



# Organizing the IPAC'25 Conference

Jui-Che Huang ,  
Chair of Local Organizing Committee

16<sup>th</sup> International Particle Accelerator Conference



**NSRRC**  
Taiwan Photon Source



# Taiwan Host Highlight



Taiwan on the  
Global Stage



World-Class Scientific  
Academic Exchange



International Industry  
Collaboration



Cultivating Future  
Talent and Leadership



Power of Team Unity



## National Synchrotron Radiation Research Center (NSRRC)

NSRRC is a non-profit research institute, funded by the National Science and Technology Council (NSTC) in Taiwan. It is located in the Hsinchu Science Park, which is hailed as the “Silicon Valley of Taiwan,” home to many of the island’s largest IT and semiconductor companies.

JUNE , 2025

**1**

Student Poster  
Registration  
**Welcome Reception**

**2**

Opening Plenary Talks  
**Chair's Cocktail**  
Parallel Scientific Sessions  
Exhibition, Posters

**3**

Parallel Scientific Sessions  
Posters, Exhibition  
**PRE Session**

**4**

Parallel Scientific Sessions  
Exhibitions, Posters  
**Session for Industry**

**5**

Parallel Scientific Sessions  
Awards Ceremony / **Entertainment Talk**  
Exhibition, Posters  
**Conference Banquet**

**6**

Plenary Talks  
Closing Remarks  
**Facility Tour**

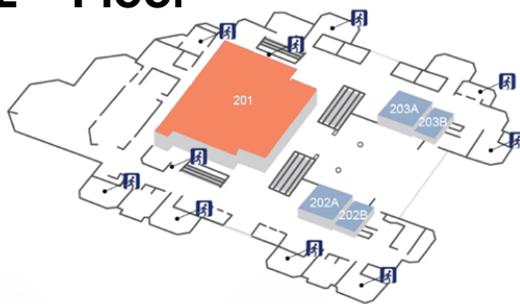
# IPAC25 Venues

**3rd Floor**



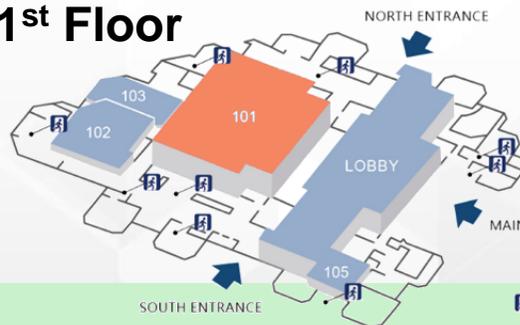
**Plenary Hall**  
Opening Ceremony

**2nd Floor**



**Room 201**  
Scientific Session  
(Parallel B)

**1st Floor**



**Room 101**  
Scientific Session  
(Parallel A)  
Closing and Award Ceremony

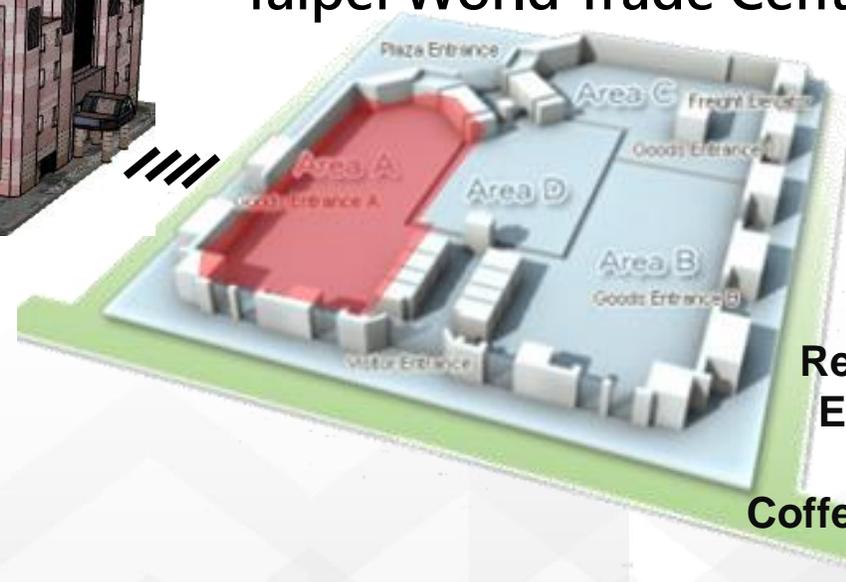
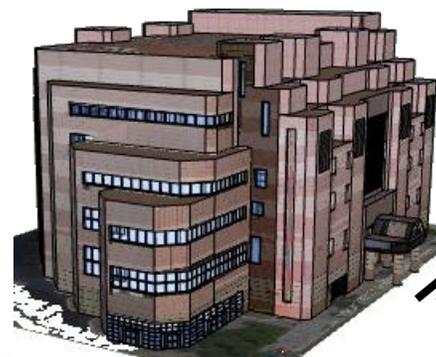
## Conference Venue

Taipei International  
Convention Centre



## Exhibition Hall

Taipei World Trade Center



Registration  
Exhibitions  
Posters  
Coffee break &  
Lunch

# Exhibition, Posters and Coffee



**Exhibition Hall — A Place for Networking: Connect with People and Wi-Fi!**  
**Come and Talk with IPAC sponsors.**



# Proceeding Office



**Opening Hours**  
**08:15-17:00**

## Exhibition Hall Taipei World Trade Center



**2F**



# Satellite Meetings

Date	Time	Meeting Name	Open/Closed	Room
Saturday, 31 May	08:30–17:00	<u>Insertion Devices for Future Light Sources Workshop (ID25)</u>	By Registration	TWTC 2F, Room A+
Sunday, 1 June	08:30–12:30			
Tuesday, 3 June	08:30–10:30	APS/PRAB Authors' Tutorial	OPEN	TICC 3F, South Lounge
	12:30–14:00	IPAC Coordination Committee Meeting and Lunch	By Invitation	TICC 1F, Room 106
	14:00–16:00	ACFA Meeting	By Invitation	TICC 1F, Room 106
	17:50–20:30	"Meet the APS/PRAB Editors" Reception	OPEN	TICC 1F
		Productive Research Environments Reception	OPEN	TICC 1F, Room 102
	18:00–20:00	IPAC'26 Exhibitor Reception	By Invitation	TICC 4F, VIP Room
Wednesday, 4 June	12:30–14:00	JACoW Stakeholders Meeting	By Invitation	TWTC 2F, Room A+
	18:00–20:30	Electron Ion Collider (EIC) Accelerator Collaboration	OPEN	TICC 1F, Room 102
	18:00–20:30	IPAC25 Organizing Committee Dinner	By Invitation	Grand Hyatt Hotel, 1F
Friday, 6 June	13:30–17:00	IPAC'26 Scientific Programming Committee	By Invitation	TWTC 2F, Room A+



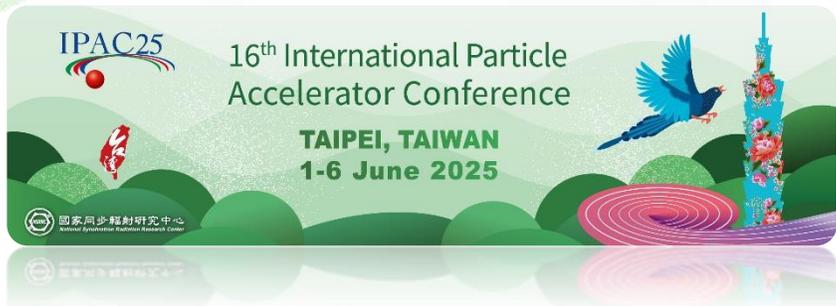
# Social Programs

Activity	Date	Time	Location	Remarks
JAcOW Team Dinner ID25 Dinner	Saturday, 31 May	18:00-20:00	UMAMI de Lebledor (金色三麥)	Dinner (By Invitation)
Welcome Reception	Sunday, 1 June	18:00-20:30	1F, TICC Lobby (國際會議中心)	Reception
Chair's Cocktail	Monday, 2 June	18:50-21:00	1F, ILLUME Taipei (茹曦飯店)	Dinner (By Invitation)
Joint PRE-PRAB Session	Tuesday, 3 June	17:50- 18:00	1F, TICC (國際會議中心)	Reception with light snacks
2 <sup>nd</sup> Organizing Committee Meeting	Wednesday, 4 June	18:20-21:00	1F, Grand Hyatt Taipei (台北君悅酒店)	Dinner (By Invitation)
Conference Banquet	Thursday, 5 June	18:45-20:40	HOTEL GRAND HILAI (漢來大飯店)	Banquet



# Information of IPAC'25

## Website



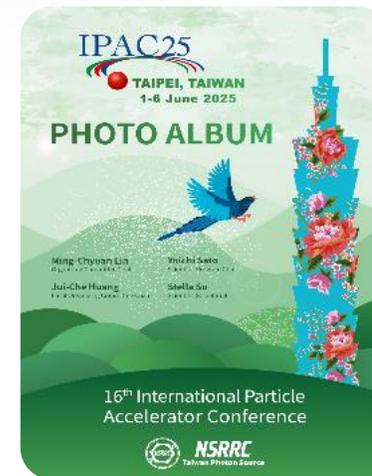
## APP



## E-book



## Photo-book





# IPAC'25 Committees and Key Dates

## 16<sup>th</sup> International Particle Accelerator Conference



### TAIPEI, TAIWAN 1-6 June 2025

Taipei International Convention Center  
Taipei World Trade Center

#### Organizing Committee

Ming-Chyuan Lin, Chair, NSRRRC

Wei-Bai, SLAC	Tsu, Hsin, RIKEN/SPring 8	Foster-Mentosh, STFC
Chui-Tsunwei, ANSTO	Jui-Che Huang, NSRRRC	Fai, Du-Jye, IAC Daejeon
Enrico Chiarenza, LE Sapienza	Hiroshi Inada, RIKEN/SPring 8	Toshiyuki Furukawa, SLRI
Nilsima Taweeak, CERN	Oliver Sander, DESY	Yoshi Sato, KEK/PARC
Richard Dorn, ANSTO	Eun-Gook Kim, Korea Univ.	Thomas Schler, BNL
Muhammad Farooq, FISS	Prakash Srivastava, SLRI	Saikat Ghosh, IISTECC-DLR
Jie-Guo, IHEP	Toshiko Kosugi, KEK	Rego de Torres, CERN/CH
Tai-Che, FJANR	Yun-Kwan, RIBF/ST	Adrian Wroblewski, SORbonne
Compton Usbeck, LLNL	John Luchini, LLNL	Jie Wei, HHLBMG
Flavia Clelia, INFN/Fiammè	Zhang-Jin, NSRRRC	Yung-Wai, Tsinghua
Ryoichi Yamaguchi, IAS	Jordi Valls, CELLS	Zhen-Tong, ZJNR

#### Scientific Program Committee

Yoichi Sato, Chair, KEK/J-PARC

Chui-Tsunwei, ANSTO	Hiroshi Inada, RIKEN/SPring 8
Enrico Chiarenza, LE Sapienza	John Luchini, LLNL
Nilsima Taweeak, CERN	Zong-Hall, NSRRRC
Jie-Guo, IHEP	Prakash Srivastava, SLRI
Tai-Che, FJANR	Soung-Hwan Shin, POSTECH-PAL
Compton Usbeck, LLNL	Yoshihiro Shimizu, KEK
Flavia Clelia, INFN/Fiammè	Jie Wei, HHLBMG
Ryoichi Yamaguchi, IAS	Hong-Wei, Tsinghua

#### Local Organizing Committee

Jui-Che Huang, Chair, NSRRRC

Stella Su, Scientific Secretariate, NSRRRC

Yen-Chia, IAS	Ching-Lang, Dalian	Feng-Shun, Chongqing	Tai-Hwa, NCU	Hsiao-Hsin, Tsinghua
Chia-Pei, CHU	Shan-Chuan, CHU	Fu-Hsin, CHU	Yeh-Ming, IAS	Lin-Kun, Beijing
Wei-Chia, SLAC	Yung-Son, CHU	Ting-Yi, CHU	Yeh-Ki, IAS	Yong-Sheng, Wang
Wei-Chia, SLAC	Yung-Son, CHU	Nan-Sheng, IAS	Wei-Chuan, IAS	Chuan-Ming, IAS
SPIN-2016	Prig-Uta, CHU	Jui-Chyuan, IAS	Yau-Bin, Tsinghua	Chih-Kang, Tsinghua



Registrations and Abstract Submissions  
From October 2024



ipac25.org

## 16<sup>th</sup> International Particle Accelerator Conference



### TAIPEI, TAIWAN 1-6 June 2025

Taipei International Convention Center  
Taipei World Trade Center

#### KEY DATES

##### 2024

- 20 May** Sponsorship & Booth Reservations Open
- 26 August** ACFA/IPAC'25 Accelerator Prizes Nominations Open
- 14 October** Abstract Submissions Open / Student Grant Applications Open
- 15 October** Early Registration Opens
- 30 November** ACFA/IPAC'25 Accelerator Prizes Nominations Close
- 10 December** Abstract Submissions Close / Student Grant Applications Close

##### 2025

- 28 February** Early Registration Closes
- 12 March** Paper Submissions & Light-Peer-Review Submissions Open
- 07 April** Light-Peer-Review Submissions Close
- 20 May** Sponsorship & Booth Reservations Close
- 28 May** Paper Submissions Close

#### ORGANIZING COMMITTEES

Ming-Chyuan Lin (NSRRRC) Organizing Committee Chair

Yoichi Sato (KEK/J-PARC) Scientific Program Chair

Jui-Che Huang (NSRRRC) Local Organizing Committee Chair

Stella Su (NSRRRC) Scientific Secretariate



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## OC Chair

Ming-Chyuan Lin (NSRRC)



## SPC Chair

Yoichi Sato (KEK/J-PARC)



## LOC Chair

Jui-Che Huang (NSRRC)



## Scientific Secretariat

Stella Su (NSRRC)

**Strategy for organizing IPAC'25 has proven highly effective.**

With four dedicated teams holding regular monthly meetings, we ensure steady weekly progress.



### Team A



- Venue Arrangements
- P.C.O. Meetings
- Sponsorship
- Finance
- Conference Hotel
- Registration
- Entertain. Talk

### Team B



- JACoW Team  
(~ 1300 papers processed)
- Oral Presentation (86 talks)
- Proceedings Office – IT Team
- Related Software Setup
- Conference Website
- Regular Announcement

### Team C



- Light-Peer-Review (Max. 120)
- Student Posters & Grants (Max. 80)
- ACFA / IPAC25 Awards
- Posters (Max. 1300)
- Facility Tours
- Conference APP

### Team D

SPC Chair : Dr. Sato, KEK

- Scientific Program
- Industry Session
- Productive Research Environment Session
- SPC1/2/3 Events

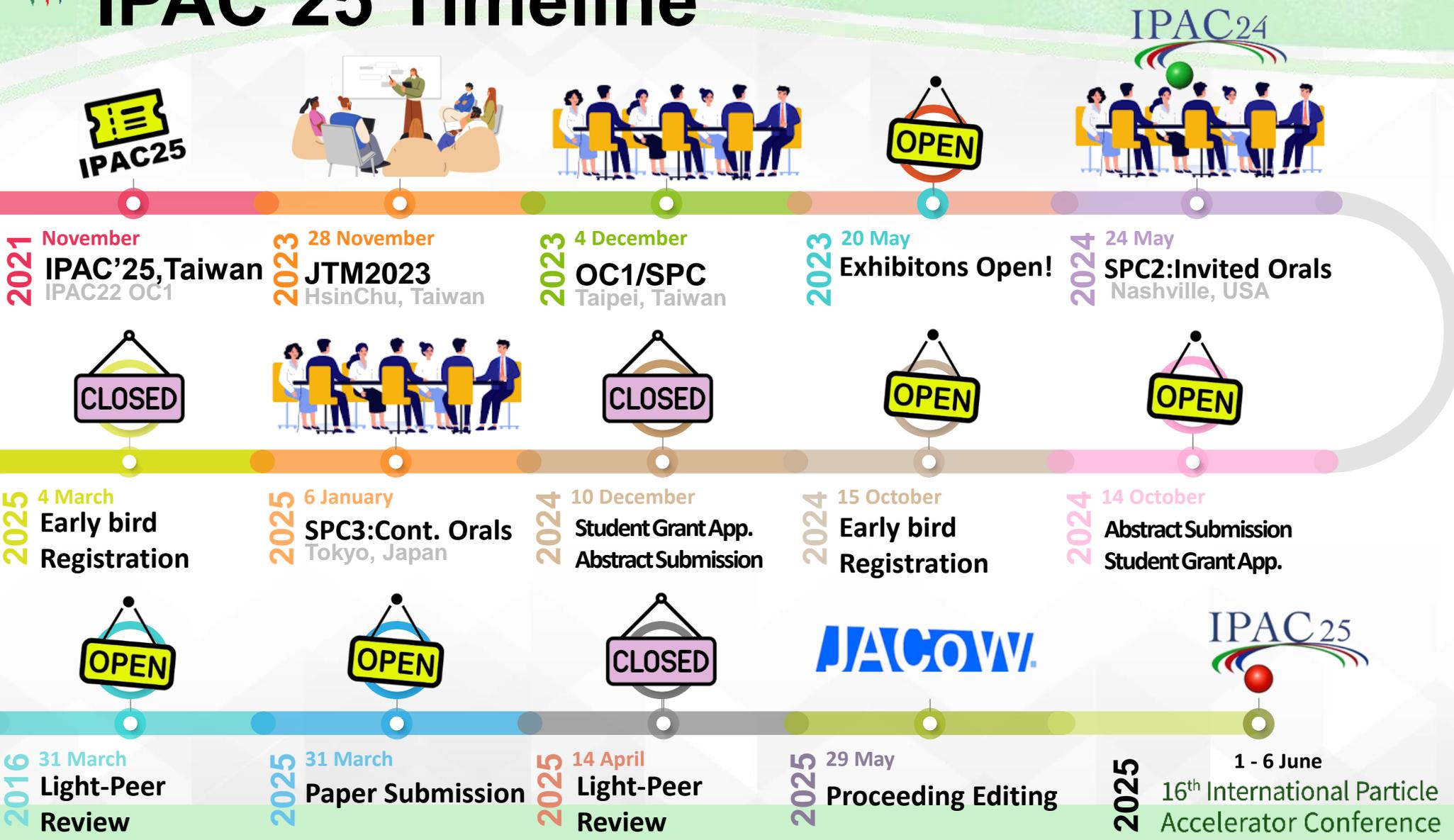




**IPAC'25 LOC Team**



# IPAC'25 Timeline



**2021** November  
**IPAC'25, Taiwan**  
 IPAC22 OC1



**2023** 28 November  
**JTM2023**  
 HsinChu, Taiwan



**2023** 4 December  
**OC1/SPC**  
 Taipei, Taiwan



**2023** 20 May  
**Exhibitions Open!**



**2024** 24 May  
**SPC2:Invited Orals**  
 Nashville, USA



**2025** 4 March  
**Early bird Registration**

**2025** 6 January  
**SPC3:Cont. Orals**  
 Tokyo, Japan



**2024** 10 December  
**Student Grant App. Abstract Submission**



**2024** 15 October  
**Early bird Registration**



**2024** 14 October  
**Abstract Submission Student Grant App.**



**2016** 31 March  
**Light-Peer Review**



**2025** 31 March  
**Paper Submission**



**2025** 14 April  
**Light-Peer Review**



**2025** 29 May  
**Proceeding Editing**



**2025** 1 - 6 June  
**16<sup>th</sup> International Particle Accelerator Conference**



# Abstract Submission



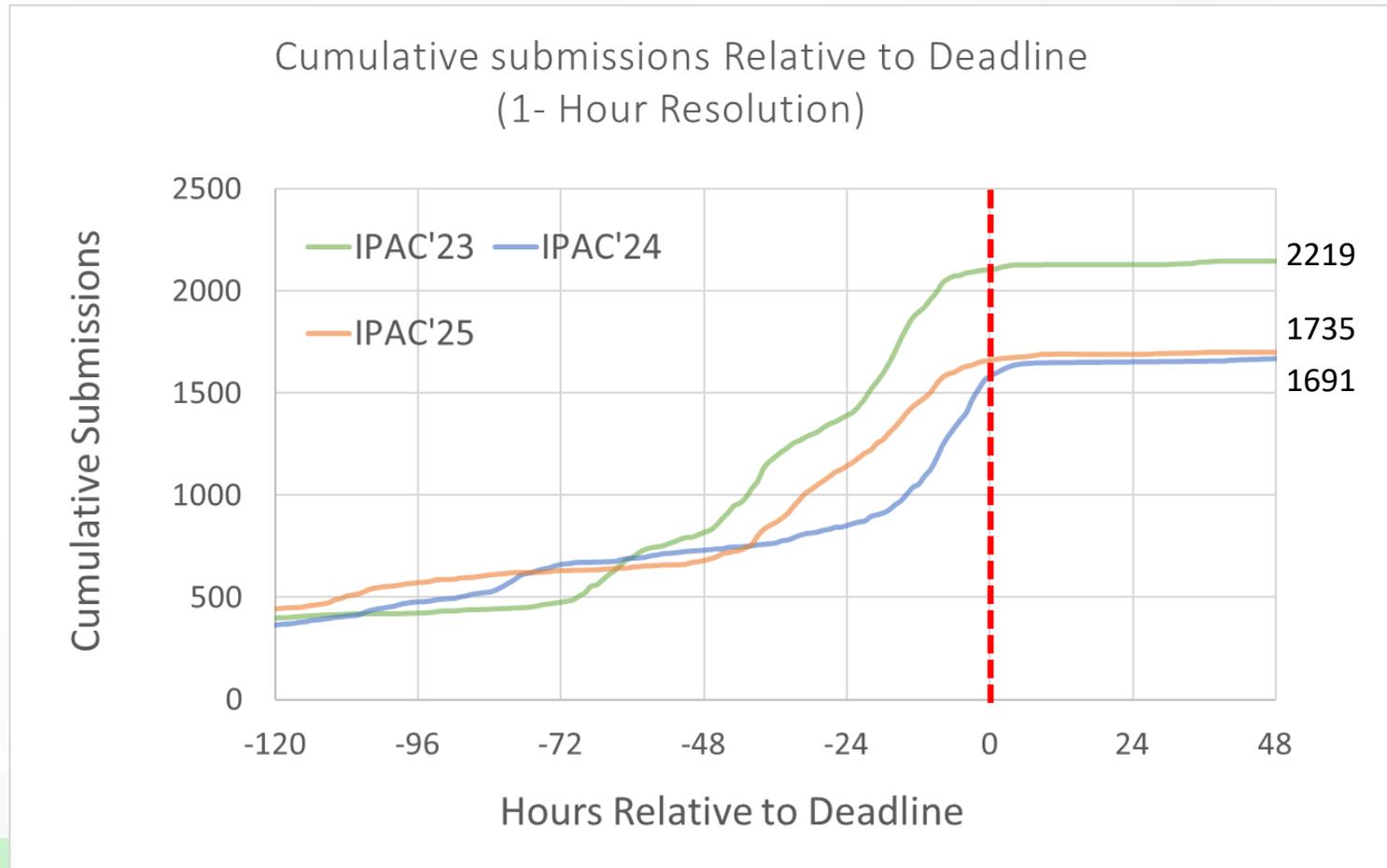
	IPAC'25	IPAC'24	IPAC'23
Region	Asia	Americans	Europe
Total abstracts submitted*	1735*	1691	2219
Abstracts withdrawn	512	366	477
Withdrawal rate	29.5%	21.6%	21.5%
Contributions	1223	1325	1742
Papers edited by the editorial team	871	~1050	~1380

\* including a few submitted after the deadline

# Submission of Abstracts

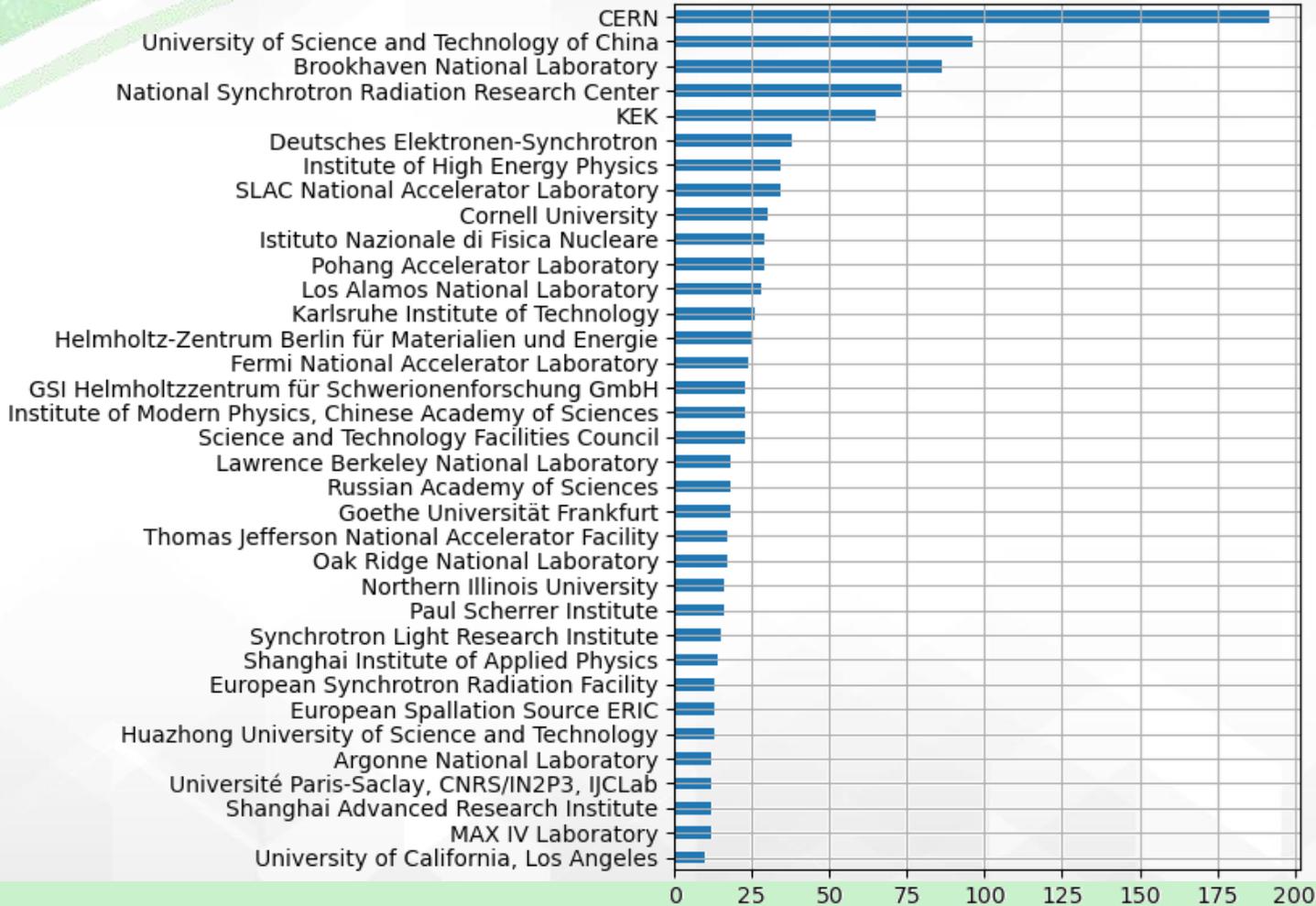


The plots of the cumulative submissions without taking withdrawal into account suggests that people submit by the deadline as usual.

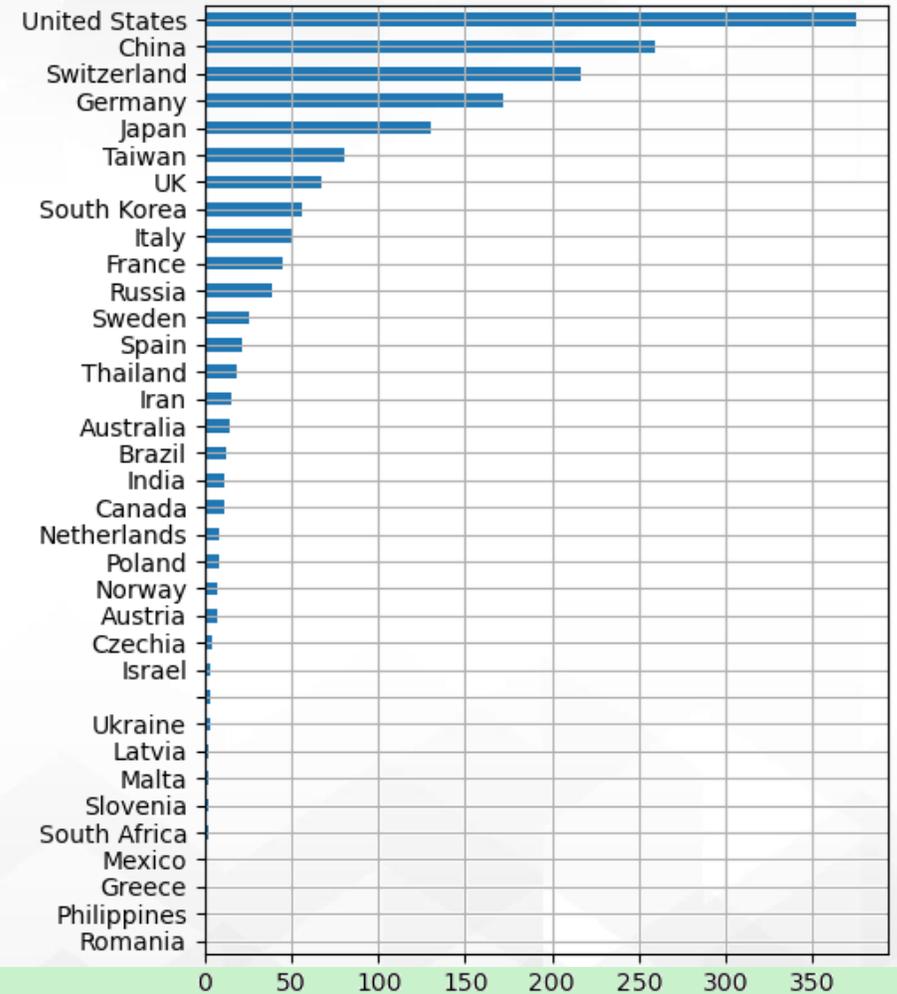




Abstracts from all regions per affiliation



Abstracts from all regions per country name





- The participation of attendees from the United States and China remains highly uncertain, resulting in some last-minute cancellations and increasing the difficulty of scheduling the program.
- Due to increased information security and cybersecurity controls most institutions, meeting notifications and communications have been restricted, leading to decreased efficiency in email delivery.

## IPAC'25 Scientific Program

Time	Sun. 1 June	Monday 2 June	Tuesday 3 June	Wednesday 4 June	Thursday 5 June	Friday 6 June
		Plenary Hall, TICC Chair: Ming-Chyuan Lin	Hall 101, TICC Chair: TU1D	Hall 201, TICC Chair: TU1N	Hall 101, TICC Chair: WE1D	Hall 201, TICC Chair: WE1N
9:00   9:30		Welcome Address	Personal and machine protection for high power accelerator commissioning, operations, and power ramp up Masamichi Inagami, ITRF	Elevating Beam Quality and Stability in Linear Accelerators through High Order Mode Analysis Sanae Samsara, INFN	Experimental demonstration of particle acceleration with normal conducting accelerating structure at cryogenic temperature Hamedshah Naei, SLAC	Upgrade of KEK electron/positron injector Linear by using pulsed magnets and machine learning Tatsuya Katsura, KEK
9:30   9:50		The Operational Challenges: Achieving 500 mA High Beam Current at Taiwan Photon Source Ping-Jung Chou, NSRRC	Challenges and solutions for high-intensity beam operations in the J-PARC Linac Yong Liu, KEK	Study on the eddy current distribution in the coating layer on the ceramic chamber of a nonlinear kicker Hao-Wen Luo, NSRRC	20 years of CERN-B cavity operation at the CLS Fabrice Le Pape, CLS	Measurement techniques using the electron beam profile scanner at the Fermilab Main Injector Nadia Heydari, Fermilab
10:00   10:10		High Beam Power Operations at Heavy Ion Facilities: Technical Developments, Challenges and Resolutions Osamu Kamigaito, RIKEN Nishina Center	Status of the proton linac for boron neutron capture therapy in the IBNET project Masahiro Sato, KEK	No parametric instabilities in actual linear accelerators except the envelope instability Dong-O Jeon, IBS	High power RF testing of high-temperature superconductors Ankur Dhar, SLAC	Data-driven hydraulic compensation in the CERN SPS main magnets Anton Lu, CERN
10:10   10:30		Injection into resonance islands Henry Lovelace II, BNL	Comprehensive study of Robinson instability in active and passive higher harmonic cavities for bunch lengthening Youngmin Park, POSTECH	Further high power tests of the additive manufacturing in-type cavity Hendrik Hahnert, Goethe Universität Frankfurt	Machine learning based orbit correction in the RCS of CSNS Jianping Chen, IHEP	Machine learning based electron source Yongbin Kim, IHEP
10:30		Coffee break (30 mins) @TWTC	Coffee break (30 mins) @TWTC	Coffee break (30 mins) @TWTC	Coffee break (30 mins) @TWTC	Coffee break (30 mins) @TWTC
11:00   11:30	Student Training	Hall 101, TICC Chair: Tadashi Koseki	Hall 101, TICC Chair: TU2D	Hall 201, TICC Chair: TU2N	Hall 101, TICC Chair: WE2D	Hall 201, TICC Chair: WE2N
11:30   11:50		Review of nonlinear resonances in accelerators and storage rings; including discussion of chaos, particle diffusion and dynamic aperture Shyh-Yuan Lee, Indiana University	Record beam intensity productions of highly charged heavy ions by 45-55 GHz superconducting ECR ion sources at IMP Liangjun Sun, IMP	Design Initiatives for a 10 TeV pCM Wakefield Collider Spencer Gossner, SLAC	Assessing and increasing the sustainability of future accelerator based facilities Ben Shephard, STFC	Ultrafast visualization of an electric field under the Lorentz transformation Koichi Kan, QST
12:00   12:10		Liquid lithium charge stripping technology: achievement and lessons learned Takaji Kanemura, FRIB, Michigan State University	Experimental generation of positavolt positrons, extreme electron beams in a particle accelerator Claudio Emma, SLAC	The third long shutdown (LS3) of the CERN accelerator complex Jean Philippe Tuck, CERN	Cryogenic efficiency and sustainability aspects for particle accelerators & detectors Antonio Perini, CERN	Empowering a broad and diverse community in beam dynamics simulations with Youlie Szymon Losapicki, CERN
12:10   12:30		RF Acceleration with Short Pulses: Breaking the High-Gradient Barrier Xueying Lu, ANL	TURBO2 Optimization of the Korea-AC20 storage ring for increasing the self-momentum dynamic aperture by analyzing resonance driving terms Junho Kim, KAIST	RHC polarized proton operation in Run 24 Karl Hoch, BNL	Active 3rd harmonic RF system for ALBA Francis Perez, ALBA	A module for fast auto-differentiable simulations Ji Qiang, BNL
12:30   13:30		Lunch break (90 mins) @ TWTC	Lunch break (90 mins) @ TWTC	Lunch break (90 mins) @ TWTC	Lunch break (60 mins) @ TWTC	Lunch break (60 mins) @ TWTC
14:00   14:30		Hall 101, TICC Chair: MO3D	Hall 201, TICC Chair: MO3N	Hall 101, TICC Chair: TU3D	Hall 201, TICC Chair: TU3N	Hall 101, TICC Chair: WE3D
14:30   15:00		ILC accelerator status Hirotshi Sakai, KEK	Overview of permanent magnet implementations for advanced light sources Ciro Calzolaia, PSI	Toward realization of free-cycle free electron lasers: basic concept and its experimental demonstration Takashi Tanaka, BREN Spring-8	Carbon ion therapy facility at Taipei Veterans General Hospital Kang-Li Lian, VGH	Cascaded hard X-ray self-seeded free-electron laser at megahertz repetition rate Shan-Li Hsu, DESY
15:00   15:20	Student Poster Session (TWTC)	Hall 101, TICC Chair: MO4D	Hall 201, TICC Chair: MO4N	Hall 101, TICC Chair: TU4D	Hall 201, TICC Chair: TU4N	Hall 101, TICC Chair: WE4D
15:20   15:40		Updated baseline design for HALIF: the hybrid, asymmetric, linear Higgs factory Carl A. Lindavik, Univ. of Oslo	Development for Various Applications of Compact ERL as a High-power CW SRF linac in KEK Masahiro Yamamoto, KEK	SPS-II Project: Status update Jean Philippe Tuck, CERN	Compact hadron sources and beams for societal applications Alessandra Lombardi, CERN	LCLS-II commissioning and operation with high-repetition-rate CW FELs Yuanxiao Ding, SLAC
15:40   16:00		Observations and efforts to reduce seed on beam loss at SuperKEKB Hitomi Ikeda, KEK	Searches for RF breakdown precursors using Cherenkov light in optical fibers Paaranget Pushkarna, Univ. of Melbourne	Evaluation method and countermeasures for the beam loss in hybrid generation light sources Toshiyuki Inokubo, KEK; Shinya Ito, KEK	Commissioning of the South African Isotope Facility Arlene Barnard, (Thembisa LABS	First beam commissioning of the NER superconducting radio-frequency photostretcher Thorsten Kump, HZB
16:00   17:30		Poster Session / Coffee (TWTC)	Poster Session / Coffee (TWTC)	Poster Session / Coffee (TWTC)	Poster Session / Coffee (TWTC)	Poster Session / Coffee (TWTC)
18:00   18:10	Welcome Reception (TICC 1F)					
18:45   20:00			Productive Research Environment 17:50-20:40			Conference Banquet 18:45-20:40 (Grand HiLai Taipei)
20:40						Closing Remarks (12:30 - 13:30)

- MC1 Colliders and Related Accelerators
- MC2 Photon Sources and Electron Accelerators
- MC3 Novel Particle Sources and Acceleration Techniques
- MC4 Hadron Accelerators
- MC5 Beam Dynamics and EM Fields
- MC6 Beam Instrumentation and Controls, Feedback and Operational Aspects
- MC7 Accelerator Technology and Sustainability
- MC8 Applications of Accelerators, and Engagement for Industry and Society



# IPAC'25 Scientific Program

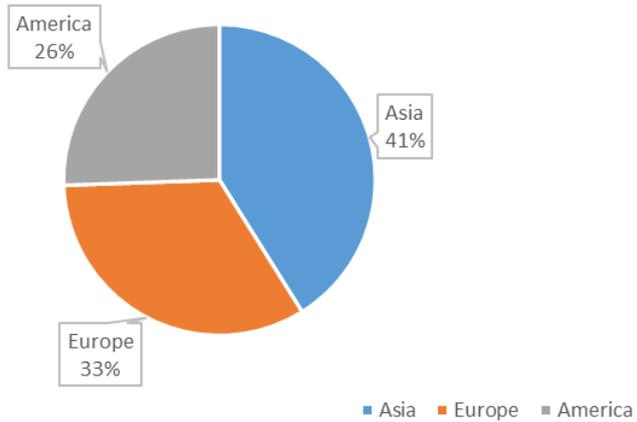
Time	Sun. 1 June	Monday 2 June	Tuesday 3 June	Wednesday 4 June	Thursday 5 June	Friday 6 June			
		<p>☉ Plenary Hall, TICC Chair: Ming-Chyuan Lin</p>	<p>☉ 101, TICC Chair: Hiroshi Imao</p>	<p>☉ 201, TICC Chair: Seunghwan Shin</p>	<p>☉ 101, TICC Chair: Thapakorn Pulamong</p>	<p>☉ 201, TICC Chair: Enrica Chiadroni</p>	<p>☉ 201, TICC Chair: Mohammad Eshraqi</p>	<p>☉ 101, TICC Chair: Rogelio Tomas</p>	
9:00		Welcome Address	Personnel and machine protection for FRIB commissioning, operations, and power ramp up Masanori Ikegami, FRIB	Elevating beam quality and stability in linear accelerators through high order mode analysis Sanae Samsam, INFN	Experimental demonstration of particle acceleration with normal conducting accelerating structure at cryogenic temperature Sami Tantawi, ASU	Upgrade of KEK electron/positron injector linac by using pulse magnets and machine learning Takuya Natsui, KEK	Guiding of charged particle beams in curved plasma-discharge capillaries Riccardo Pompili, INFN	Review of beam based correction and optimisation for accelerators Xiaobiao Huang, SLAC	Neutron target for high-intensity operation at J-PARC MLF Katsuhiko Haga, JAEA
9:30		The operational challenges: achieving 500 mA high beam current at Taiwan Photon Source Ping-Jung Chou, NSRRC	Progress in linac beam commissioning for high-intensity operations for J-PARC power upgrades Yong Liu, KEK	Study on the eddy current distribution in the coating layer on the ceramic chamber of a nonlinear kicker Hao-Wen Luo, NSRRC	20 years of CESR-B cavity operation at the CLS Frédéric Le Pimpec, CLS	Measurement techniques using the electron beam profile scanner at the Fermilab Main Injector Matilda Wranik, Illinois Institute of Technology	Progress on experimental demonstration of high-power generation from 0.4 THz corrugated structure MinKyoo Seo, Korea University	Assessing the origin of the LHC beam halo Pascal Hermes, CERN	Review of impedance effects for accelerators Takeshi Toyama, KEK
9:50			Status of the proton linac for boron neutron capture therapy in the IBNCT project Masaharu Sato, KEK	No parametric instabilities in actual linear accelerators except the envelope instability Dong-Q Jeon, IBS	High power RF testing of high-temperature superconductors Ankur Dhar, SLAC	Data-driven hysteresis compensation in the CERN SPS main magnets Anton Lu, CERN	First measurements of electron acceleration with a plasma density step at AWAKE Fern Pannell, UCL	Coherent stability and dynamic aperture with strong space charge for the FAIR SIS100 synchrotron Adrian Oefinger, John Adams Institute	
10:00		High beam power operations at heavy ion facilities: Technical developments, challenges and resolutions Osamu Kamigaito, RIKEN Nishina Center	Injection into Resonance Islands Henry Lovelace III, BNL	Comprehensive study of Robinson instability in active and passive higher harmonic cavities for bunch lengthening Youngmin Park, POSTECH	Further high power tests of the additive manufacturing IH-type cavity Hendrik Hähnel, Goethe University Frankfurt	Supersonic gas curtain-based in-vivo transverse beam profile monitoring for medical accelerators Narender Kumar, Cockcroft Institute	Development of cold atom electron source in KEK Yosuke Honda, KEK	Dynamic dipole kick due to a rippling sextupole Boris Podobedov, BNL	Review of linear and nonlinear optics measurements in the CERN LHC Ewen Hamish Maclean, CERN
10:30		Coffee Break (30 mins) ☉ TWTC	Coffee Break (30 mins) ☉ TWTC	Coffee Break (30 mins) ☉ TWTC	Coffee Break (30 mins) ☉ TWTC	Coffee Break (30 mins) ☉ TWTC	Coffee Break (30 mins) ☉ TWTC	Coffee Break (30 mins) ☉ TWTC	Coffee Break (30 mins) ☉ TWTC
	Student Training ☉ TWTC 2F Room #5	☉ 101, TICC Chair: Tadashi Koseki	☉ 101, TICC Chair: Hong-Wei Zhao	☉ 201, TICC Chair: Jie Wei	☉ 101, TICC Chair: Peter McIntosh	☉ 201, TICC Chair: Nicolas Delerue	☉ 101, TICC Chair: Eric Prebys	☉ 201, TICC Chair: Prapong Klysubun	☉ 101, TICC Chair: Yoichi Sato
11:00		Review of nonlinear resonances in accelerators and storage rings; including a discussion of chaos, particle diffusion and dynamic aperture Shyh-Yuan Lee, Indiana University	Record beam intensity productions of highly charged heavy ions by 28-45 GHz superconducting ECR ion sources at IMP Liangting Sun, IMP	Electron-Ion Collider status Sergei Nagaitsev, BNL	Assessing and increasing the sustainability of future accelerator based facilities Ben Shepherd, STFC	Ultrafast visualization of quasi-three-dimensional electric field of relativistic electron beam Koichi Kan, QST	Reinforcement learning in particle accelerators Andrea Santamaría Garcia, University of Liverpool / Cockcroft Institute	Deceleration of ion beams - Related challenges and opportunities Frank Herfurth, GSI	Latest achievements in femtosecond synchronization of large scale facilities Sebastian Schulz, DESY
11:30		Liquid lithium charge stripping technology: Achievement and lessons learned Takuji Kanemura, FRIB	Experimental generation of petawatt power, extreme electron beams in a particle accelerator Claudio Emma, SLAC	The third long shutdown (LS3) of the CERN accelerator complex Jean-Philippe Tock, CERN	Cryogenic efficiency and sustainability aspects for particle accelerators & detectors Antonio Perin, CERN	Empowering a broad and diverse community in beam dynamics simulations with Kusite Szymon Lopaciuk, CERN	Development of an RFSoC-based low-level RF controller for an electron linac Hiroyuki Maesaka, RIKEN Spring-8	Commissioning 1.7 MW, 1.3 GeV beam for the proton power upgrade at SNS Nicholas Evans, ORNL	BeamPE – a suborbital test of an accelerator for space applications Quinn Marksteiner, LANL
11:50			Status of the CARIE high gradient photocathode test facility at Los Alamos National Laboratory Evgenya Simakov, LANL	RHIC polarized proton operation in Run24 Kiel Hock, BNL	Active 3rd harmonic RF system for ALBA Francis Perez, ALBA	A module for fast auto-differentiable simulations Ji Qiang, LBNL	Development of non-invasive beam diagnostics by quantum optics-based detection Shukai Zhang, Jefferson Lab	FAIR commissioning - Towards first science Stephan Reimann, GSI	
12:00		RF acceleration with short pulses: Breaking the high-gradient barrier Xueying Lu, NIJ/ANL	Optimization of the Korea-4GSR storage ring for increasing the off-momentum dynamic aperture by analyzing resonance driving terms Junha Kim, PAL	Exceeding high-luminosity LHC performance targets during the 2024 Pb-Pb ion run Roderik Bruce, CERN	Integrating permanent magnets and electromagnets: a hybrid dipole magnet design Yang-Yang Hsu, NSRRC	Off-resonance scheme for highly coupled lattice design in the diffraction-limited light sources Yihao Gong, SSRF	Lunch break (80 mins) ☉ TWTC		Highlights from future circular collider feasibility study and path to construction Frank Zimmermann, CERN
12:30		Lunch break (90 mins) ☉ TWTC	Lunch break (90 mins) ☉ TWTC	Lunch break (90 mins) ☉ TWTC	Lunch break (90 mins) ☉ TWTC	Lunch break (90 mins) ☉ TWTC	Lunch break (90 mins) ☉ TWTC		
13:30							Lunch break (90 mins) ☉ TWTC		Closing Remarks (12:30 - 13:30)
		☉ 101, TICC Chair: Ryoichi Hajima	☉ 201, TICC Chair: Zong-Kai Liu	☉ 101, TICC Chair: Toru Hara	☉ 201, TICC Chair: Jordi Marcos Ruzafa	☉ 101, TICC Chair: Yoichi Sato	☉ 201, TICC Chair: Adriana Wawrzyniak	☉ 101, TICC Chair: In-Soo Ko	
14:00		ILC accelerator status Hiroshi Sakai, KEK	Overview of permanent magnet implementations for advanced light sources Ciro Calzolari, PSI	Toward realization of few-cycle free electron lasers: basic concept and its experimental demonstration Takashi Tanaka, RIKEN Spring-8	Carbon ion therapy facility at Taipei Veterans General Hospital Keng-Li Lan, TVGH	Cascaded hard X-ray self-seeded free-electron laser at megahertz repetition rate Shan Liu, DESY	Award Session (13:30 -14:50)		Facility Tour (13:30 - ) Taiwan Photon Source, National Synchrotron Radiation Research Center or Heavy Ion Therapy Center, Taipei Veterans General Hospital
14:30		Status of the baseline design for a 10 TeV muon collider Daniel Schulte, CERN	Development for various applications at compact ERL as a high-power CW SRF linac in KEK Masahiro Yamamoto, KEK	SPS-II project: Status update Pornpip Sudmuang, SLRI	Compact hadron sources and societal applications Alessandra Lombardi, CERN	LCLS-II commissioning and partnership with NSRRC in Taiwan's first heavy ion therapy project Ching-Sheng Liu, Kaohsiung VGH	Best Student Poster Award (14:50-15:00)		Penalty talk
	Student Poster Session ☉ TWTC	☉ 101, TICC Chair: Ryoichi Hajima	☉ 201, TICC Chair: Zong-Kai Liu	☉ 101, TICC Chair: Toru Hara	☉ 201, TICC Chair: Jordi Marcos Ruzafa	☉ 101, TICC Chair: Tadashi Koseki	☉ 201, TICC Chair: Adriana Wawrzyniak	☉ 101, TICC Chair: Jui-Che Huang	MC1 Colliders and Related Accelerators
15:00		Updated baseline design for HALHF: the hybrid, asymmetric, linear Higgs factory Eric Adli, Univ. of Oslo	Nb3Sn cavity development based on vapor deposition method at KEK Hayato Ito, KEK	Operational status and future project of the KEK Photon Factory Takashi Ohina, KEK	Communicating environmental sustainability guidelines for large accelerator facilities Hannah Wakeing, John Adams Institute	Design initiatives for a 10 TeV pCM wakefield collider Stewart Boogert, Cockcroft Institute	SLS 2.0 storage ring commissioning Michael Böge, PSI	Entertainment Session (15:00 -15:30) Why Did My Ancestors Leave Taiwan? Futuro C.L. Tsai	MC2 Photon Sources and Electron Accelerators
15:20		Future e+e- colliders using recycling energy recovery linacs Vladimir Litvinenko, Stony Brook University	Recent developments in the accelerator equipment automation field Konstantinos Papastergiou, CERN	Commissioning of the Advanced Photon Source Upgrade – the first swap-out injection-based synchrotron light source Vadim Sajaev, ANL	Engineering magnetic carbon nanotubes via swift heavy ion irradiation for spintronics and quantum technologies: XAS and RAMAN study Prival Singh, Panjab University	Enhanced proton and neutron production using the ultra-short (24 fs) and high-power (2 PW) Apollon laser facility Julien Fuchs, CNRS	First beam commissioning of the HZB superconducting radio-frequency photoelectron gun Thorsten Kamps, HZB	Poster Session / Coffee (15:30-17:30) ☉ TWTC	MC3 Novel Particle Sources and Acceleration Techniques
15:30		Observations and efforts to reduce sudden beam loss at SuperKEKB Hitomi Ikeda, KEK	Searches for RF breakdown precursors using cherenkov light in optical fibers Paarangat Pushkarna, Univ. of Melbourne	Evaluation method and countermeasures for the beam loss in fourth-generation light sources Toshihiko Hiraiwa, RIKEN Spring-8	Commissioning of the South African Kotope Facility Hugo Barnard, IThemba LABS	Experimental demonstration of transient-beam-loading compensation using new digital LRF system at the Photon Factory storage ring Daichi Naito, KEK			MC4 Hardron Accelerators
16:00		Poster Session / Coffee ☉ TWTC	Poster Session / Coffee ☉ TWTC	Poster Session / Coffee ☉ TWTC	Poster Session / Coffee ☉ TWTC	Poster Session / Coffee ☉ TWTC			MC5 Beam Dynamics and EM Fields
18:00	Welcome Reception (18:00-20:00) ☉ TICC 1F		Productive Research Environment (17:50-20:40) ☉ 102, TICC				Conference Banquet (18:45-20:40) ☉ Grand HILai Taipei		MC6 Beam Instrumentation and Controls, Feedback and Operational Aspects
									MC7 Accelerator Technology and Sustainability
									MC8 Applications of Accelerators, and Engagement for Industry and Society

# Oral Presentations

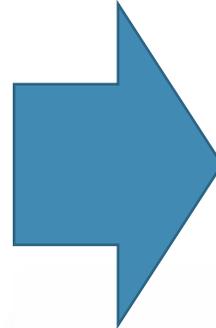
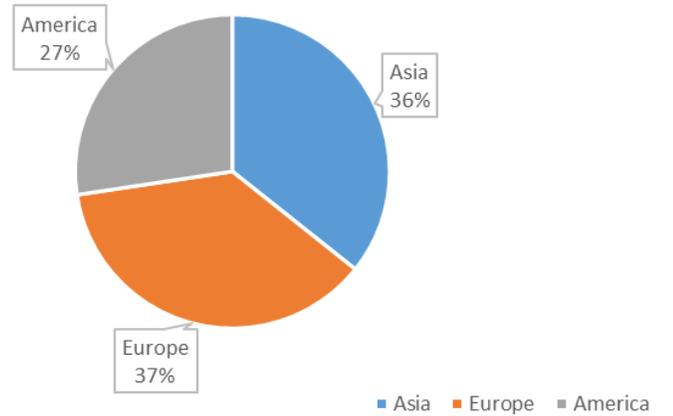
Contributed and Invited Orals (90 Talks)

Contributed and Invited Orals (84 Talks)

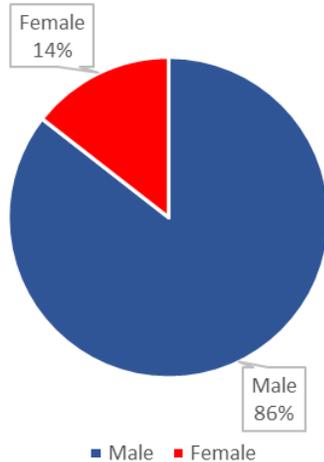
Overall (Invited+Contributed)



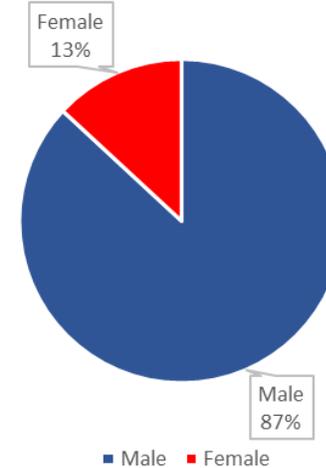
Overall (Invited+Contributed)



Gender Distribution



Gender Distribution





# IPAC'25

Taipei International Convention center & Taipei World Trade Center !

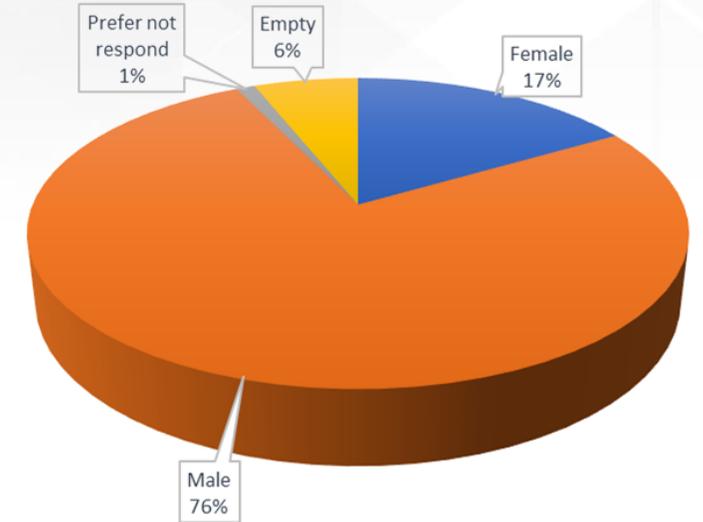


# Participant Statistics



Over 1,000 participants from 37 countries, including around 900 international and 100 domestic attendees.

REGISTERED PARTICIPANTS	1000
Granted students	79
Students- paying	91
Participants	607
LOC and JACoW	36+27
Exhibitors (included in booth fee)	129
Exhibitors extra pass	10
Accompany	19



REGISTERED PARTICIPANTS	TOTAL	1000
Female		190
Male		731
Prefer not respond		12
Empty		67



Country of affiliation	Registered	Checked-in
JAPAN	155	151
TAIWAN	147	142
GERMANY	124	119
UNITED STATES	109	98
SWITZERLAND	95	95
KOREA	63	63
UNITED KINGDOM	45	44
FRANCE	44	39
ITALY	40	39
CHINA	35	21
SWEDEN	23	18
RUSSIA	20	20
THAILAND	16	15
CANADA	15	15
SLOVENIA	11	11
SPAIN	11	11
INDIA	9	8
POLAND	7	7
AUSTRALIA	6	5
NORWAY	5	5

*The count of Taiwanese participants includes VIPs and staffs.*



Number of Participants by Country



# Industrial Participation



- **70** companies (inc. Taiwan consortium, 8 booths )
- 3 Media Partners (Cern Courier , PRAB/APS Journal, IOP)
- 4 Free-of-charge institutional exhibitors: Elettra, JUAS, IPAC'26, IPAC'27

## Sponsorship Summary

### Sponsorship Summary

#### •Sponsorship Levels

- 1 Platinum Sponsorship – *NSRRC-TPS*
- 6 Gold Sponsorships
- 3 Silver Sponsorships

#### •Additional Notes

- 3 booths unable to attend
- 12 booth-less sponsors

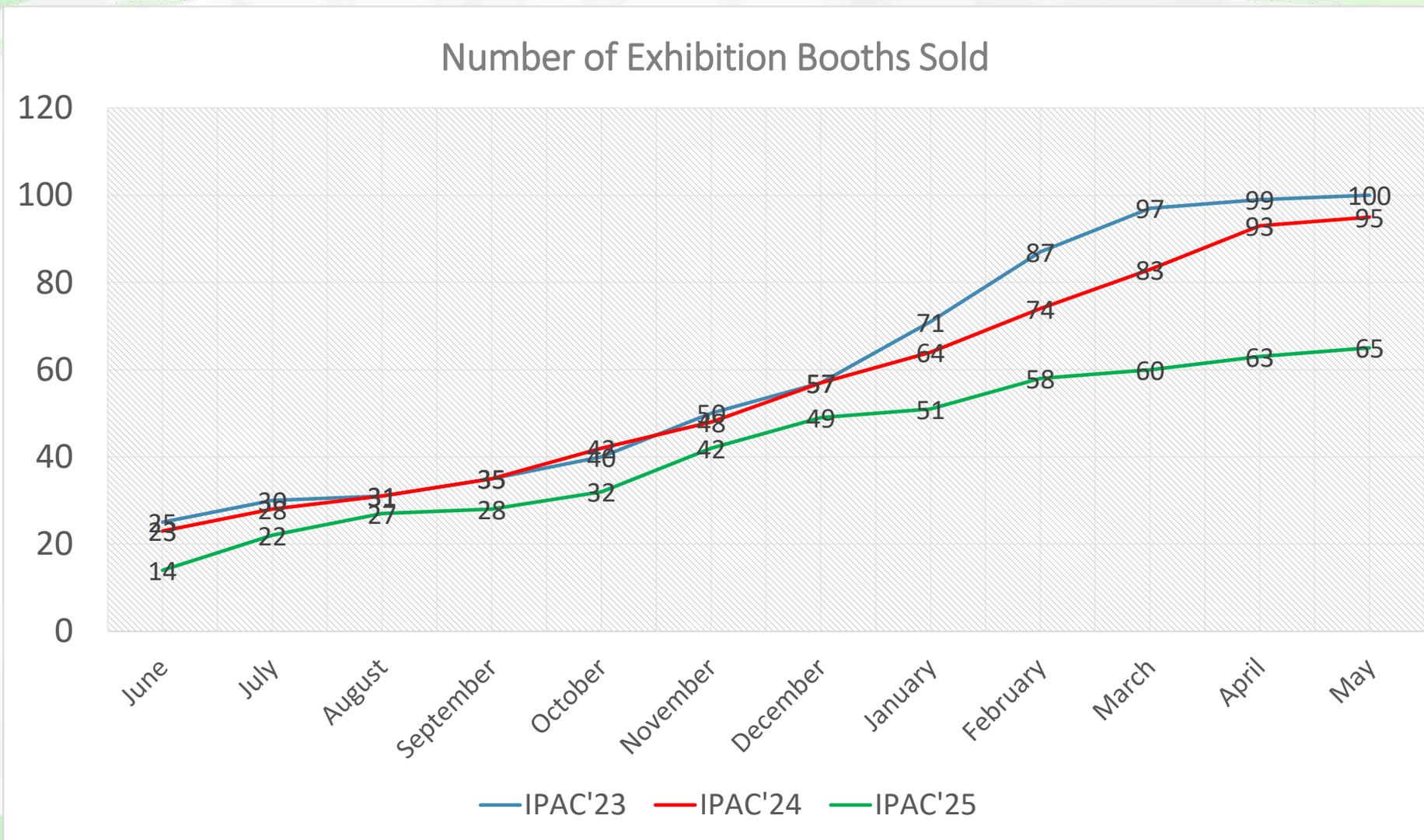
#### •Company Presentations

- 4 companies (e.g., *Cosylab, ALD Vacuum, ...*)

#### •Item Sponsorships

- Lanyards – *Dimtel / Allied Metals*
- Notepads – *Microwave Techniques LLC*
- Conference Bag Logos – *NSRRC-TPS*
- All-in-One Adapters – *Instrumentation Technologies*

# Number of Exhibition Booths sold





Taipei Veterans General Hospital Heavy Ion Cancer Therapy Center, Chroma ATE, Gong Jun Precision, Jiayang Technology, Tai Chuen Metal, Liming Systems, Minkai Technology, and Shengxin Precision.

01

## Showcasing Taiwan's Strength and Industry Image

Showcase Taiwan's accelerator expertise and teamwork, helping industries enter emerging global markets.

02

## Embodying the MIT Spirit

Emphasize 'Made in Taiwan' as a key force in the global accelerator industry.

03

## Becoming a Exhibition Highlight

A large pavilion and gathering, easily seen, attracting attention as a conference highlight..

04

## Generating Financial Benefits to the conference

Enhance overall conference revenue through the participation of Taiwanese companies.



# IPAC25 Sponsors

AFT microwave



AMPLEON



Best Cyclotron Systems

Best Particle Therapy



Canon CANON ELECTRON TUBES & DEVICES CO., LTD.

CERN COURIER

Chroma Advancing Excellence

COSYLAB



Cryoelectra



HVP High Voltage Products, High Voltage Experts.

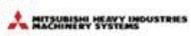
HVP High Voltage Products, High Voltage Experts. (주)에이치브이피 코리야



INSTRUMENTATION TECHNOLOGIES



Kashiyama Vacuum Solutions



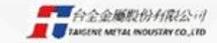
Nodica Group



physicsworld



SHENG-HSIN Precision Industrial Co., Ltd.





# Interaction with Exhibition



## Conference Gifts with Purpose - Not Luxury

IPAC'25 is not offering high-value prizes. Instead, we've chosen practical gifts that attendees can truly use.

## Sustainability - Sports Bottle

A functional gift that supports sustainability by reducing the use of paper cups during the conference.



**Sponsor Presentation** M **Poster Area**

P01 S01 P02 S07 S03 S08  
P05 S02 P06 P07 P03 P08

P09 S09 P10 P11 S10 P12  
P13 S11 P14 P15 S12 P16

P17 S13 P18 P19 P20 P21 P22 P23 S14 S15 P24  
P25 S16 P26 P27 P28 P29 P30 P31 S17 S18 P32

Main Entrance M2 Networking Lounge

Registration Information M1 Networking Lounge S  
T1 T2 T3 T4 T5 Taiwan Pavilion T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16

S19 P56 P47 P48 P49 P50 P57 S20 P58  
P59 S21 P51 P52 P53 P54 P61 S22 P62

B **Poster Area** Refreshment Counter Networking Lounge

P50 Buckley Systems  
S21 CERN Courier  
P49 D-Pace Inc.  
P56 GLVAC Industrial Technology Research Institute  
S20 IPAC'26  
S22 IPAC'27  
P59 JUAS (Joint Universities Accelerator School)  
P61 Kashiyama Industries, Ltd.  
P58 Kiswire Advanced Technology Co., Ltd. (KAT)  
P62 KYOCERA Corporation  
P51 MICROMATTER TECHNOLOGIES Inc.  
P57 Mitsubishi Heavy Industries Machinery Systems, Ltd.  
S19 PHYSICS WORLD  
P48 RI Research Instruments GmbH  
P52 SIMIC S.P.A.  
P47 TOYAMA CO., LTD.  
T1 SHENG-HSIN Precision Industrial Co., Ltd. 勝欣精密  
T2 Taigene Metal Industry Co. 台全金屬  
T3 Limo System Technology CO., LTD. 立盟系統  
T4 Chroma ATE Inc. 致茂電子  
T5 Gorgin Precision Ind. Co., Ltd. 公準精密  
T6 Highlight Tech Corp. (Htc) 日攝科技  
T7 T8 Taipei Veterans General Hospital 臺北榮總  
T9 Mini-Circuits Taiwan Ltd. 明翽科技



## EXHIBITION PASSPORT

### How to Win a Prize

Visit exhibitors' booths to collect 24 stamps  
8 stamps from "Blue Magpie"  
8 stamps from "Cherry Salmon"  
8 stamps from "Black Bear"



Exchange a stainless steel sports bottle



### Important Notes:

- 200 prizes daily. One redemption per participant.
- Exchange at registration counter:  
10:00 AM, June 3 – 2:00 PM, June 5.

# IPAC'25 – Welcoming the World to Taipei, Opening Ceremony



IPAC25  
TAIPEI, TAIWAN

The 16<sup>th</sup> International Particle Accelerator Conference

2 – 6 June 2025

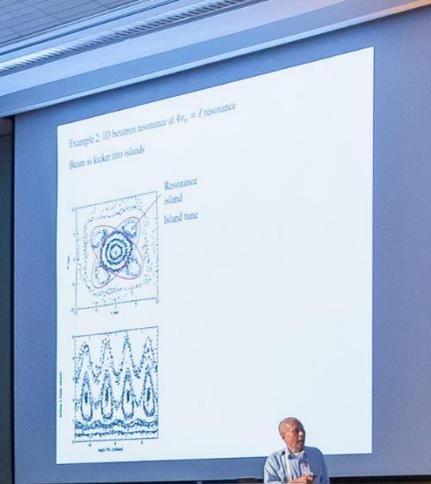
國家同步輻射研究中心  
National Synchrotron Radiation Research Center

16<sup>th</sup> International Particle Accelerator Conference  
TAIPEI, TAIWAN  
1-6 June 2025

ipac25.org

國家同步輻射研究中心

# Conference Mode



# Exhibitions



# Morning pep talk !!



# Proceeding Control Room : JACoW Team





# Conference Banquet

## 800 Guests

# Snapshot of IPAC'25



Productive Research Environment Session



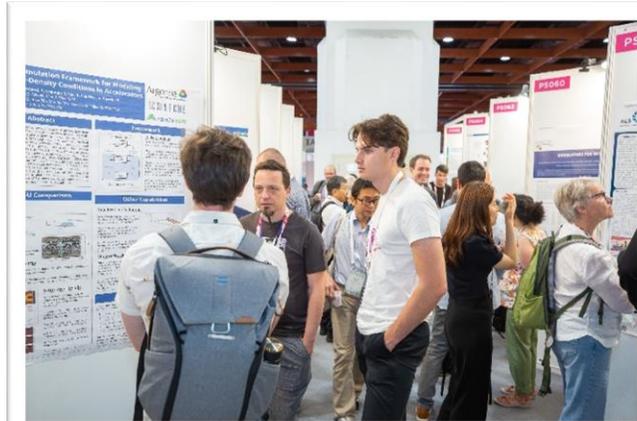
Satellite Meetings



Sponsor Presentations



Conference Banquet



Posters



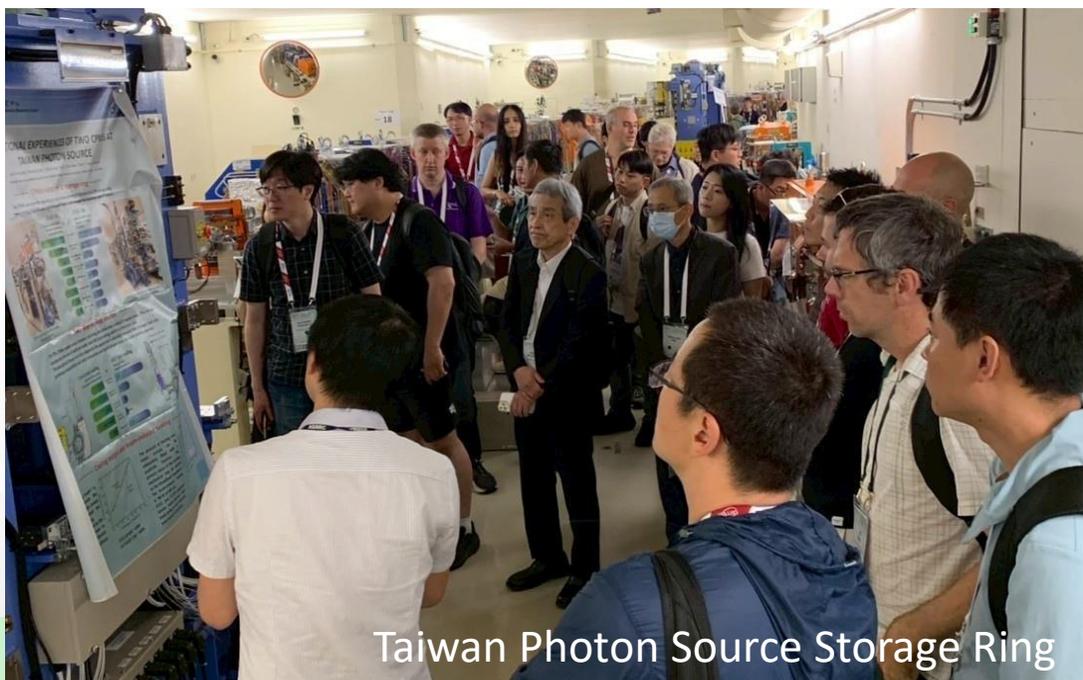
Entertainment Talk





**A half-day guided tour to discover ongoing innovations at the Taiwan Photon Source and in heavy-ion therapy applications at Taipei Veterans General Hospital. The fee of NT \$ 600 is required to ensure attendance and minimize absences.**

150 participants : visit the TPS to explore scientific and technological developments .



Taiwan Photon Source Storage Ring

100 participants : visit to HiTC explore the accelerator, treatment rooms, and clinical applications.



Heavy Ion Cancer Therapy Center

# LESSON LEARNED

## **Poster Limit Policy and Additional Charges for IPAC'25**

- Each editor can handle approximately 5 to 8 papers per day. So it is important to keep the poster presentation limit per delegate to ensure a manageable workflow and smooth review process.
- For IPAC'25, an extra charge will apply for exceeding the poster limit: Each delegate may present up to four posters. An additional fee of USD 200 will be charged for each poster beyond this limit.
- We have identified 15 registrants who are presenting more than four posters each.

## **REGISTRATION**

- The participation of attendees from some countries remains highly uncertain; we have issued more than 100 refunds.
- For on-site registration, we have 40 attendees registered on-site.

# LESSON LEARNED

## **Referee Challenges in Light Peer Review (LPR)**

- We had many referees and volunteers, but in reality, there were also many rejections to review papers.
- A few individuals misused the LPR system — for example, one presenter took on four LPRs from different authors.
- A clear policy is needed before opening the system in the future.

## **Email Delivery Issues Due to Enhanced Security Measures**

- Due to heightened information security and cybersecurity controls at many institutions, meeting notifications and communications have become increasingly restricted, resulting in reduced efficiency in email delivery.
- Emails from the IPAC Scientific Secretariat are sometimes flagged as spam and are frequently blocked by mail servers in the United States and Europe. In several cases, recipients have only discovered our emails after checking their spam folders.

## **Indico related issue**

- The major upgrade was done in March, which highly affect the poster assign and session assign.
- Highly suggest it should upgrade not during IPAC conference, many authors involved.



- **1 Strong Team Collaboration**

*Nearly 40 NSRRC colleagues worked seamlessly alongside the professional conference company, ensuring the smooth and successful execution of IPAC'25.*

- **2 Financial Challenges**

*Despite reduced attendance from major countries such as the United States and China, which brought financial uncertainty, the team's dedication enabled us to reach a break-even outcome.*

- **3 A Three-Year Commitment Realized**

*IPAC'25 marked the culmination of three years of preparation. We express our sincere appreciation to SPC Chair Yoichi Sato (KEK) and Chief Editor David Button (ANSTO) for shaping an outstanding program and ensuring timely completion of the Proceedings.*

- **4 A Good Achievement for a First-Time Host**

*In hosting a 1,000-participant international conference for the first time, our team achieved what once seemed unattainable—supported by the generous guidance of IPAC'22/23/24 organizers and Indico team.*

- **5 The Power Behind IPAC'25 (NSRRC is the biggest sponsor)**

*We extend our deepest gratitude to NSRRC for its unwavering support — in financial resources, personnel, and leadership — which made it possible for us to successfully complete IPAC'25.*



# Taiwane Elements in IPAC'25

Buffet restaurants are everywhere in Taiwan



Geen cookies (乖乖) help your machine behave.



You can have sugar anytime!



Photo's best friend: a hand-held sign!



The Kind Hearts of the Taiwanese People



All of your  
**Many Thanks**  
Strong Supports