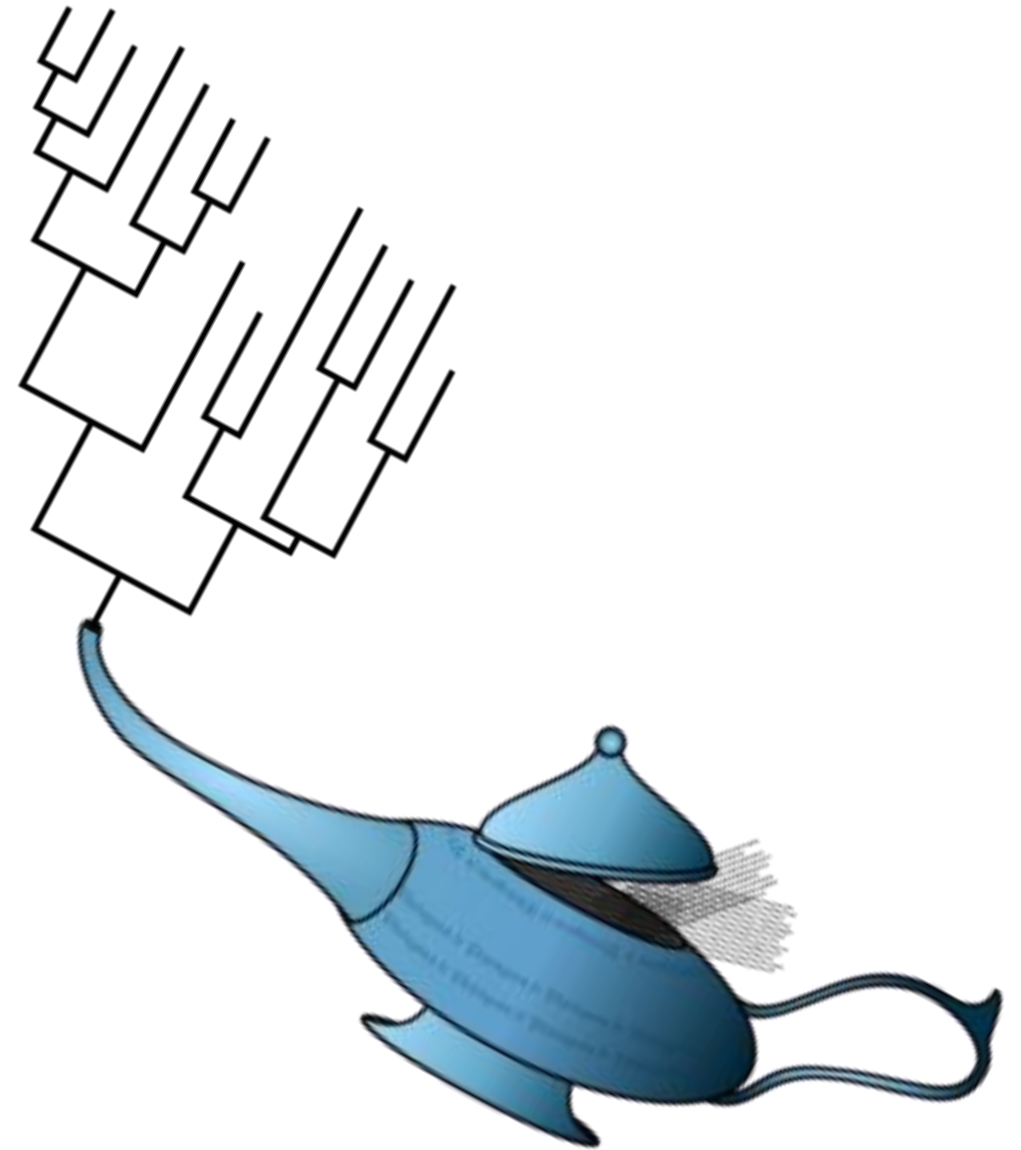


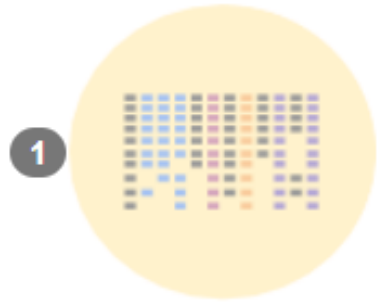
Building phylogenetic tree

Summer School:

„from fungal morphology to genotype”



General pipeline



Multiple Alignment

- MAFFT
- MUSCLE
- Clustal Omega



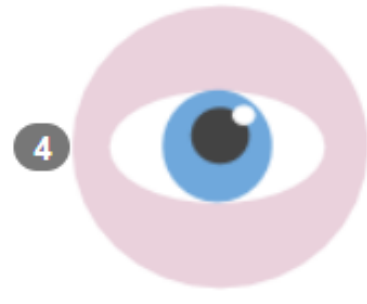
Alignment Curation

- BMGE
- Gblocks
- Noisy
- trimAl



Tree Inference

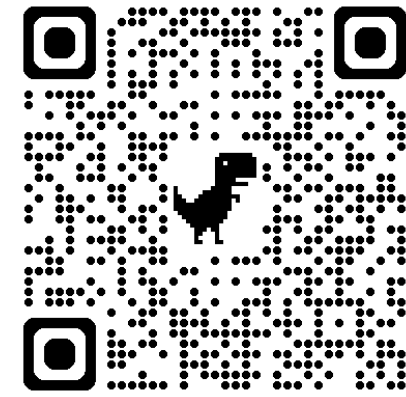
- FastME
- TNT
- PhyML+SMS
- PhyML
- FastTree
- MrBayes



Tree Rendering

- Newick Display

Automatic tool: <https://ngphylogeny.fr/>



The screenshot shows the homepage of NGPhylogeny.fr. At the top, there is a navigation bar with links for Home, Phylogeny Analysis, Tools, Workspace (with a '0' indicator), Documentation, and About. Below the navigation bar is a large banner featuring a colorful phylogenetic tree. A white text box in the center of the banner contains the text: "Robust phylogenetic analysis for everyone." followed by a description: "Free, simple to use web service dedicated to reconstructing and analysing phylogenetic relationships between molecular sequences." and a green button that says "Let's GO ! with One Click Workflow". To the right of the text box is an illustration of a blue genie lamp with a small tree emerging from it.



› One Click

Fully automatic workflow

Default tools + **default** parameters.



› Advanced

Semi automatic workflow

Default tools + **custom** parameters



› A la Carte

Custom workflow

Custom tools + **Custom** parameters.

➤ One Click Workflows

Select your workflow

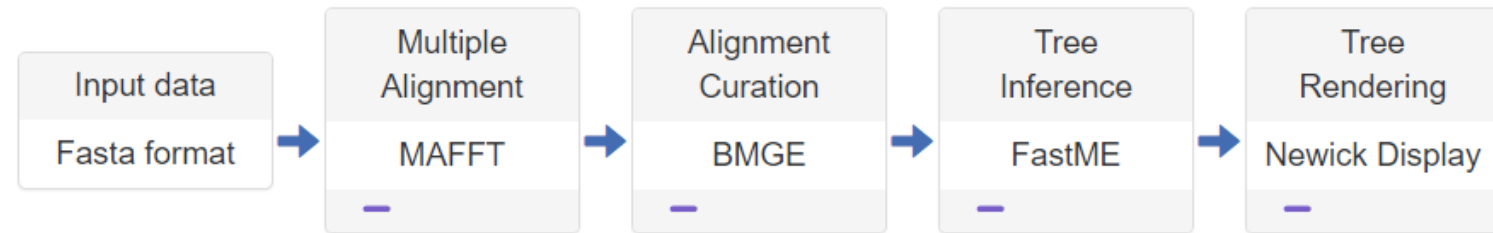
FastME/OneClick

PhyML/OneClick

PhyML+SMS/OneClick

FastTree/OneClick

Workflow skeleton



Choose input data

Input Data (Fasta format with more than 3 sequences)

Input file

Choose file To Upload

Choose File

Pasted text

⚙️ FastME/OneClick

⚙️ PhyML/OneClick

⚙️ PhyML+SMS/OneClick

⚙️ FastTree/OneClick



Choose input data

Input Data (Fasta format with more than 3 sequences)

Input file

1 files were chosen

Choose File



Pluteus_test_tree.txt

size: 6.50 KB type: txt



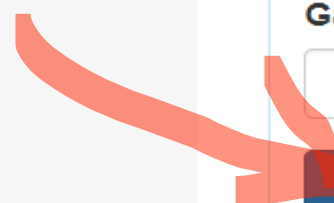
Pasted text

Blast run*

Galaxyfile*

Submit

? Example

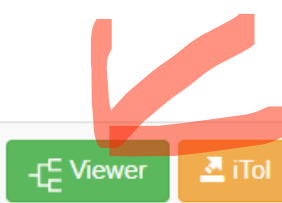


History

[Refresh](#)[Reuse](#)

| | | |
|--------|---|--|
| Url | ngphylogeny.fr/workspace/history/3555895aec5a0983 | |
| Name | NGPhylogeny Analyse - FastME/OneClick | |
| e-mail | | |

| Tool | Step | File Name | Status | |
|----------------|------|---|--------|-------|
| Newick Display | 15. | All tree images | ✓ | .tar |
| | 14. | Tree image | ✓ | .svg |
| FastME | 13. | Mapping between short sequence id and names (useful to interpret some bootstrap log files if any) | ✓ | .txt |
| | 12. | Output Tree | ✓ | .nhx |
| | 11. | FastME Distance matrix | ✓ | .txt |
| | 10. | FastME Information | ✓ | .txt |
| | 9. | BMGE Cleaned sequences Html | ✓ | .html |





PRESTO - Phylogenetic tReE viSualisaTiOn -


Tree Layout

- Phylogram
 - Dendrogram
- Linear
 - Radial
 - Slanted

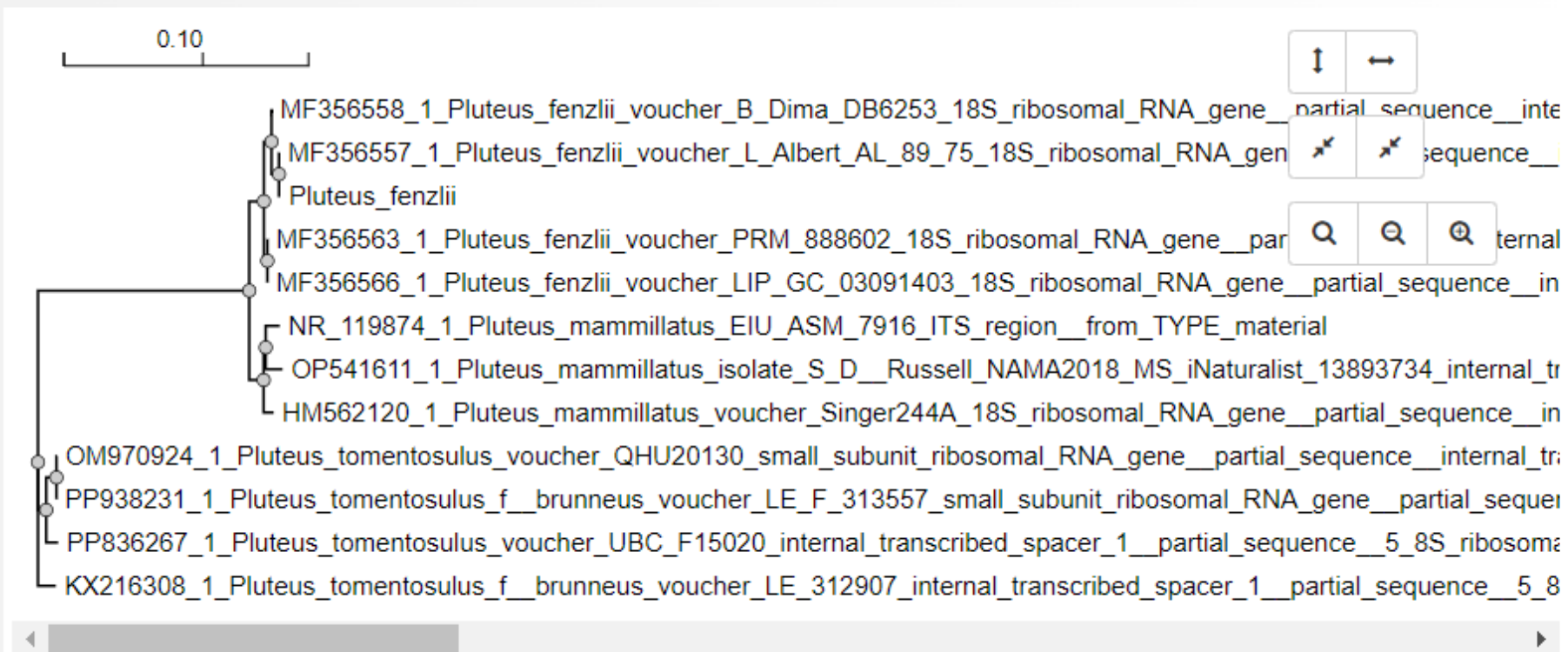
Tree ordering

 Increasing ladderizing

 decreasing ladderizing

 Retrieve original order

Tree settings



Multiple Sequence Alignment Viewer - the MSAViewer - a BioJS component.

Import Sorting Filter Selection **Vis.elements** Color scheme Extras Export Help

| ID | Label | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|---------------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Pluteus fenzi | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | T | C | A | C | C | T | C | G | G | T | G | G | C | A | T | G | T | G | C | A |
| 2 | MF356557.1 | A | C | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | T | C | A | C | C | T | C | G | G | T |
| 3 | MF356558.1 | A | C | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | T | C | A | C | C | T | C | G | G | T |
| 4 | MF356566.1 | A | C | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | T | C | A | C | C | T | C | G | G | T |
| 5 | MF356563.1 | A | C | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | T | C | A | C | C | T | C | G | G | T |
| 6 | HM562120.1 | A | A | G | G | T | T | T | C | C | G | T | A | G | G | T | G | A | A | C | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G |
| 7 | NR_119874.1 | A | A | A | G | T | C | G | T | A | A | C | A | A | G | G | T | T | C | C | G | T | A | G | G | T | G | A | A | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | |
| 8 | OP541611.1 | A | G | G | T | G | A | C | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | T | C | A | C | C |
| 9 | PP938231.1 | A | A | G | G | T | T | T | C | C | G | T | A | G | G | T | G | A | A | C | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G |
| 10 | PP836267.1 | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | C | C | A | C | C | T | C | G | G | T | G | G | T | A | T | G | T | G | C | A | C | A | C |
| 11 | OM970924.1 | T | G | G | A | A | G | T | A | A | A | A | G | T | C | G | T | A | A | C | A | A | G | G | T | T | T | C | C | G | T | A | G | G | T | G | A | A | C | T | G | C | G | G | A | A | G | G | A | T | C | A | T | T | A | G | T | G | |
| 12 | KX216308.1 | T | A | G | T | G | A | C | C | T | G | C | G | G | A | G | G | A | T | C | A | T | T | A | G | T | G | A | A | T | A | A | A | C | T | T | G | T | G | T | G | A | G | T | T | G | T | T | G | C | T | G | G | C | A | A | C | C | T |

