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IMPAIRMENT.

Sommario/riassunto	This book provides insights in the field of free-space optical (FSO) communication, which is considered the next frontier for future-generation, broadband wireless networks. The authors discuss various factors limiting practical implementations of the mixed radio frequency/free-space optical (RF/FSO) relaying technology, to determine the impact of important parameters on the performance of mixed RF/FSO relaying systems. The book presents the various generalized channel models that can be adopted to model RF and FSO link statistics. Further, it presents the modeling of amplify-and-forward (AF) and decode-and-forward (DF) forms of cooperative relaying schemes. This book enables readers to understand the various mitigation techniques that can be utilized in mixed RF/FSO relaying in order to improve the overall user experience. The authors discuss the importance of artificial intelligence and machine learning in the field of wireless optical communication systems. Finally, the optical wireless channel modeling using both CNN and LSTM model is explored with their potential to enhance the accuracy and reliability of channel estimation. Provides comprehensive introduction free-space optical (FSO) communication networks; Includes performance analysis and wireless channel modeling schemes of mixed RF/FSO relaying systems; Describes several FSO communication schemes to enhance the performance of next generation networks.