



# Research Letters in Signal Processing

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## Research Letter

### NLOS Mitigation for TOA Location Based on a Modified Deterministic Model

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## Abstract

Wireless location becomes difficult due to contamination of measured time-of-arrival (TOA) caused by non-line-of-sight. In this letter, TOA measurements seen at base stations are adjusted by scale factors, and a modified deterministic model is built. An effective numerical solution is proposed to resolve the scale factors and mobile position. A simulation comparison of four algorithms indicates that the proposed algorithm outperforms the other three algorithms.