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Nota di contenuto	<ul> <li>Environmental Fate Modelling of Pesticides; Contents; 1 Introduction; 2</li> <li>Mathematical Preliminaries; 2.1 Ordinary Differential Equations; 2.2</li> <li>Partial Differential Equations; 2.3 Geostatistics; 3 Kinetics; 3.1 Linear</li> <li>Models; 3.1.1 The Compartment Concept; 3.1.2 Simple Linear Systems;</li> <li>3.1.3 Solution by Matrix Methods; 3.1.4 Solution by Laplace</li> <li>Transformation; 3.2 Nonlinear Models; 3.2.1 The Limits of Linear</li> <li>Models; 3.2.2 Nonlinear Kinetics due to Adsorption; 3.2.2.1 Equilibrium</li> <li>Approach; 3.2.2.2 Kinetic Approach; 3.2.3 Nonlinearities due to Spatial</li> <li>Heterogeneity</li> <li>3.2.4 Nonlinearities Encountered in Biological Degradation3.2.4.1</li> <li>Capacity Limited Degradation; 3.2.4.2 Substrate Inhibition; 3.2.4.3</li> <li>Population Dynamic Effects; 3.2.4.4 Long Term Persistence of Activity;</li> <li>3.2.4.5 Stochastic Approach for Activity Life Times; 3.2.4.6 Shift of</li> <li>Population Composition; 3.2.4.7 Interactions; 3.3 Kinetics of Dose-</li> <li>Response; 3.3.1 Linking Concentration and Effect; 3.3.2 Mathematical</li> <li>Form of Dose-Response-Curves; 3.3.3 Time Courses of the Response;</li> </ul>

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Sommario/riassunto	This book is concerned with modelling the fate of organic substances in the soil. Once a chemical enters the soil it is subject to various transformation processes. It partitions between the liquid, solid and gaseous phase, it is sorbed to different binding sites with a different strength of bonding, it may decay by a simple chemical process or it may be transformed by microorganisms. Solute transport through soil and subsurface is mediated by water flow and is strongly influenced by solute sorption. To complicate matters, soil structures are heterogeneous. All these processes are embedded in	