

Modern scientific and applied problems of meteor scatter radio propagation

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Abstract

© 2019 IEEE. The paper briefly outlines main key points in history of radio meteor research at the Kazan Federal University starting from the first radar observations of meteor radio reflections to development of unique radio systems for high-precision (nanosecond) distant synchronization of time scales. Recent achievements in designing of promising meteor systems for creation and secure distribution of secret encryption keys are considered. Main scientific and applied problems in studying nonreciprocal properties of radio wave propagation in meteor burst communications are discussed.

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Keywords

Encryption key, Meteor burst communications, Meteor radio reflection, Nonreciprocal radio wave propagation, Radar, Synchronization, Time scale

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