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# Estimation of the structure characteristic of refractive index of air from coherent Doppler lidar data

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A technique is proposed for determination of the structure characteristic of refractive index of air from data of a coherent Doppler wind lidar. The proposed technique is tested in atmospheric experiments. Time profiles of the structure characteristic of refractive index in the atmospheric surface layer are obtained and compared with the time profiles of the dissipation rate of the kinetic energy of turbulence obtained from the same lidar data. It is shown in this way that coherent lidars can be used for investigation of not only wind turbulence, but also temperature turbulence.