# Article information:

Local cross-correlation imaging condition for reverse time migration | SEG Technical Program Expanded Abstracts 2020  
<https://library.seg.org/doi/10.1190/segam2020-3424632.1>

# Article summary:

1. A local cross-correlation imaging condition is proposed for reverse time migration (RTM) to reduce the limitation of synchronous availability of source and receiver wavefields.

2. This method only requires storing a complete waveform of the direct wave in each spatial node’s record, and does not require remodeling the source wavefield.

3. Numerical simulations show that this method can generate high-accuracy images and reduce storage cost significantly.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides a detailed description of the proposed local cross-correlation imaging condition for reverse time migration (RTM). The article is well written and provides sufficient evidence to support its claims, such as numerical simulations showing that this method can generate high-accuracy images and reduce storage cost significantly. However, there are some potential biases in the article that should be noted. For example, the article does not explore any counterarguments or present both sides equally when discussing the advantages of this method over other methods. Additionally, it does not mention any possible risks associated with using this method or provide any evidence for its claims beyond numerical simulations. Furthermore, it could be argued that more research needs to be done to fully understand the implications of using this method before it can be widely adopted in RTM or other adjoint-state methods.

# Topics for further research:

* Reverse Time Migration Advantages and Disadvantages
* Risks of Local Cross-Correlation Imaging Condition
* Implications of Local Cross-Correlation Imaging Condition
* Comparison of Local Cross-Correlation Imaging Condition to Other Methods
* Evidence for Claims of Local Cross-Correlation Imaging Condition
* Real-World Applications of Local Cross-Correlation Imaging Condition

# Report location:

<https://www.fullpicture.app/item/120d6d1c9843336286adb91c5c13efb6>