

# Welcome to delta-statistic website!

We have designed it with user-friendly navigation buttons to help you easily explore its various sections. Let's take a look at how to navigate through the site:

## 1) Home Button:

The "Home" button serves as your gateway to the main page, where you can access all the important features and content.

## 2) Help Button

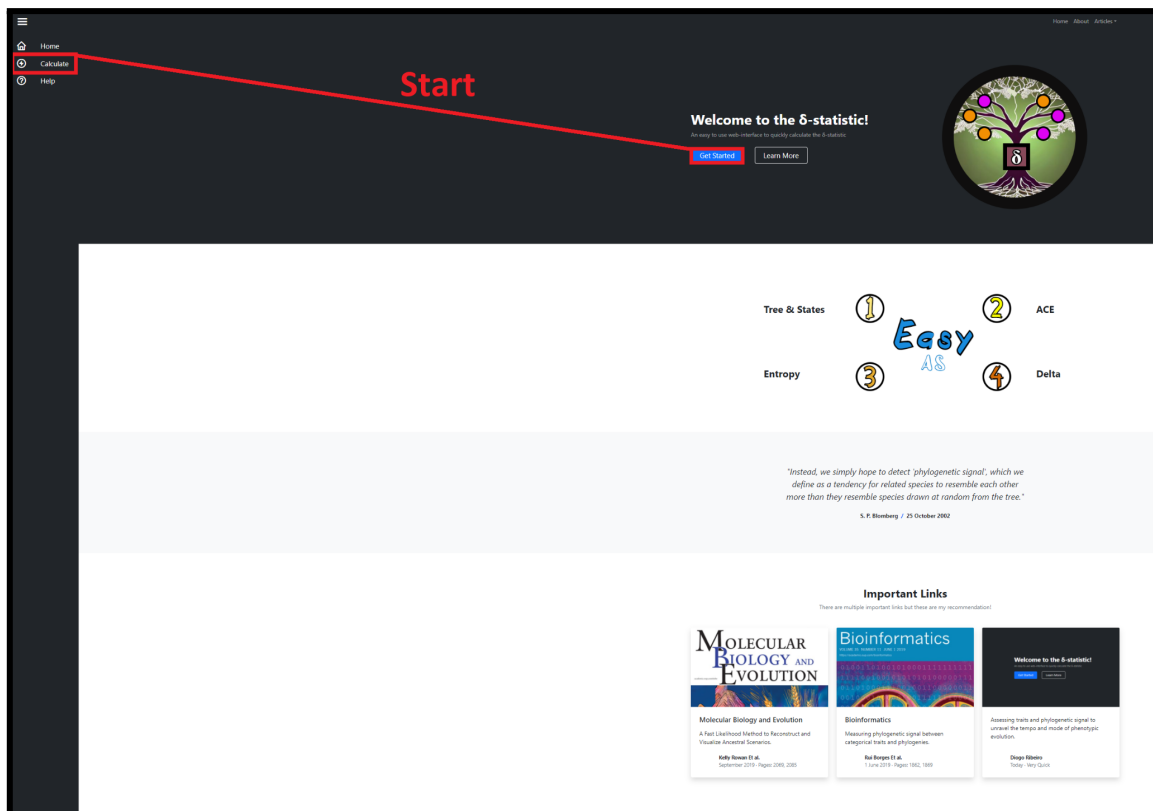
The "Help" button is your go-to resource for documentation and summaries on key concepts related to our website, such as "Phylogenetic Signal", "Evolution Models", "Ancestral Character Estimation", "Entropy" and "Input Files". This section will give you a broader understanding of these concepts and assist you in utilizing our web application more effectively.

## 3) About Button:

The "About" button takes you to a dedicated page that contains information about our web application. This section provides insights into the background and objectives of our platform, helping you to better comprehend its functionality.

## 4) Calculate

To calculate delta, which is the primary purpose of this website, you can simply click on either the "Calculate" or "Get Started" button. These buttons serve as entry points to begin the process.



To calculate the delta, you have two options:

**A) Inputting ancestral states directly**

**B) Performing ancestral character reconstruction using a phylogenetic tree (or multiple) along with their respective leaf states.**

Once you have chosen your preferred method, you can proceed with defining the preferences for the calculation. These parameters allow you to fine-tune the calculation according to specific criteria or requirements.

Finally, to initiate the calculation process, simply click on the "Submit" button. This will trigger the computation based on the provided inputs and preferences, generating the delta results according to your specifications.

The screenshot shows a web interface for calculating delta, with a flowchart overlay indicating the steps and options. The interface is divided into four main sections, each highlighted with a colored box and a numbered icon:

- 1 Prepare Input Files**: This section contains three input fields: "Input Ancestral States Directly: A1", "Phylogenetic Tree(s): B1", and "Multiple Trees Delimiter: B3". There are also "Choose File" buttons for each. An "OR" option is shown between the first and second fields, with "Leaf States: B2" as an alternative input. A note at the bottom states: "If left blank it will consider multiple lines as multiple phylogenetic trees".
- 2 Produce Ancestral Characters**: This section contains a dropdown menu labeled "Use the Input Ancestral States Directly file?" with the option "No, calculate them with the 'Phylogenetic Tree(s)' and 'Leaf States' files". Below this is a button labeled "Ancestral Character Estimation (PastML)".
- 3 Define  $\delta$ -Parameters & Entropy**: This section contains a button labeled "Delta".
- 4 Name & Calculate  $\delta$ -statistic**: This section contains a text input field for "Project Name" (with the example "e.g. Delta\_example") and a "txt | csv" button. Below this is a "Submit" button.

The flowchart overlay on the left side of the interface shows the following steps:

- Add Input Files**: A yellow bracket groups the first section. A line labeled "A" points to the "Input Ancestral States Directly" field. A line labeled "B1 B2" points to the "Phylogenetic Tree(s)" field. A line labeled "B3" points to the "Multiple Trees Delimiter" field.
- Yes... No...**: A yellow bracket groups the second section. A line labeled "Yes..." points to the "Use the Input Ancestral States Directly file?" dropdown. A line labeled "No..." points to the "Ancestral Character Estimation (PastML)" button.
- Can Leave it as is**: A yellow line points to the "Delta" button in the third section.
- Delta Preferences**: An orange bracket groups the third section. A line labeled "Can Leave it as is" points to the "Delta" button.
- Name Preferences**: A red bracket groups the fourth section. A line labeled "Can Leave it as is" points to the "Project Name" input field.
- Finish**: A green arrow points from the "Submit" button to the word "Finish".

After submitting your calculation, you will be redirected to a resulting page where you can view important information regarding the Delta calculation:

1) Parameters Used:

The resulting page will display the specific parameters that were utilized for the Delta calculation.

2) Statistical Measures:

You will find statistical measures calculated from the obtained delta values. These statistics offer insights into the distribution and overall characteristics of the delta values obtained from the calculation.

3) Values per Phylogenetic Tree:

The resulting page will also present the individual delta values for each phylogenetic tree that was used in the calculation. This information allows you to assess the variation and trends in delta values across different tree structures or data sets.

4) Download

To download the values, click on the provided button on the resulting page. This will initiate the download process of a file with the delta values or metadata, in a TXT or CSV format.

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**Metadata**

Result File	Lambda0	Se	Sim	Thin	Burn	Date
test	0.1	0.5	1000	10	100	June 9, 2023

**Results (2)** ⬆

Mean: 4.385001913048722 Median: 4.385001913048722 Min: 4.348961451015874 Max: 4.421042375081571

Result Delta-values	$\delta$ -statistic	Trees Used
	4.421042375081571	Phylogeny
	4.348961451015874	Phylogeny

Download ⬇

Download Values or Metadata