# Article information:

Reconstructed full-waveform inversion with the extended source | SEG Technical Program Expanded Abstracts 2017  
<https://library.seg.org/doi/10.1190/segam2017-17736054.1>

# Article summary:

1. Conventional full waveform inversion (FWI) has been used to generate high-fidelity earth models for better seismic imaging and structural interpretation.

2. To relax the requirements of good initial models and adequate low frequencies, a novel approach called reconstructed full waveform inversion with the extended source (RFWI) is proposed.

3. RFWI extends the solution space and therefore overcomes some of the problems with local minima that prevent conventional FWI from obtaining a reliable solution with an inaccurate starting model and/or insufficient low-frequency data.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article provides a detailed overview of the proposed novel approach to time domain reconstructed full waveform inversion with the extended source (RFWI). The article is well written and provides clear explanations of how RFWI works, as well as its potential benefits over conventional FWI. However, there are some potential biases that should be noted. For example, the article does not provide any evidence or research to back up its claims about RFWI being more effective than conventional FWI in providing reliable updated models. Additionally, it does not explore any counterarguments or possible risks associated with using RFWI instead of conventional FWI. Furthermore, it does not present both sides equally; instead, it focuses solely on promoting the benefits of RFWI without considering any potential drawbacks or limitations. Therefore, while this article provides an interesting overview of RFWI, it should be read critically and further research should be conducted before relying solely on its claims about RFWI's effectiveness compared to conventional FWI.

# Topics for further research:

* RFWI drawbacks
* RFWI limitations
* RFWI risks
* RFWI counterarguments
* Comparison of RFWI and FWI
* Research on RFWI effectiveness

# Report location:

<https://www.fullpicture.app/item/614d920b2546edeb6ac12a84de7a7b15>