Record Nr. UNINA9910741198703321 Autore Sharan Pankaj **Titolo** Some unusual topics in quantum mechanics / / Pankaj Sharan Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2020] ©2020 **ISBN** 3-030-60418-7 Edizione [1st ed. 2020.] 1 online resource (XV, 104 p. 3 illus.) Descrizione fisica SpringerBriefs in Physics, , 2191-5423 Collana Disciplina 530.12 Quantum theory Soggetti Elementary Particles, Quantum Field Theory Mathematical physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes index. Note generali Position operators of non-relativistic quantum mechanics -- A bundle Nota di contenuto picture of quantum mechanics -- A beam of particles = a plane wave? -- Star-product formulation of quantum mechanics -- Can there be a non-linear quantum mechanics? -- Interaction = exchange of quanta -- Proof of Wigner's theorem. In this book, the author addresses selected topics in quantum Sommario/riassunto mechanics that are not usually covered in books, but which are very helpful in developing a student's interest in, and a deeper understanding of the subject. The topics include two different ways of looking at quantum mechanics; three clarifying topics that students often find confusing; one classic theorem never proved in the classroom; and a discussion on whether there can be a non-linear quantum mechanics. The book can be used as supporting material for

graduate-level core courses on quantum mechanics.