

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Advanced Technologies (2)

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RESEARCH ON SPACE COHERENT OPTICAL COMMUNICATION TECHNOLOGY

Abstract

In recent years, space optical communication becomes a hot research topic in the field of satellite communication. Coherent optical communication is one important way to develop new generation high data rate optical communication terminals with less mass, volume and power. In the paper, the current research status and future development trend of space coherent optical communication technology are introduced. Some crucial technical problems of the application of coherent optical communication in LEO-to-GEO links are discussed. Finally, a research program of homodyne BPSK (Binary Phase Shift Keying) coherent optical communication inter-orbit links with Doppler shift compensation is provided.