

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Mobile Satellite Communications and Navigation Technology (3)

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APPLICATIONS OF NONLINEAR SIGNAL PROCESSING TECHNOLOGIES IN SATELLITE
COMMUNICATIONS

Abstract

Satellite communications play an important role in our society, but some technologies do limit its farther application and rapid development, such as technologies of interference suppression, secret communications, nonlinear aberrance of satellite channel, limitation of frequency recourses, etc.. At the same time, nonlinear signal processing technology, which is one important embranchment of modern signal processing technologies, has been used not only in baseband signal processing, but also in intermediate frequency and radio frequency band, and its advantages have been approved in many situations. Based on this, recent research results of nonlinear technologies in satellite communications is present in this paper, including their latency application aspect and advantages in satellite communications.