

## レーザー・ライダーによる境界層中の乱流・小規模擾乱の観測

# 村山 泰啓 [1]; 岩井 宏徳 [2]; 関澤 信也 [1]; 石井 昌憲 [3]; 水谷 耕平 [4]; 小田 僚子 [5]; 川村 誠治 [1]  
[1] NICT; [2] 情通機構; [3] 情通研; [4] 通総研; [5] 情報通信研究機構

### Observation of turbulent and small-scale disturbances in the boundary layer with lidar and radars

# Yasuhiro Murayama[1]; Hironori Iwai[2]; Shinya Sekizawa[1]; SHOKEN ISHII[3]; Kohei Mizutani[4]; Ryoko Oda[5]; Seiji Kawamura[1]  
[1] NICT; [2] NICT; [3] NICT; [4] CRL; [5] NICT

Remote-sensing using optical and radio waves are a strong tool to probe the boundary layer, where the most human activity exists. The planetary or atmospheric boundary layer is important since it is the place of interaction between the land surface and atmosphere occurs; for example in urban area the human-made structures (buildings and forests) changes the land condition which may affect climate and environment. Today air pollutant emission from urban and industrial areas are significantly increased affecting global air quality which can be seen in space-borne atmospheric observation data; that is, the limited urban area has not only an impact to local environment but also is affecting global environment. We have been targeting the direct observation of the atmospheric planetary boundary layer (ABL) using lidar and radar techniques. Temporally and spatially continuous observation of ABL is expected to enable us to document more precise view of turbulence and steams which are deformed due to land surface roughness.