

## High-performance and Low-cost coherent Doppler lidar: the evaluation test and deployment in Tokyo metropolitan area

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The coherent Doppler lidar (CDL) is very useful tool to measure the horizontal wind field in the clear air condition. As the next generation meteorological remotesensing technique, Multi-CDL combination has a great potential to detect the trigger of localized severe storms by detecting strong convergence.

Our project aims to make an innovation by developing the high performance CDL detectable within the range of around 30 km. The cost of our lidar system is estimated to 1/10 of the conventional instruments. The evaluation test of prototype and the future plan is released in this paper.

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