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Sommario/riassunto	This advanced graduate textbook presents main results and techniques in Functional Analysis and uses them to explore other areas of mathematics and applications. Special attention is paid to creating appropriate frameworks towards solving significant problems involving dierential and integral equations. Exercises at the end of each chapter help the reader to understand the richness of ideas and methods offered by Functional Analysis. Some of the exercises supplement

theoretical material, while others relate to the real world. This textbook, with its friendly exposition, focuses on different problems in physics and other applied sciences and uniquely provides solutions to most of the exercises. The text is aimed toward graduate students and researchers in applied mathematics, physics, and neighboring fields of science.