



## **Turbulence and biosphere-atmosphere exchange processes**

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Biosphere interacts with the atmosphere and the interaction is revealed in the form of the exchange of mass, heat and momentum between those systems. This interaction is mediated by atmospheric turbulence within the atmospheric boundary layer and especially within the lowest part, the surface layer. The interaction is acting in both directions: for example, the surface vegetation substantially affects the microclimate within the plant community and the surface layer and, in turn, the microclimate influences the plant community. The major relevant research items are: nighttime processes, horizontal and vertical advection, mismatches in energy balance, flux source areas, canopy and trunk-space phenomena and deposition of aerosol particles. These are the areas where major steps in understanding could be achieved by more tight interactions between researchers studying turbulent flow and biosphere-atmosphere exchange processes.