

Applications of LDPC error-correcting codes in wireless communications

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Abstract: This topic focuses on researching and applying LDPC (Low-Density Parity-Check) coding methods in wireless communication to address the issue of signal instability in transmission environments. The objective is to build an LDPC code system that optimizes data reception quality under strong interference conditions. The research methodology includes theoretical analysis and experimentation to evaluate the effectiveness of LDPC code models. The expected results of this topic not only provide application solutions for wireless communication but also make significant contributions to the development of advanced information transmission technology.

Keywords: LDPC, error correction code, wireless communication, coding system, reception quality