
# High Resolution Localization of Narrowband Radio Emitters Based on Doppler Frequency Shifts

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**Highlights**

- We propose an efficient Direct Position Determination (DPD) method for Doppler-based localization of multiple stationary narrowband emitters.
- We also propose a modified algorithm to enhance the robustness of the new estimator to intermittent sources.
- Our work shows that the DPD approach enables using array processing methods even for single sensors in situations that have not been associated with array processing so far, provided that several snapshots that maintain the spatial signature can be obtained.