1. Record Nr. UNINA9910555184803321 Autore Abu-Rgheff Mosa Ali **Titolo** 5G physical layer technologies / / Mosa Ali M Abu-Rgheff Pubbl/distr/stampa Hoboken, New Jersey:,: John Wiley & Sons, Inc.,, [2020] **ISBN** 1-119-52549-7 1-119-52554-3 1-119-52552-7 Descrizione fisica 1 online resource (554 pages) Disciplina 621.3981 Soggetti 5G mobile communication systems - Equipment and supplies Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front Matter -- Introduction -- 5G Enabling Technologies: Small Cells, Full-Duplex Communications, and Full-Dimension MIMO Technologies -- 5G Enabling Technologies: Network Virtualization and Wireless Energy Harvesting -- 5G Enabling Technologies: Narrowband Internet of Things and Smart Cities -- Millimetre Wave Massive MIMO Technology -- mmWave Propagation Modelling: Atmospheric Gaseous and Rain Losses -- mmWave Propagation Modelling -- Weather, Vegetation, and Building Material Losses -- Wireless Channel Modelling and Array Mutual Coupling -- Massive Array Configurations and 3D Channel Modelling -- Massive MIMO Channel Estimation Schemes --Linear Precoding Strategies for Multi-User Massive MIMO Systems. Sommario/riassunto "Hot topic which will be the backbone of IoT connecting devices." machines and vehicles. Fills gaps in the current literature where technologies are either not explained in depth or not discussed at all. Includes many tables and illustrations to aid the reader. The proposed book is written in concise and unambiguous statements on 5G and comprises 12 chapters. Each chapter is made up of 30 pages and contains texts, mathematical analysis, and applications supported by figures, graphs, data tables, appendices, and a list of up to date references. Technologies considered are, according to the general consensus of industry and research community, expected to be part of

the 5G standardization processes. Each application is modelled in

schematic diagram, and is considered in depth through mathematical analysis and its performance is assessed. Furthermore, published simulation data and measurement are checked. Each chapter concludes in an executive summary of the key issues"--