
THE FOURTH D2I COMPETITION · D2I @ IEEE ISIT 2026

# THE STILL MIRROR

*A competition at the intersection of information theory & machine learning*

Held in conjunction with the **IEEE International Symposium on Information Theory**, with final presentations & prize ceremony at IEEE ISIT 2026 in Guangzhou, China.

**Website**: https://data-to-information.github.io/isit2026/

**Online · May 24 – June 24, 2026 · Finals · July 2, 2026 · Guangzhou**

## COMPETITION TASKS

*RIS & mutual information · BRISC dataset*

### Task 0 · Channel Exploration

- Predict CSI across configurations, frequencies, positions
- Baseline warm-up · Frobenius norm

### Task 1 · Mutual Information Estimation

- Estimate MI of RIS-assisted channels from CSI
- Scored by RMSE & Spearman correlation

### Task 2 · Phase & Beamforming Optimization

- Jointly design 256-element RIS phases & beamforming
- Maximize achievable rate across positions

### Task 3 · Secret Key Generation

- Alice–Bob key generation under RIS
- Hamming distance to true key · beat Eve

## PRIZE POOL

*contributed by ITSoc & Techphant*

**$5,000**

IEEE Information Theory Society

TECHPHANT CONSULTING GROUP

**FINAL BREAKDOWN ANNOUNCED AT LAUNCH**

**KEY DATES · IEEE ISIT 2026 · Guangzhou, China · June 28 – July 3, 2026**

| Apr 24 | May 24 | Online phase | Jun 24 | Jul 2 |
|---|---|---|---|---|
| Registration opens | Teams announced & live | May 24 – Jun 24 | Final submission | Finals & prize ceremony |

**IEEE IT Society Membership**
Required · at least one member

**Teams up to 5**
Individual sign-ups matched into teams by organizers

**Fully Remote-Friendly**
Finalists may present in person **or** remotely

**Open to All Career Stages**
Academia, industry, government; students encouraged

## Register Your Team · Registration opens April 24, 2026

D2I @ IEEE ISIT 2026 · Click here to register — Kaggle platform & Slack workspace coming soon – stay tuned

**ORGANIZING COMMITTEE · IEEE IT Society Student & Outreach Committee**

Alejandro Lancho (UC3M, Spain) · Khac-Hoang Ngo (LiU, Sweden) · Stefano Rini (NCTU, Taiwan)

Student Leads: Mattia Piana (U. Padova) · Farhad Mirkarimi (McGill) · Markus Heinrichs (U. Cologne) · Nam Nguyen (Oregon State)

*Sponsored by the* **IEEE Information Theory Society** *and the* **IEEE ITSoc Guangzhou Chapter** *(special thanks to Li Chen (Sun Yat-Sen University) and Shao-Lun Huang (Tsinghua University)). With the support of* **Techphant Consulting Group**