14th International "Hiroshima" Symposium on the Development and Application of Semiconductor Tracking Detectors

HSTD 14

November 16 - 21, 2025 Academia Sinica, Taipei

International Advisory Committee

P. Allport (Univ. Birmingham, UK)

N. Cartiglia (INFN Torino, Italy)

Y. Fukazawa (Hiroshima Univ., Japan)

M. Garcia-Sciveres (LBNL, Berkeley, US)

G. Hall (Imperial Colleague, London, UK)

S. Hou (Academia Sinica, Taipei, Taiwan)

T. Ohsugi (Hiroshima Univ., Japan)

H.F.W. Sadrozinski (Univ. California, Santa Cruz, US)

A. Seiden (Univ. California, Santa Cruz, US)

T. Takahashi (Univ. Tokyo, Kashiwa, Japan)

Y. Unno (KEK, Tsukuba, Japan)

J. Wang (IHEP, Beijing, China)

TOPICS:

Detector Concepts, Simulations Pixel and Strip Sensors Avalanche-based Sensors Sensors for Calorimetry

Radiation Effects on Detectors **Radiation Tolerant Materials** Applications in Astrophysics, Biology, Medicine and Medical Equipments New Ideas and Future Applications

Key Dates:

Abstract submission: May 1 - Aug. 1 Registration: May 1 - Oct. 15

Contact: hstd14@sinica.edu.tw

https://www-hep.phys.sinica.edu.tw/~HSTD14



Local Committee

Suen Hou (Chair, AS) Ling Yao Hsi (AS) Tsui Shya Liu (AS) Stathes Paganis (NTU) Hong-Ju Shi (AS) Yi Yang (AS)















14th Hiroshima Symposium (HSTD14)

Concluding Remarks

Y. Unno, S. Hou representing IAC and LOC for all participants and the organizers

Welcome and Thank you!!

- First of all, to the participants from around the world, and to this intensive week
- The symposium would not have been successful without your contributions and participation.

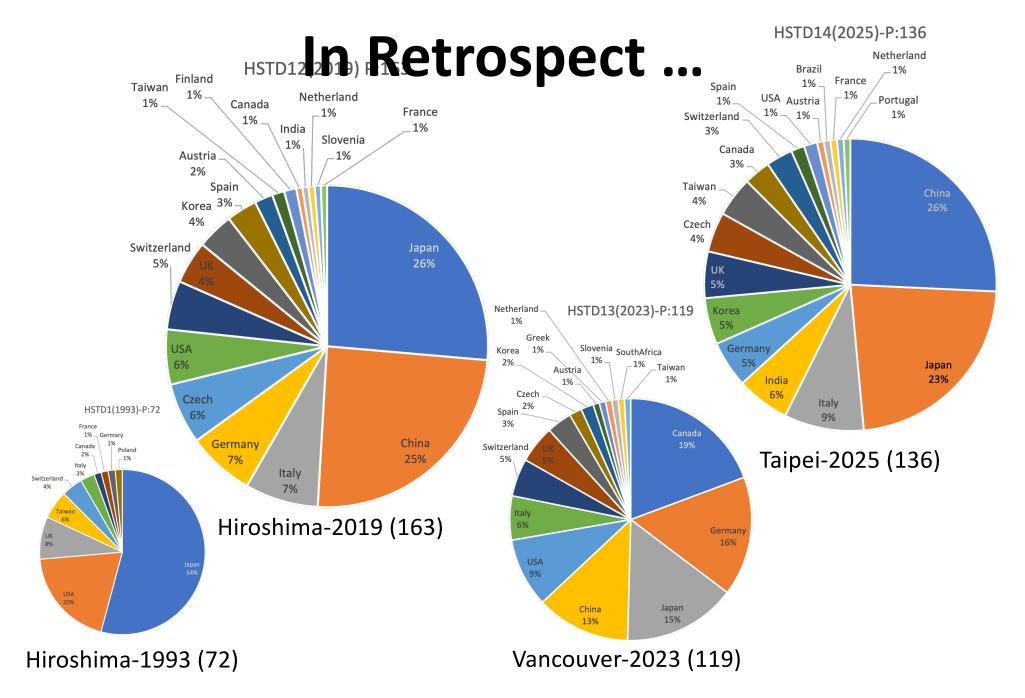


... An analysis of the participants is in the next page

Participants HSTD14

•	Total:	136
	Austria	1
	Brazil	1
	Canada	4
	China	35
	Czech	6
	France	1
	Germany	7
	India	8
	Italy	12
	Japan	31
	Korea	7
	Netherland	1
	Portugal	1
	Spain	2
	Switzerland	4
	Taiwan	6
	– UK	7
	USA	2

HSTD14(2025)-P:136 Netherland Brazil 1% France 1% _ Spain 1% USA Austria 1%_ Portugal 1% _ 1%_ 1% Switzerland 3% Canada 3% Taiwan China 4% Czech 4% UK 5% Korea 5% Germany 5% Japan 23% India Italy 9%



It is good to hold the symposia on both sides of the Pacific.

HSTD14 - Timetable

V1112

V1112						
	Nov.16 Sun	Nov.17 Mon	Nov.18 Tue	Nov.19 Wed	Nov.20 Thu	Nov. 21 Fri
9:00		Mon-1 Opening 0.Det.Concept	Tue-1 1.Pixel.Strip	9:00 Wed-1 2.Aval.Sensor	Thu-1 7.App.Astro	Fri-1 8.New ideas
10:20		Coffee	Coffee	40' POSTER Q&A	Coffee	Coffee
10:50		Mon-2 0.Det.Concept	Tue-2 1.Pixel.Strip 5.Rad.Effect	11:00 Wed-2 2.Aval.Sensor	Thu-2 8.New ideas	Fri-2 8.New ideas Closing
12:10		lunch	lunch	12:20 lunch	lunch	lunch
14:00	All POSTER Put-up open 11/16 Presentation 11/16-11/21	Mon-3 0.Det.Concept 1.Pixel.Strip	Tue-3 5.Rad.Effect	14:10 Wed-3 2.Aval.Sensor		
15:20		Tea	Tea	40' POSTER Q&A	Excursion	Fare ware
15:50		Mon-4 1.Pixel.Strip	Tue-4 5.Rad.Effect 6.Rad.material	16:00 Wed-3 2.Aval.Sensor 7.App.Med		Short tours
17:30	Welcome	Reception	Night market / Taipei101		Dinner	



Opening by Director, YuanHann Chang



Participants in the auditorium

Statistics of HSTD14 Scientific Program

Diverse subjects:

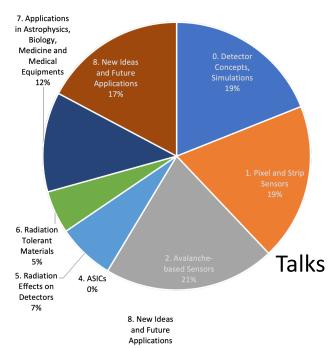
- 58 Talks
- 56 Posters

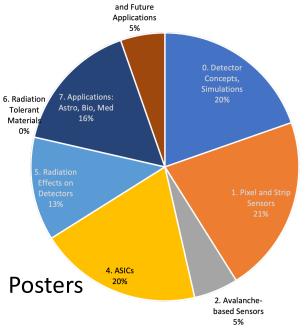
Talks:

\checkmark	Detector Concepts, Simulations	11
\checkmark	1. Pixel and Strip Sensors	11
\checkmark	2. Avalanche-based Sensors	12
\checkmark	5. Radiation Effects on Detectors	4
	6. Radiation Tolerant Materials	3
\checkmark	7. Applications in Astrophysics, Biology, Medicine and Medical Equipment	7
	iviedicine and iviedical Equipment	1
\checkmark	8. New Ideas and Future Applications	10

Posters:

 ✓ 0. Detector Concepts, Simulations 	11
✓ 1. Pixel and Strip Sensors	12
✓ 2. Avalanche-based Sensors	3
✓ 4. ASICs	11
✓ 5. Radiation Effects on Detectors	7
√ 7. Applications: Astro, Bio, Med	9
✓ 8. New Ideas and Future Applications	3





Many interesting, topical contributions!

- On-going experiments remain healthy after radiation damage
- Production of the components for HL-LHC is progressing
- Great to see an LGAD integrated in a real system in HGTD
- Pixels and strips remain strong
- Detector development with gain is very active
- Many applications in Astro, medical, X-ray science, etc.
- All of these efforts are complemented by the involvement of new generations, robust post-mortem analyses, studies on radiation damage, development of new materials, ...
- Good or bad, there could be concerns about the rapidly changing semiconductor industry

Social Program

- Pleasant parties! (Welcome (Sunday evening), Reception (Monday evening), ...)
- Coffee/Tea breaks, Poster presentations
- Excursion (Sky lantern in Shihfen and the nostalgic town of Jiufen)
- Conference Dinner (at Keelung Harbor)

- ... After all, we have successfully brought the "Symposium" to life
 - "Symposium a drinking party or convivial discussion, especially as held in ancient Greece after a banquet – New Oxford Dictionary"

New Taipei crowd:136 Friends



In the reception, posters, excursion, and the Dinner

And, if you have a chance (*),

- it's worth to visit the National Palace Museum, e.g.
- They have two master pieces: the Jadeite Cabbage and the Meatshaped Stone, of course, among other treasures,
 - dedicated craftsmanship, similar to our semiconductor detectors





(*) if not, you should not regret because, during Sep-Dec 2025, the cabbage is in Prague

Giving Credits

International Advisory Com.:

- P. Allport (Birmingham, UK)
- N. Cartiglia (INFN Torino, Italy)
- Y. Fukazawa (Hiroshima, Japan)
- M. Garcia-Sciveres (LBNL, US)
- G. Hall (Imperial C., UK)
- S. Hou (Academia Sinica)
- T. Ohsugi (Hiroshima, Japan)
- H.F-W. Sadrozinski (SCIPP, US)
- A. Seiden (SCIPP, US)
- T. Takahashi (U. Tokyo, Japan)
- Y. Unno (KEK, Japan)
- J. Wang (IHEP, Beijing, China)

Sponsors and Supporters:

- Academia Sinica
- Nat'l Sci. and Tech. Council
- Shui-Ching Lee foundation

Local Organizers:

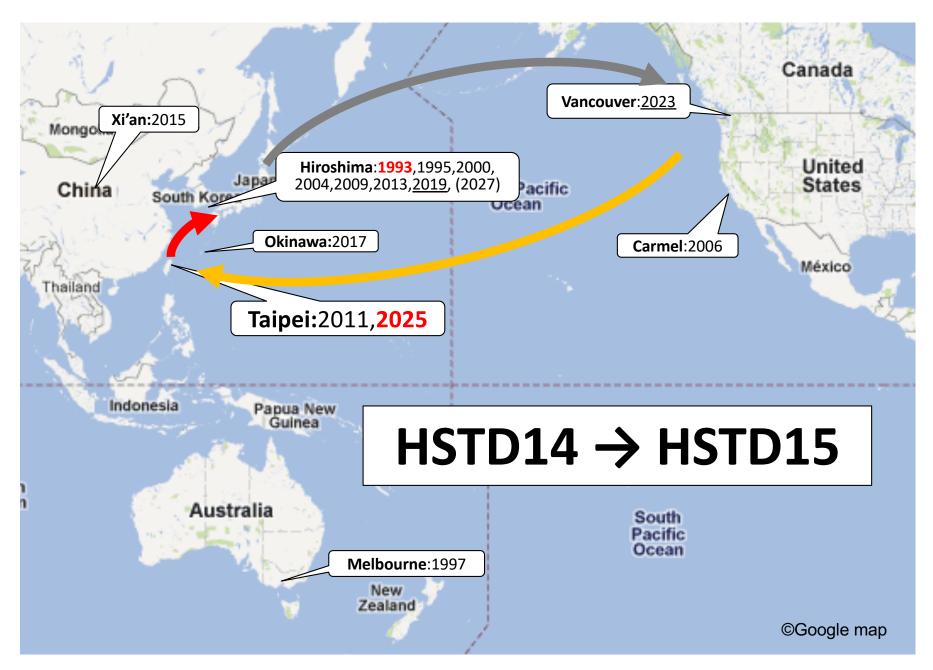
- Suen Hou (AS)
- Ling-Yao Hsi (AS)
- Tsui-Shya Liu (AS)
- Stathes Paganis (NTU)
- Hong-Ju Shi (AS)
- Yi Yang (AS)

Secretaries:

- Tracy Liu,
- Hong Ju Shi
- Emily Hsi
- Jingxuan Su
- Yan Jhen Liu
- Pu Kai Wang
- Yu Tang Wang

What's Next?

HSTD<u>15</u> in <u>2027</u>



"Hiroshima" symposia has been held around the Pacific rim, every 2-3 yrs, alternating one Hiroshima and two outside...

Taipei 2025 → Hiroshima 2027







Good bye, 2025



Hello, 2027

HSTD15 Organizers

- LOC members
 - Yasushi Fukazawa (Hiroshima U., Chair)
 - Kenta Shigaki
 - Yorito Yamaguchi
 - Hiromitsu Takahashi
 - Tsunefumi Mizuno
 - Yusuke Suda
 - Satoshi Yano
 - Yoshinobu Unno

One More Thing!

- HSTD14 is not finished yet!
- Your submission of the NIM Paper is forthcoming
- Watch the HSTD14 page for instructions
 - https://www-hep.phys.sinica.edu.tw//~hstd14/
- Submission page opening:

Dec. 1, 2025 – Feb. 28, 2026

• You can have a short break/rest to recover from the intensive sessions and the travel, but not much... ©

Another One More...

 There is an announcement from our colleagues, after this presentation,

Thus, the next page is "for the moment" ...

Good bye, and See you again in 2027!



Enjoy the rest of your time in Taipei, and Travel home safely