Table of contents

Pref	ace	VII
Pref	ace of the first edition	IX
Biog	Biographies of the authors	
Par	rt one – Preliminaries	
1.	Environmental fluid mechanics: Current issues and future outlook B. Cushman-Roisin, C. Gualtieri & D.T. Mihailović	3
Par	rt two – Processes at atmospheric interfaces	
2.	Point source atmospheric diffusion B. Rajković, I. Arsenić & Z. Grsić	21
3.	Air–sea interaction V. Djurdjević & B. Rajković	53
4.	Modelling of flux exchanges between heterogeneous surfaces and atmosphere D.T. Mihailović & D. Kapor	79
5.	Desert dust uptake-transport and deposition mechanisms – impacts of dust on radiation, clouds and precipitation G. Kallos, P. Katsafados & C. Spyrou	107
Par	rt three – Processes at water interfaces	
6.	Gas-transfer at unsheared free-surfaces C. Gualtieri & G. Pulci Doria	145
7.	Advective diffusion of air bubbles in turbulent water flows <i>H. Chanson</i>	181
8.	Exchanges at the bed sediments-water column interface F.A. Bombardelli & P.A. Moreno	221
9.	Surface water and streambed sediment interaction: The hyporheic exchange <i>D. Tonina</i>	255
10.	Environmental fluid dynamics of tidal bores: Theoretical considerations and field observations <i>H. Chanson</i>	295

Part four – Processes at interfaces of biotic systems 325 11. Transport processes in the soil-vegetation-lower atmosphere system DT Mihailović 347 Turbulence and wind above and within the forest canopy B. Lalic & D.T. Mihailović 369 Flow and mass transport in vegetated surface waters Y. Tanino 395 14. Uniform flow and boundary layers over rigid vegetation P. Gualtieri & G. Pulci Doria 423 15. Mass transport in aquatic environments G. Nishihara & J.D. Ackerman Maps serving as the combined coupling between interacting environmental 453 interfaces and their behavior in the presence of dynamical noise D.T. Mihailović & I. Balaž 473 Author index 475 Subject index