



can we use the best 2 out of our list

Yes, the best two papers for forming a strong, modern literature review from your list are:

- **Advanced RSS-Based Multisource Localization Sequential Hypothesis Testing for Robust Location Estimation (2024)**

This paper stands out because it presents a computationally efficient, robust algorithm capable of sequentially estimating both the number and location of multiple signal sources—addressing a long-standing challenge in wireless localization. Its strong use of hypothesis testing provides transparency and reliability, outperforming older exhaustive or multi-resolution methods, especially in noisy or complex environments.^[1]

- **A Learning-Based Sequence-to-Sequence WiFi Fingerprinting Framework for Accurate Pedestrian Indoor Localization Using Unconstrained RSSI (2025)**

This is currently state-of-the-art for real-world performance and scalability, thanks to its deployment of deep neural networks (ResNet, LSTM) to learn spatiotemporal patterns from massive RSSI datasets. It sets a new benchmark in location accuracy, adaptability to changing infrastructure, and resilience to missing data—effectively surpassing all classical and early machine learning methods.^[2]

Why These Two Are Best

- Together, they **cover the full progression** from advanced statistical model-driven localization to adaptive, data-intensive, environment-agnostic deep learning.
- Both utilize RSSI, enabling direct comparison and synthesis.
- They address key practical challenges: multiple unknown sources (Paper 1), dynamic and realistic indoor scenarios (Paper 2).
- Each paper represents a significant leap forward in method and deployment suitability, with proven robustness in current wireless localization research.

Next Literature Review Steps

- **Start with Paper 1:** Explain statistical basis, sequential hypothesis testing, how it enables robust multisource tracking and why it advanced the field.
- **Transition to Paper 2:** Highlight how seq2seq deep learning further improves accuracy, generalizes to more complex deployments, and handles time-series data for dynamic environments.
- **Synthesize:** Show the evolution—from rigorous, model-based approaches with clear mathematical guarantees to flexible, data-driven neural models that excel in varied, large-

scale real environments.

These articles provide authoritative anchors for a review on sequential wireless localization and define the cutting edge in both robustness and adaptability. Yes, choosing the two best papers from your list for literature review is feasible. Based on their quality and relevance to wireless sequential localization, the top choices are:

1. Advanced RSS-Based Multisource Localization Sequential Hypothesis Testing for Robust Location Estimation (2024):

- It introduces a powerful sequential binary hypothesis testing algorithm that efficiently and robustly estimates both the number and locations of multiple sources using RSSI data.
- The method is computationally optimal, outperforms exhaustive search and traditional multi-resolution approaches, and excels even in challenging, noisy scenarios.^[1]

2. A Learning-Based Sequence-to-Sequence WiFi Fingerprinting Framework for Accurate Pedestrian Indoor Localization Using Unconstrained RSSI (2025):

- This modern deep learning model uses ResNet, LSTM, and sequence-to-sequence techniques to convert temporal RSSI sequences from WiFi signals into accurate location trajectories for real-world scenarios.
- It handles dynamic infrastructure, is scalable to large deployments, and achieves top accuracy and robustness in mobile environments.^[2]

These two papers clearly represent the peak of recent progress in sequential wireless localization. Using them as the basis for a literature review demonstrates both the strength of advanced statistical modeling and the transformational impact of learning-based approaches. Yes, it is highly effective to use these two best papers from your collection for your literature review:

1. Advanced RSS-Based Multisource Localization Sequential Hypothesis Testing for Robust Location Estimation (2024)

2. A Learning-Based Sequence-to-Sequence WiFi Fingerprinting Framework for Accurate Pedestrian Indoor Localization Using Unconstrained RSSI (2025)

These papers showcase the field's leading advances in RSSI-driven sequential localization: one delivers rigorous algorithmic robustness for challenging multisource environments, while the other pushes deep learning's real-world deployment for scalable, adaptive, and accurate pedestrian tracking. Working with these two allows you to connect statistical innovation and machine learning breakthroughs, providing a powerful literature review on cutting-edge wireless localization.^[1] ^[2]



1. Advanced_RSS-Based_Multisource_Localization_Sequential_Hypothesis_Testing_for_Robust_Location_Es.pdf
2. 2025-A_Learning-Based_Sequence-to-Sequence_WiFi_Fingerprinting_Framework_for_Accurate_Pedestrian.pdf

