



## Challenge for Global Al Talents— "Catch Rain if You Can!"



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TIANCHI GLOBAL AI CHALLENGE ON METEOROLOGY

Catch Rain If You Can!



The Meteorological Bureau of Shenzhen Municipality and the Hong Kong Observatory joined hands to launch a global artificial intelligence (AI) challenge on meteorology on 23 May. Al marvels are invited to team up and apply weather Big Data to analyse and deep learn from the evolution patterns of past rain cases, aiming at improving the effectiveness of rainfall nowcasting. The contest consists of two phases - Qualifying Test and Final Test, and will end in October.

In addition to monetary prizes, the winning teams will be invited to present their innovative works and receive their awards at an international conference in Singapore in November. As of the

beginning of July, over 1,000 teams had registered for the contest. If you're an Al wizard, don't miss this golden opportunity! Please gather some teammates, visit the contest website, and take the challenge: https://tianchi.aliyun.com/competition/introduction. htm?raceId=231662&\_lang=en\_US.





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World Meteorological Organization (WMO) Regional Specialized Meteorological Centre (RSMC)

## Aviation Nowcasting

Real-time SigConv ATNS ATLAS

## Real-time SigConv (Significant Convection)

Significant convection presents imminent threats to in-flight aircraft for the associated hazards of lightning, turbulence, icing, rain and hail, etc. Limited by the range and coverage of on-board weather reader, pilots may not have a complete picture of the distribution and short-term evolution of convective systems within their intended flight path. The product shown here uses multiple channels, high resolution meteorological statellite data and real-time global lightning data to automatically identify and nowcast the hazardous areas of significant convection for aircraft's avoidance. More details of the satellite-based algorithm can be found in the paper. Development of Satellite Reflectivity Retrieval Technique for Tropical Cyclone Rainfall Noxcasting.



Sample page from the Regional Specialized Meteorological Centre for Nowcasting website

for Nowcasting

Wong Wai⊦kin

The Hong Kong Observatory's nowcasting service has marked a new milestone. At the 70th Session of the Executive Council of the WMO, held in June, the Hong Kong Observatory was designated as the "Regional Specialized Meteorological Centre for Nowcasting" (RSMC) to provide regional nowcasting information and technical support to the national meteorological and hydrological services of Asia.

Over the years, the Observatory has been actively developing rainstorm nowcasting techniques, through its "SWIRLS" system to support heary rain forecasting and warning services, and participating in and organising international scientific research cooperation and training projects to share rainstorm forecasting experience. As the Observatory becomes the RSMC for nowcasting, it will further develop advanced technologies to contribute to meteorological services and disaster prevention and mitigation.