

# TOPTIER CNS Summer School 2026

23–28 August 2026 | IBS Science Culture Center (SCC), Daejeon, Republic of Korea

We are pleased to welcome you to the TOPTIER CNS Summer School 2026 (TOPTIER-CNSSS26), Sunday, 23 August – Friday, 28 August 2026. This brief information sheet summarizes the program, venue, meals, and practical information for your stay in Daejeon. Please check the Indico timetable for the latest program updates.

Home page: <https://indico.ibs.re.kr/event/1225/overview>

## 1. School Overview

|                         |                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dates</b>            | Sunday, 23 August – Friday, 28 August 2026                                                                                                                                                                                  |
| <b>Venue</b>            | IBS Science Culture Center, Institute for Basic Science (IBS) Headquarters, Daejeon                                                                                                                                         |
| <b>Purpose</b>          | Training and scientific exchange for the next generation of nuclear physicists, with lectures by leading researchers and Young Scientist oral/poster sessions.                                                              |
| <b>Program Overview</b> | Lectures on ab initio nuclear reactions, nuclear shell model, quantum computing for nuclear structure, quantum sensing detectors, quark models, RAON and RIBF; Young Scientist Sessions; poster session; RAON tour; awards. |

## 2. Program at a Glance

| <b>Date</b>        | <b>Main Activities</b>                                                                                            |
|--------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Sun, Aug 23</b> | 16:30–17:45 Registration, 17:45–20:00 Welcome Reception                                                           |
| <b>Mon, Aug 24</b> | 09:00 Opening, lectures, 16:30–17:45 Student Research Oral Presentation – Session I                               |
| <b>Tue, Aug 25</b> | Lectures*, 16:30–17:45 Student Research Oral Presentation-Session II, 17:45–19:00 Student Poster Session (Dining) |
| <b>Wed, Aug 26</b> | Lectures*, 15:00–18:00 RAON Tour                                                                                  |
| <b>Thu, Aug 27</b> | Lectures, 14:45, Student Research Oral Presentation – Session III & IV, 18:30–20:30 Banquet (SCC 3rd Floor)       |
| <b>Fri, Aug 28</b> | Lectures, 16:30–17:45 Closing & Awards                                                                            |

Latest timetable: <https://indico.ibs.re.kr/event/1225/timetable/>

<\* Note> The lecture “Nuclear Shell Model Calculations and KSHELL Code” by Prof. Shimizu on Tuesday and Wednesday will include hands-on exercises in shell-model calculations using the KSHELL code. Participants are therefore requested to bring a laptop with a Fortran compiler installed. If possible, Python 3 should also be installed in advance.

## 3. Venue & Access

IBS Science Culture Center (SCC) is located at the IBS Headquarters in the Expo/Science Park area of Daejeon. The summer school sessions will be held at the Auditorium of the 2<sup>nd</sup> floor and the Sunday registration and reception will be held in the 3<sup>rd</sup> floor of the Science Culture Center. Please allow extra time on the first day for registration.

**Access to the Venue:** The IBS Science Culture Center (SCC) is open to the public. No ID or special access authorization is required to enter the SCC for the summer school.

Useful landmark: Daejeon Convention Center (DCC), Expo Science Park, and Shinsegae Art & Science are nearby.



## 4. Navigation in Korea – NAVER Map Recommended

Google Maps may have limited navigation functionality in Korea. We recommend installing NAVER Map before arrival, especially for walking directions, public transportation, taxi destinations, and nearby restaurants. NAVER Map provides an English interface on iOS and Android.

- IBS Science Culture Center — IBS 과학문화센터
- Daejeon Convention Center (DCC) — 대전컨벤션센터
- Daejeon Shinsegae Art & Science — 대전신세계 Art & Science

**NAVER Map:** <https://map.naver.com/>

## 5. Lunch & Dining Near the Venue

Lunch breaks are scheduled for approximately 11:45–13:30. Participants may use IBS cafeteria, and restaurants, cafés at the 5<sup>th</sup> floor and food courts at the 1<sup>st</sup> basement in the Shinsegae Art & Science building near IBS SCC building. And the DCC/Expo area may provide the widest selection within a walk from the venue, depending on the destination.

Shinsegae Art & Science is a convenient option when a wider choice of Korean and international food is preferred.

| Area / Place                               | Interests                                                                          |
|--------------------------------------------|------------------------------------------------------------------------------------|
| <b>Daejeon Shinsegae Art &amp; Science</b> | Many Korean and international restaurants, cafés, and food options in one location |
| <b>DCC / Expo area</b>                     | Restaurants and cafés close to the convention and science-park area                |
| <b>Doryong-dong</b>                        | A variety of local restaurants within a short distance of IBS                      |
| <b>Sungsimdang DCC (성심당 DCC 점)</b>         | Daejeon’s well-known bakery; convenient for coffee, bread, snacks, or a light meal |

Tip: Search the English or Korean place names above in NAVER Map for walking routes, estimated travel time, and nearby alternatives.

## 6. RAON Site Visit – Wednesday, August 26

The RAON site visit is scheduled for Aug 26, Wednesday afternoon, 15:00–18:00. Transportation and detailed instructions for the visit will be provided by the organizers. There is limited number of visitors can be applied.

**Important:** The RAON site visit is separate from normal access to the IBS Science Culture Center. Please follow any site-specific access and safety instructions announced for the tour.

## 7. Practical Notes

- Late August in Daejeon is usually hot and humid. Light clothing is recommended, with a light jacket for air-conditioned lecture rooms.
- Young Scientist presenters should check the latest Indico timetable for their assigned oral/poster session.
- Please arrive a little early on the first day for registration.
- Official group-meal or transportation information, if applicable, will be announced separately by the organizing committee.

## 8. Official Event Page

TOPTIER CNS Summer School 2026 – IBS Indico <https://indico.ibs.re.kr/event/1225/>

Please use the official event page as the primary source for last-minute program changes.

**We look forward to welcoming you to Daejeon and to a productive and enjoyable TOPTIER-CNSSS26.**

**TOPTIER-CNSSS26 Organizing Committee**

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# TOPTIER-CNS Summer School 2026

## Timetable

IBS Science Culture Center | Aug 23–29, 2026 | Asia/Seoul

| Time  | Sun 23 Aug   | Mon 24 Aug                                                                          | Tue 25 Aug                                                                            | Wed 26 Aug                                                                                  | Thu 27 Aug                                                               | Fri 28 Aug                                                                |
|-------|--------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 09:00 |              | 09:00–10:15<br>Opening<br>Group Photo                                               | 09:00–10:15<br>Nuclear Shell Model<br>KSHELL Code<br>Noritake Shimizu                 | 09:00–10:15<br>Nuclear Shell Model<br>KSHELL Code<br>Noritake Shimizu                       | 09:00–10:15<br>Quantum Sensing Detector I<br>Magnus Mager                | 09:00–10:15<br>Quark Model<br>Su Hyoung Lee                               |
| 10:00 |              | 10:15–10:30 / Break                                                                 | 10:15–10:30 / Break                                                                   | 10:15–10:30 / Break                                                                         | 10:15–10:30 / Break                                                      | 10:15–10:30 / Break                                                       |
| 11:00 |              | 10:30–11:45<br>Ab Initio Calculations of<br>Nuclear Reactions<br>Petr Navrátil      | 10:30–11:45<br>Ab Initio Calculations of<br>Nuclear Reactions<br>Petr Navrátil        | 10:30–11:45<br>Nuclear Shell Model<br>Noritake Shimizu                                      | 10:30–11:45<br>Quark Model<br>Su Hyoung Lee                              | 10:30–11:45<br>Quantum Sensing Detector II<br>Magnus Mager                |
| 12:00 |              | 11:45–13:30<br>Lunch                                                                | 11:45–13:30<br>Lunch                                                                  | 11:45–13:30<br>Lunch                                                                        | 11:45–13:30<br>Lunch                                                     | 11:45–13:30<br>Lunch                                                      |
| 13:00 |              | 13:30–14:45<br>Nuclear Sensitivity Studies<br>with Deep Learning<br>Kyunguk Chae    | 13:30–14:45<br>Nuclear structure studies<br>by decay spectroscopy<br>Hiroshi Watanabe | 13:30–14:45<br>Experimental studies for<br>Explosive Nucleosynthesis<br>Sungheon (Tony) Ahn | 13:30–14:45<br>Overview of BBF and<br>Related Topics<br>Shunji Nishimura | 13:30–14:45<br>Machine Learning and<br>Quantum Computing<br>Haoshao Liang |
| 14:00 |              | 14:45–15:00 / Break                                                                 | 14:45–15:00 / Break                                                                   | 14:45–15:00 / Break                                                                         | 14:45–15:00 / Break                                                      | 14:45–15:00 / Break                                                       |
| 15:00 |              | 15:00–16:15<br>Experimental Studies for<br>Explosive Nucleosynthesis<br>S. Tony Ahn | 15:00–16:15<br>Soft Skills<br>Scientific Presentation<br>and Writing                  | 15:00–18:00<br>RAON Tour                                                                    | 15:00–16:15<br>Student III                                               | 15:00–16:15<br>Machine Learning and<br>Quantum Computing<br>Haoshao Liang |
| 16:00 |              | 16:15–16:30 / Break                                                                 | 16:15–16:30 / Break                                                                   |                                                                                             | 16:15–16:30 / Break                                                      | 16:15–16:30 / Break                                                       |
| 17:00 | Registration | 16:30–17:45<br>Student I                                                            | 16:30–17:45<br>Student II                                                             |                                                                                             | 16:30–17:45<br>Student IV                                                | 16:30–17:45<br>Closing (Awards)                                           |
| 18:00 | Reception    |                                                                                     | 17:45–19:00<br>Poster Session                                                         | 18:30–18:20<br>Group Photo                                                                  |                                                                          |                                                                           |
| 19:00 |              |                                                                                     |                                                                                       |                                                                                             | 18:30–20:30<br>Banquet                                                   |                                                                           |
| 20:00 |              |                                                                                     |                                                                                       |                                                                                             |                                                                          |                                                                           |