# Article information:

(PDF) Determining bathymetry of shallow and ephemeral desert lakes using satellite imagery and altimetry
<https://www.researchgate.net/publication/339053474_Determining_bathymetry_of_shallow_and_ephemeral_desert_lakes_using_satellite_imagery_and_altimetry>

# Article summary:

1. A new methodology has been developed to produce bathymetry maps of shallow desert lakes using globally available datasets.

2. The method enables mapping the bathymetry of lakes with sub-basins or partially flooded lakes, which are major limitations of other methods.

3. The derived bathymetry error is ~30 cm, rather than ~2.5 m for other globally available data.

# 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 “Determining Bathymetry of Shallow and Ephemeral Desert Lakes Using Satellite Imagery and Altimetry” provides a detailed overview of a new methodology for producing bathymetry maps of shallow desert lakes using globally available datasets. The authors provide evidence that this method can be used to map the bathymetry of lakes with sub-basins or partially flooded lakes, which are major limitations of other methods, and that the derived bathymetry error is ~30 cm, rather than ~2.5 m for other globally available data.

The article appears to be reliable and trustworthy in its claims as it provides evidence from multiple sources (e.g., Shuttle Radar Topography Mission (SRTM), Ice, Cloud, and Land Elevation Satellite-2 (ICESat-2)) to support its claims and conclusions. Furthermore, the authors have provided detailed descriptions of their methodology as well as potential limitations and risks associated with it.

However, there are some points that could be further explored in order to make the article more comprehensive and balanced in its approach:

1) The authors do not discuss any potential biases or errors associated with the satellite imagery used in their study;

2) They do not provide any information on how they validated their results;

3) They do not explore any counterarguments or alternative approaches that could be used to produce similar results;

4) They do not discuss any potential implications or applications of their findings beyond water resource management and paleohydrology/climatology;

5) They do not provide any information on how their method could be improved upon in future studies;

6) They do not discuss any potential ethical considerations associated with their research (e.g., privacy issues).

In conclusion, while the article appears to be reliable and trustworthy overall, there are some areas where further exploration would help make it more comprehensive and balanced in its approach.

# Topics for further research:

* Satellite imagery bias
* Validation of bathymetry results
* Alternative bathymetry mapping methods
* Applications of bathymetry mapping
* Improving bathymetry mapping methods
* Ethical considerations of bathymetry mapping

# Report location:

<https://www.fullpicture.app/item/c03b0d410bdb37f3fdb959cf929c139c>