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Simultaneous observation of the forward and backward scattered radio reflections from ionized meteor trails

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Abstract

© 2017 IEEE. The authors consider a possibility of observation of meteor trails providing simultaneous scattering of a probing signal both in forward and backward directions. Such trails might present some valuable data on physics of meteor phenomena useful both for improving of theoretical models and for development of advanced technologies for meteor burst communications. By computer simulation, we identified principal distinctive properties of the 2-way scattering meteor trails and assessed their percentage at different geographical locations of a meteor radio link.

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Keywords

Backward scattering, Forward scattering, Meteor burst propagation, Meteor radio reflection, Meteor trail, Scattering of radio waves

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