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Nota di contenuto	Table of Contents; Title; Copyright; Acknowledgements; List of Symbols; List of Acronyms; Preface; Introduction; Chapter 1: Basic Physics of the Atmosphere and Radiation; 1.1. Structure and composition of Earth's atmosphere; 1.2. Atmospheric aerosols; 1.3. Clouds; 1.4. Radiation in Earth's atmosphere; 1.5. Radiation budget of the climate system; 1.6. For further information; Chapter 2: Instrumentation and Sensors; 2.1. Platforms, satellites and sensors; 2.2. Infrared detection techniques; 2.3. For further information; Chapter 3: Forward Radiative Transfer in Absorbing Atmosphere 3.1. Gaseous absorption and emission3.2. Radiative transfer equation in an absorbing medium; 3.3. Solving the RTE; 3.4. For further information; Chapter 4: Forward Radiative Transfer in Scattering Atmosphere; 4.1. Atmospheric scattering; 4.2. Polarization; 4.3. Radiative transfer equation (RTE) in a scattering medium; 4.4. Numerical methods to solve the RTE in a scattering plane?parallel medium; 4.5. List of radiative transfer codes; 4.6. For further

information; Chapter 5: Methods of Geophysical Parameter Retrieval;
5.1. Inversion process; 5.2. Linear models; 5.3. Nonlinear inversion
5.4. Optimal estimation method (OEM)5.5. Lookup tables; 5.6. For
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