

Alexander Baklanov · Branko Grisogono (Eds.)

Atmospheric Boundary Layers – Nature, Theory, and Application to Environmental Modelling and Security

This collection of peer reviewed papers represents a concise, up-to-date summary of recent progress in planetary boundary layer (PBL) physics and its basic applications. As such, it makes a major contribution to the exchange of knowledge and ideas between physicists, meteorologists and environmental modellers and sets out the course to be followed in subsequent researches, in particular, those aiming to improve PBL parameterizations in climate, numerical weather prediction, air quality, emergency preparedness and other environmental models.

Major themes covered are: Nature and theory of turbulent boundary layers; modelling of boundary-layer flows; application to environmental security; Air flows within and above urban and other complex canopies; Air-sea-ice interactions.

The NATO Advanced Research Workshop, held in Dubrovnik, Croatia, 18–22 April 2006, that gave rise to this book, was attended by 57 scientists drawn from 21 countries on four continents. It was dedicated to Professor Sergej Zilitinkevich reached the milestone age of 70 – in recognition of his outstanding career. A substantial number of papers comprising the book are based on or linked to his fundamental works.

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