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Sommario/riassunto	The topic of lattice quantum spin systems is a fascinating and by now well-established branch of theoretical physics. However, many important questions remain to be answered. Their intrinsically quantum

mechanical nature and the large (usually effectively infinite) number of spins in macroscopic materials often leads to unexpected or counter-intuitive results and insights. Spin systems are not only the basic models for a whole host of magnetic materials but they are also important as prototypical models of quantum systems. Low dimensional systems (as treated in this primer), in 2D and especially 1D, have been particularly fruitful because their simplicity has enabled exact solutions to be determined in many cases. These exact solutions contain many highly nontrivial features. This book was inspired by a set of lectures on quantum spin systems and it is set at a level of practical detail that is missing in other textbooks in the area. It will guide the reader through the foundations of the field. In particular, the solutions of the Heisenberg and XY models at zero temperature using the Bethe Ansatz and the Jordan-Wigner transformation are covered in some detail. The use of approximate methods, both theoretical and numerical, to tackle more advanced topics is considered. The final chapter describes some very recent applications of approximate methods in order to show some of the directions in which the study of these systems is currently developing.