# Article information:

Reduction of initial shock in decadal predictions using a new initialization strategy - He - 2017 - Geophysical Research Letters - Wiley Online Library
<https://agupubs.onlinelibrary.wiley.com/doi/10.1002/2017GL074028>

# Article summary:

1. Decadal climate predictions have a significant impact on decision making in various fields.

2. Initialization is a key part of decadal predictions, and initial shock is often introduced by the imbalance between initial conditions and model dynamics.

3. Two general solutions have been devised to alleviate this problem, but both have disadvantages that may affect prediction skill.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article provides an overview of the current state of decadal climate predictions and their associated challenges, particularly with regards to initialization methods and the resulting initial shock. The article presents two general solutions for reducing initial shock, namely bias correction and anomaly initialization, but acknowledges that both have drawbacks which could potentially reduce prediction skill. The article then proposes a new full-field initialization method based on DRP-4DVar with FGOALS-g2 as an alternative solution to reduce initial shock.

The trustworthiness and reliability of the article can be assessed by looking at its potential biases and their sources, one-sided reporting, unsupported claims, missing points of consideration, missing evidence for the claims made, unexplored counterarguments, promotional content, partiality, whether possible risks are noted, not presenting both sides equally etc. In this regard, the article appears to be reliable as it provides a comprehensive overview of decadal climate predictions and their associated challenges while also providing an unbiased assessment of existing solutions for reducing initial shock. Furthermore, it presents a new full-field initialization method as an alternative solution without any promotional content or partiality towards any particular approach or model. The article also notes potential risks associated with each approach while presenting both sides equally in terms of advantages and disadvantages. Thus overall the article appears to be trustworthy and reliable in its assessment of decadal climate predictions and their associated challenges.

# Topics for further research:

* Decadal climate prediction skill
* Initialization methods for decadal climate predictions
* DRP-4DVar initialization
* FGOALS-g2 initialization
* Bias correction for decadal climate predictions
* Anomaly initialization for decadal climate predictions

# Report location:

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