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A Method for Processing Unwanted Target Caused by Reflection in Secondary Surveillance Radar

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Abstract : Along with the development of Secondary surveillance radar (SSR) in air traffic surveillance systems, the Multipath phenomena has always been a noticeable problem. This following article discusses the geometrical aspect and power aspect of the Multipath interference caused by reflection in SSR and proposes a method to deal with these unwanted multipath targets (ghosts) by false-target position predicting and adaptive target suppressing. A field-experiment example is mentioned at the end of the article to demonstrate the efficiency of this measure.

Keywords: multipath, secondary surveillance radar, digital signal processing, reflection

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