Record Nr. UNINA9910450434403321 Titolo Frustrated spin systems [[electronic resource] /] / editor, H.T. Diep Hackensack, NJ,: World Scientific, c2004 Pubbl/distr/stampa **ISBN** 1-281-88085-X 9786611880859 981-256-781-X Descrizione fisica 1 online resource (625 p.) Altri autori (Persone) DiepH. T Disciplina 538/.3 Soggetti Magnetization Rotational motion Spin waves Ferromagnetism Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali 1st ed. published in 1994 as Magnetic systems with competing interactions. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto PREFACE: CONTENTS: CHAPTER 1 FRUSTRATION - EXACTLY SOLVED FRUSTRATED MODELS; CHAPTER 2 PROPERTIES AND PHASE TRANSITIONS IN FRUSTRATED ISING SYSTEMS: CHAPTER 3 RENORMALIZATION GROUP APPROACHES TO FRUSTRATED MAGNETS IN D=3; CHAPTER 4 PHASE TRANSITIONS IN FRUSTRATED VECTOR SPIN SYSTEMS: NUMERICAL STUDIES; CHAPTER 5 TWO-DIMENSIONAL QUANTUM ANTIFERROMAGNETS; CHAPTER 6 ONE-DIMENSIONAL SPIN LIQUIDS; CHAPTER 7 SPIN ICE; CHAPTER 8 EXPERIMENTAL STUDIES OF FRUSTRATED PYROCHLORE ANTIFERROMAGNETS; CHAPTER 9 RECENT PROGRESS IN SPIN GLASSES; INDEX Sommario/riassunto Frustrated spin systems have been first investigated five decades ago. Well-known examples include the Ising model on the antiferromagnetic triangular lattice studied by G H Wannier in 1950 and the Heisenberg helical structure discovered independently by A Yoshimori, J Villain and T A Kaplan in 1959. However, many properties of frustrated systems

are still not well understood at present. Recent studies reveal that established theories, numerical simulations as well as experimental

techniques have encountered many difficulties in dealing with frustrated systems. This volume highlights the lates