Wang Xiaoming[1], Si Xu[2], Huang Lihong[1], Gao Hang[2], Xie Dongzi[2], Wu Xinming[2]
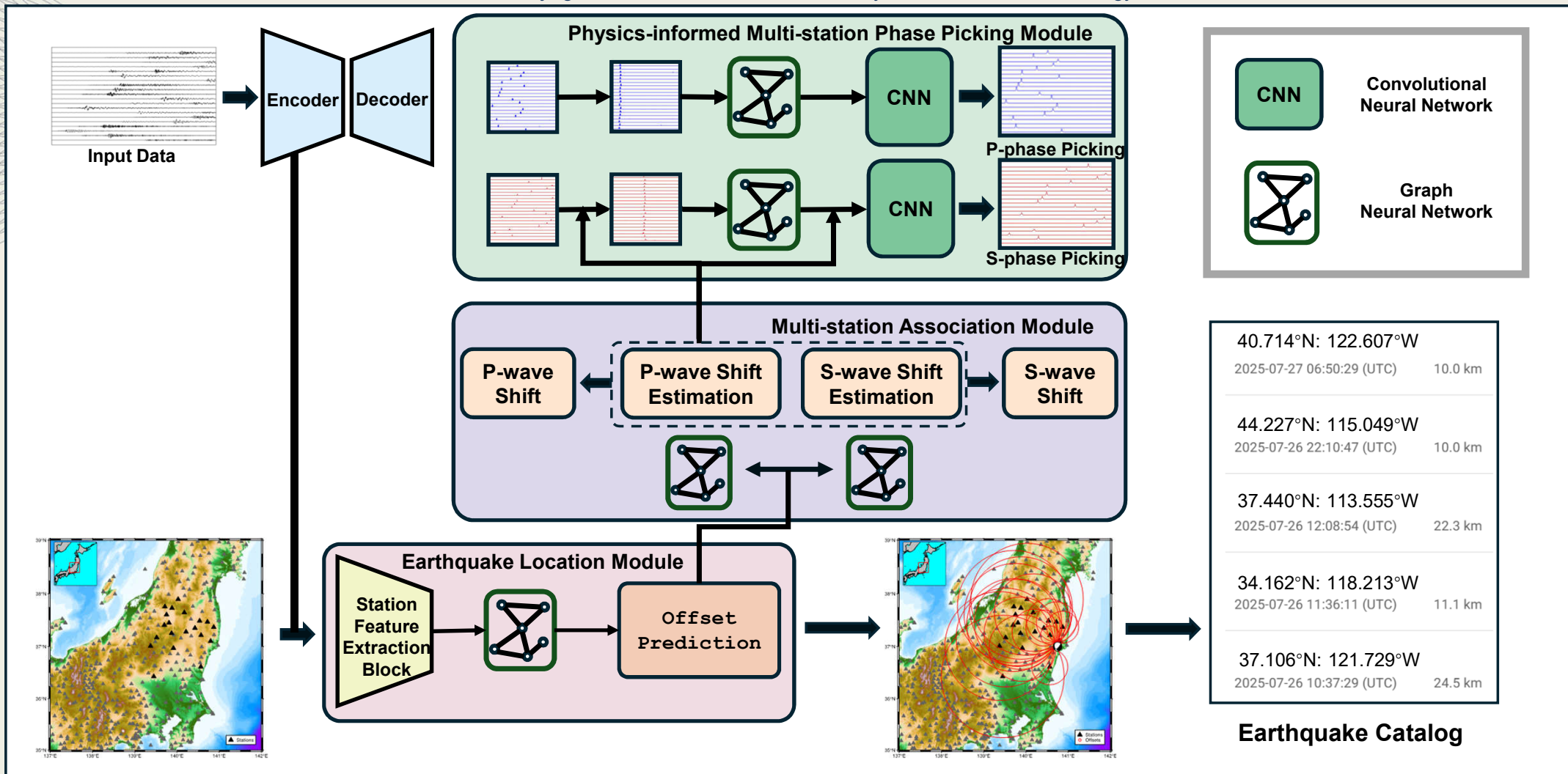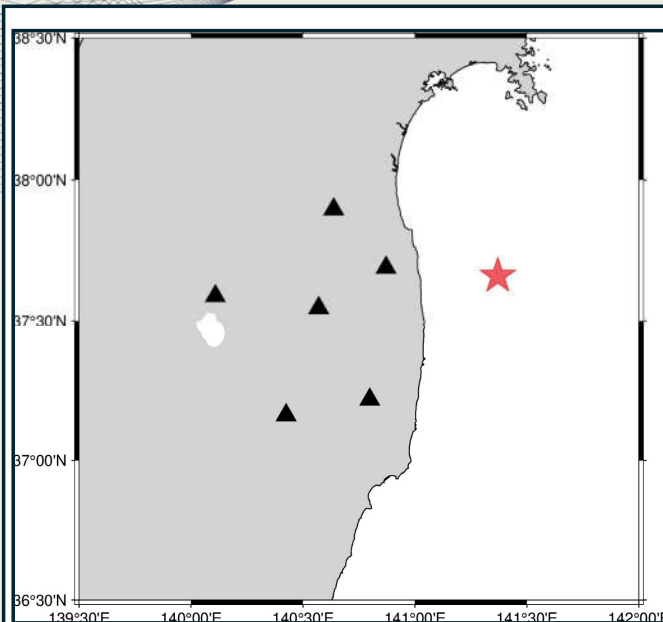
1 CTBT Beijing National Data Centre; 2 University of Science and Technology of China

Research on Multi-Station Phase Picking, Association and Location Based on Graph Neural Networks

P3.5-890

Research on Multi-Station Phase Picking, Association and Location Based on Graph Neural Networks

Wang Xiaoming[1], Si Xu[2], Huang Lihong[1], Gao Hang[2], Xie Dongzi[2], Wu Xinming[2]

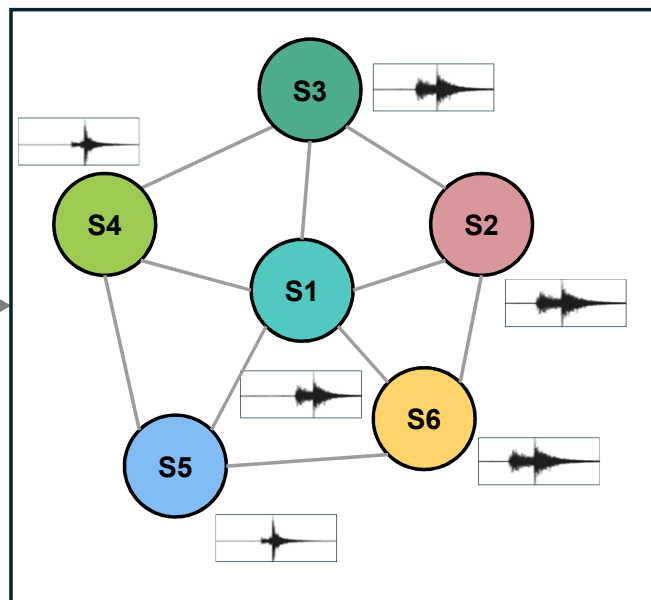1 CTBT Beijing National Data Centre; 2 University of Science and Technology of China

Multi-station Data

Graph Structure

Graph Neural Networks

SnT 2025
CTBT: SCIENCE AND TECHNOLOGY CONFERENCE
8 SEPTEMBER
ONLINE DAY
9 TO 12 SEPTEMBER
AT HOFBURG PALACE, VIENNA & ONLINE
P3.5-890

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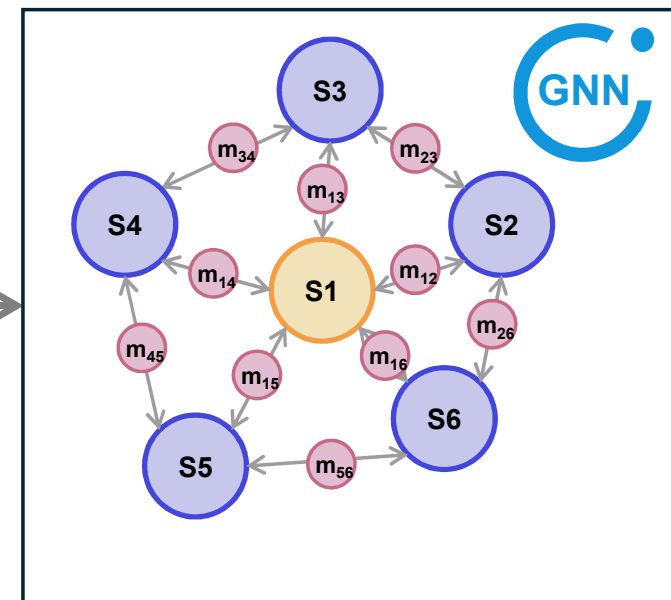1 CTBT Beijing National Data Centre; 2 University of Science and Technology of China

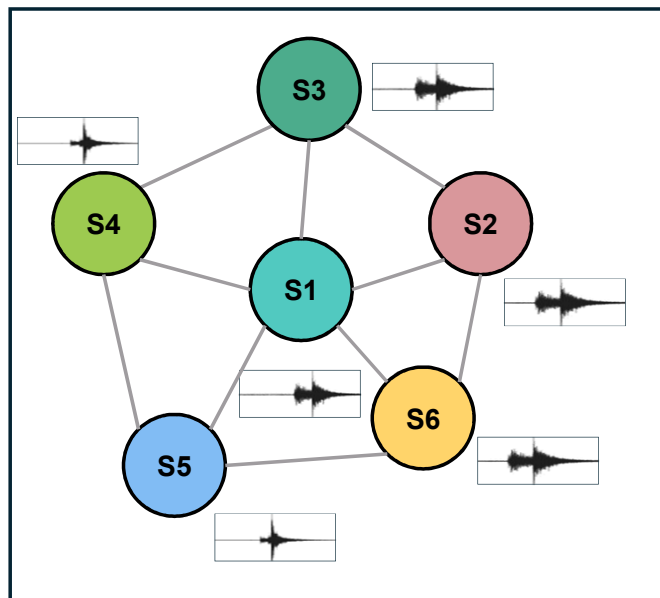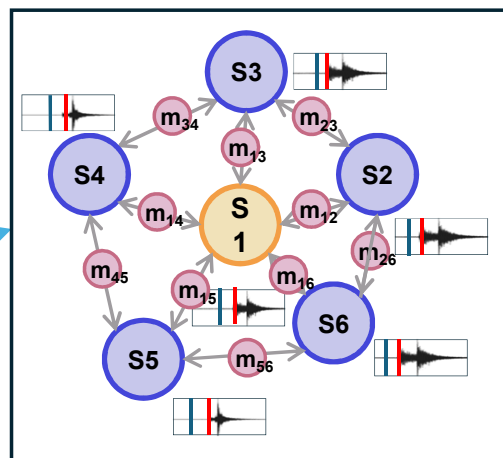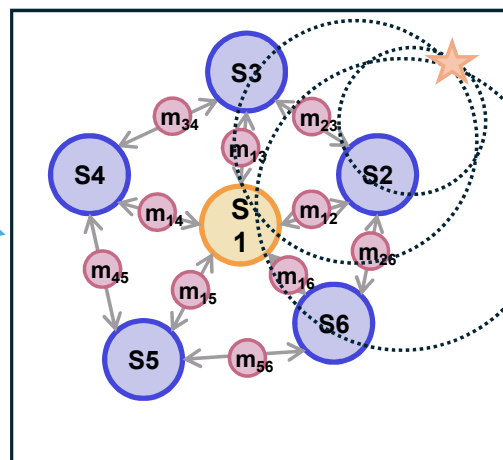**Graph structure and waveform**

Phase picking/association

Event location

Predicting
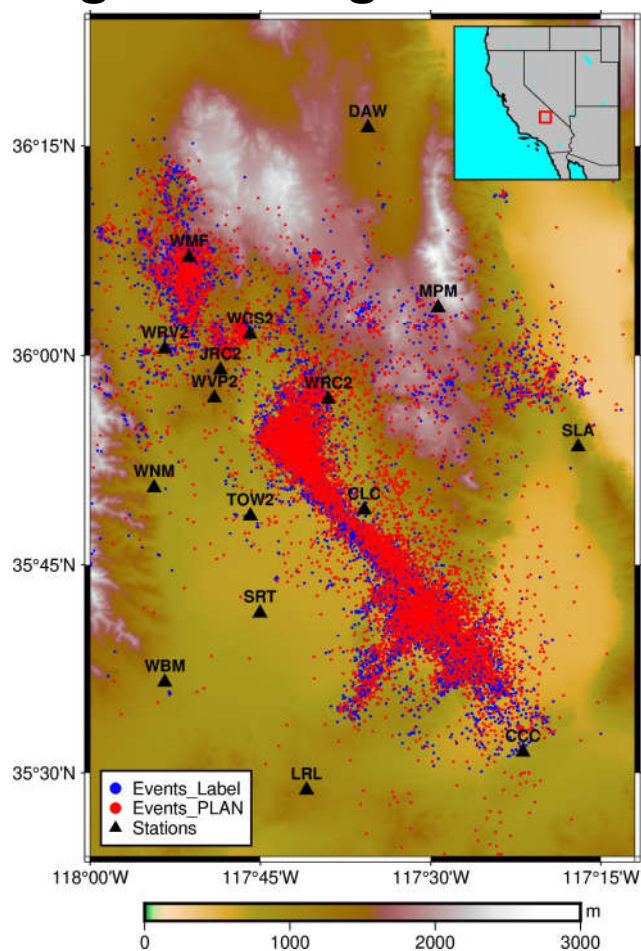
Interaction

40.714°N: 122.607°W
2025-07-27 06:50:29 (UTC)   10.0 km

44.227°N: 115.049°W
2025-07-26 22:10:47 (UTC)   10.0 km

37.440°N: 113.555°W
2025-07-26 12:08:54 (UTC)   22.3 km

34.162°N: 118.213°W
2025-07-26 11:36:11 (UTC)   11.1 km

37.106°N: 121.729°W
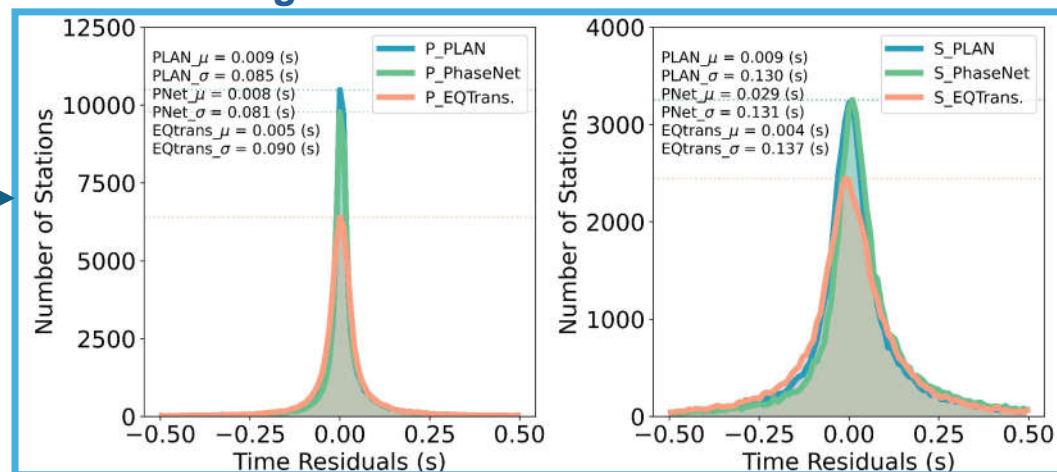2025-07-26 10:37:29 (UTC)   24.5 km

Earthquake Catalog

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