta_e = 30 - 150 \text{ deg.}$$

$$\Rightarrow Q^2 = 3 \times 10^{-5} - 0.013 \text{ (GeV/c)}^2$$

ULQ2@Tohoku

SCRIT@RIKEN/RIBF

e-scattering of online-produced exotic nuclei ($\sim 10^7/\text{sec}$)

$$E_e = 150 - 300 \text{ MeV}$$

$$\theta_e = 30 - 60 \text{ deg.}$$

$$\Rightarrow q = 80 - 300 \text{ MeV/c}$$

$$Q^2 = 0.006 - 0.09 \text{ (GeV/c)}^2$$

world's first !!

Electron scattering provides a long-awaited view of unstable nuclei

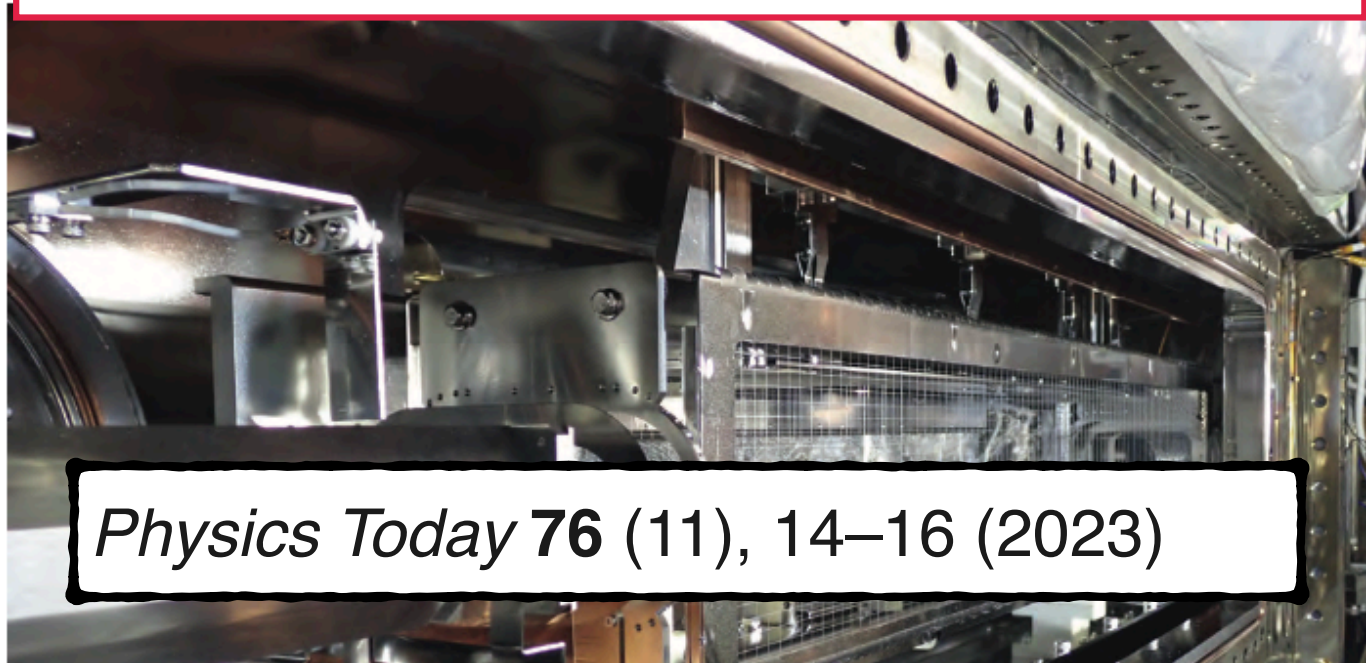
Nuclear reactions produce a plethora of short-lived artificial isotopes. Figuring out what they look like has been a challenge.

The cartoon picture of an atomic nucleus looks kind of like the inside of a gumball machine that dispenses only two flavors: protons and neutrons,

stranger the structures it can adopt. Short-lived nuclei might form bubble structures with depleted central density, or they might have a valence nu-

and colleagues, working at RIKEN's Radioactive Isotope Beam Factory (RIBF) in Wako, Japan, have performed the first electron-scattering experiment on unstable nuclei produced on the fly in a nuclear reaction.¹ Their isotope of choice, cesium-137, has a half-life of 30 years. It's not so exotic that the research-

electron scattering - *the gold standard for probing nuclear structure* - has been off limits to short-lived nuclei

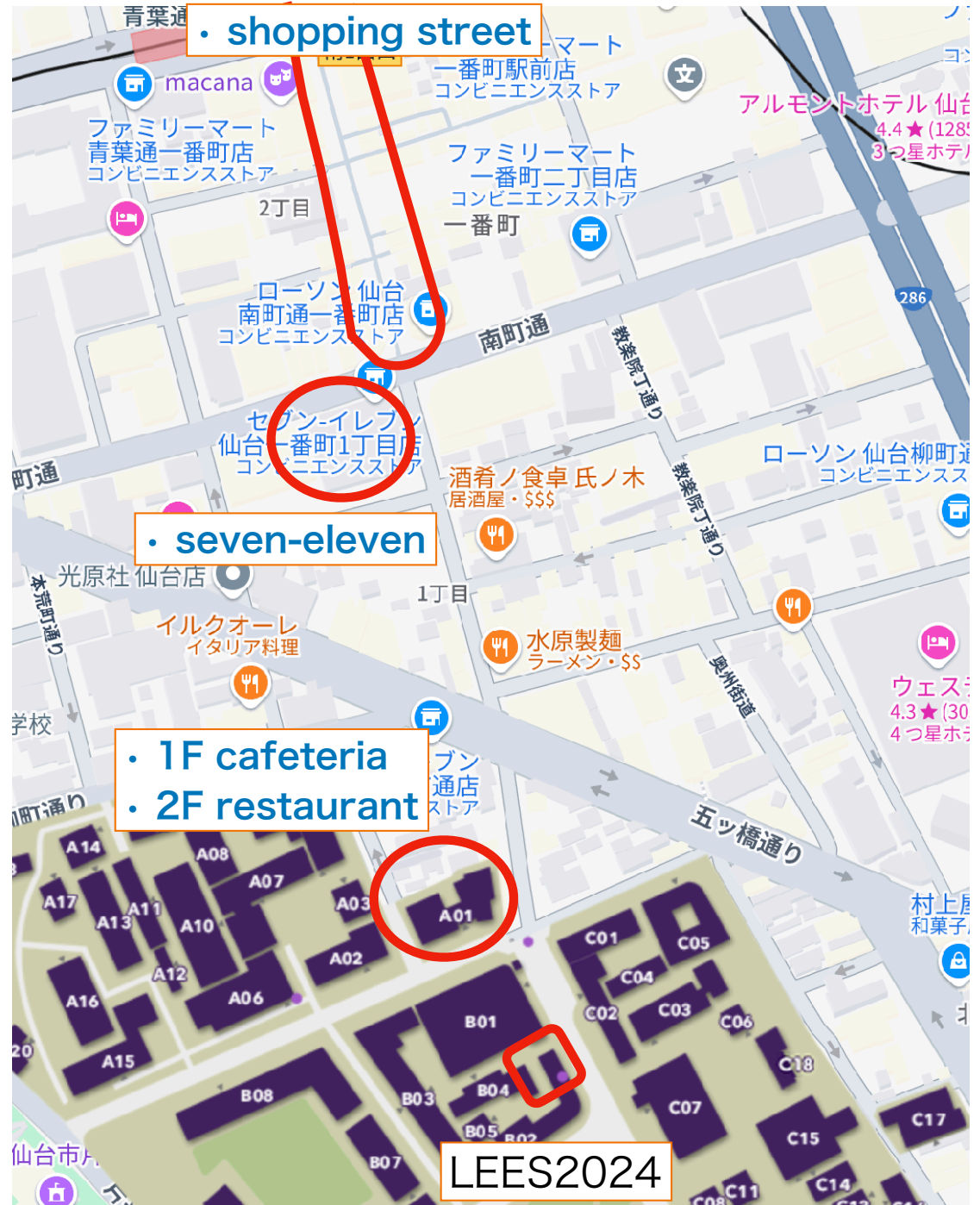


Physics Today 76 (11), 14–16 (2023)

Lunch etc.

Lunch : 1) so many options
in the city center
2) campus cafeteria
campus restaurant

Stores : 1) campus store
2) “seven-eleven”
3) many in downtown



Wifi : eduroam only

we have several eduroam guest accounts

contact LOC if you need

Coffee break : 1F foyer

3F water

LOC members

Toshimi SUDA (Tohoku)

Yuki HONDA (Tohoku)

Tetsuya OHNISHI (RIKEN)

Shun IIMURA (Rikkyo)

Kyo TSUKADA (Kyoto)

Yuka CHIBA (Tohoku)

Midori TAKEMON (Kyoto)



Special exhibition on the famous Chinese writer, Lu Xun,

東北大学史料館 × 北京魯迅博物館 共催
留学生120周年企画展示

入場
無料

魯迅の 読書生活

2024 10.26(土) → 11.30(土)

第一会場 東北大学史料館 2階展示室 10:00-17:00

第二会場 本部棟3階教室展示ルーム 10:30-16:00

※第一会場:土日祝は16:30まで ※第二会場:12:00-13:00は閉室 ※ご来館の際は公共交通機関をご利用下さい

Financial support for the LEES workshop

- JSPS



- Sendai city



- Grad. School of Science, Tohoku Univ.



- RARiS, Tohoku Univ.



- Nishina Center, RIKEN



- Kyoto University



LEES2024 Reception

- 1) October 28 (Monday) 19:00 -
- 2) AIMR (next building) 5F floor

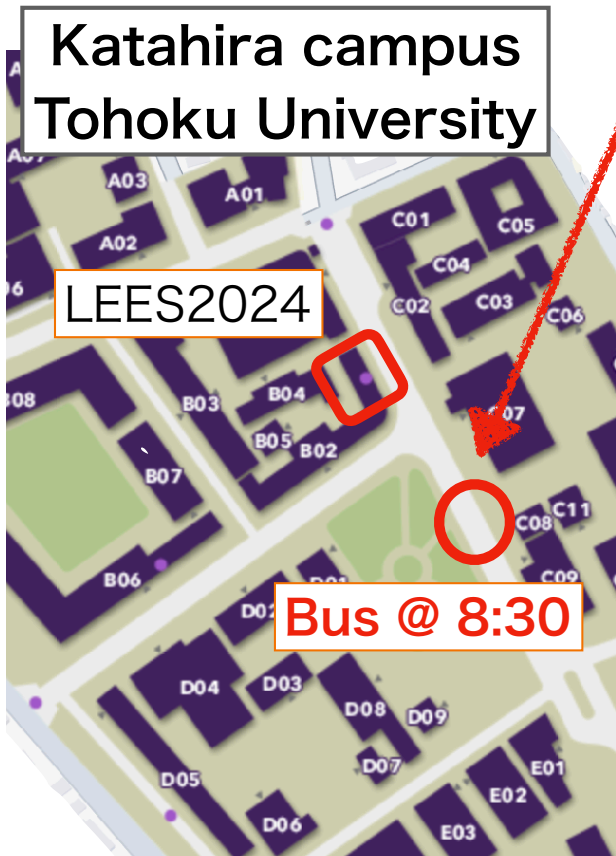
Katahira campus
Tohoku University



LEES2024
we are here!!

LEES2024 Excursion

- 1) October 30 (Wednesday) 8:30 - 17:00
- 2) Matsushima (one of the three most scenic spots of Japan)
<https://www.matsushima-kanko.com/en/>



Time	Events	Place/Transportation
8:30	meet up	Katahira Campus
		Bus
9:45		Shiogama Port
10:00		Excursion boat
11:30		Shiogama Port
		Bus
12:00	Lunch	TAIKANSO restaurant
		Bus
13:30		Zuiganji-Temple
15:00		Free time at Matsushima area
16:00		Meet at Bus parking place announced later
		Bus
17:00	Return	Katahira Campus



LEES2024 Banquet @ “SS30”

“SS30” is a landmark skyscraper located in the heart of Sendai City.

1) October 31 (Thursday) welcome drink 18:30 -
dinner 19:00 -

2) Restaurant



SS30-building 28F



LEES2024@RARiS

Research Center for **A**ccelerator and **R**adioisotope **S**cience

1) Meeting on Nov.1 (Fri.) will be held at the RARiS facility

LEES sessions + ULQ2 tour

Lunch box will be provided

2) Bus service

Katahira (8:30) => RARiS

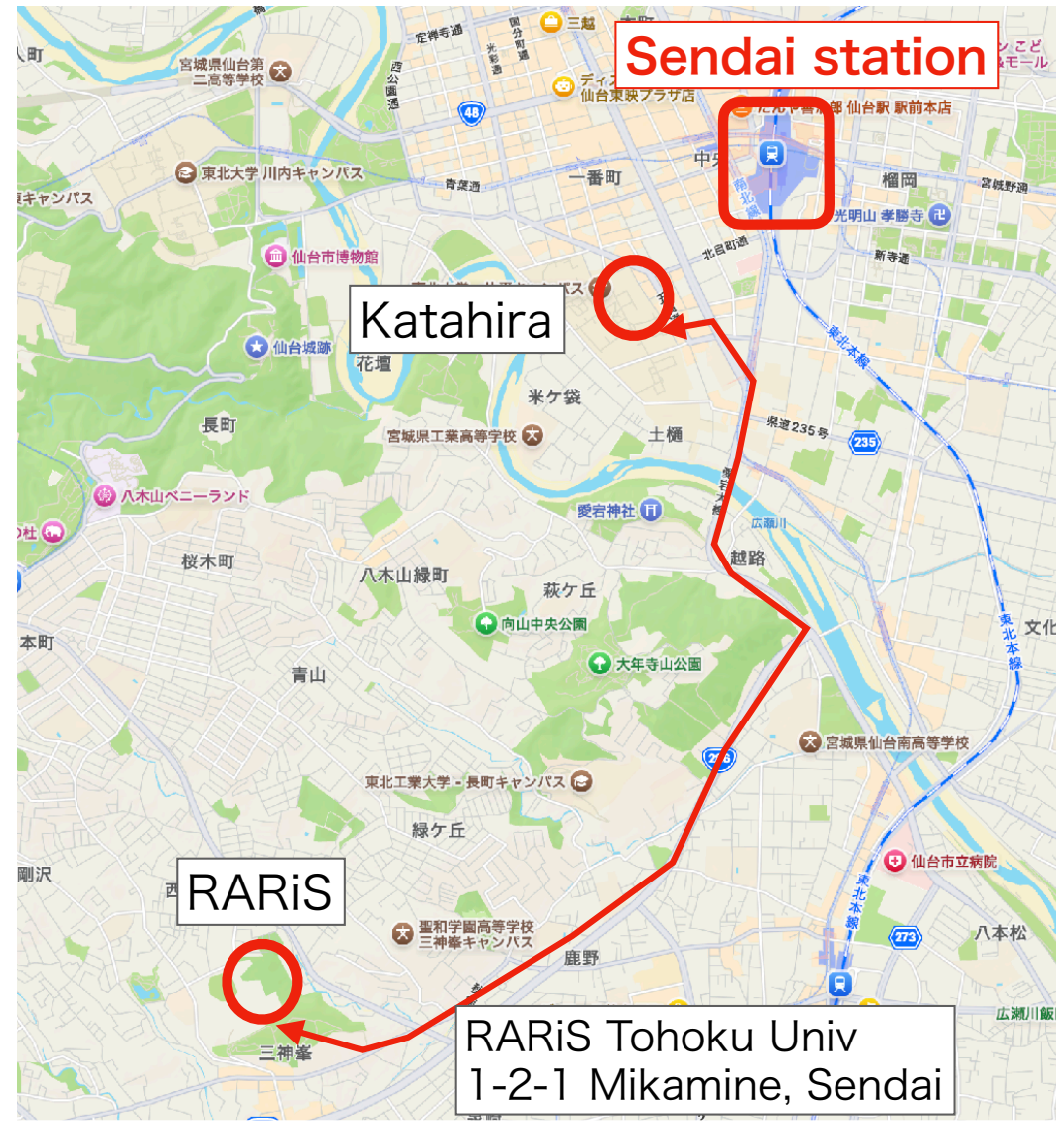
RARiS session starts at 9:15

RARiS => Katahira (~17:00)

**Katahira campus
Tohoku University**

LEES2024

Bus @ 8:30



Sendai station

Katahira

RARiS

**RARiS Tohoku Univ
1-2-1 Mikamine, Sendai**

LEES2024 Excursion on Oct. 30

Matsushima Bay Area

Time	Place/Transportation
8:30	Katahira Campus Bus
9:45	Shiogama Port Excursion boat
10:00	Shiogama Port Bus
11:30	Lunch @TAIKANSO Hotel Bus
12:00	Zuiganji-Temple
13:30	Free time
15:00	Bus @ parking place Bus
16:00	Katahira Campus

