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Assisted Selection of Biomarkers by Linear Discriminant analysis Effect Size (LEfSe) in Microbiome Data

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TITLE:

Assisted Selection of Biomarkers by Linear Discriminant Analysis Effect Size (LEfSe) in Microbiome Data

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KEYWORDS:

LEfSe; Biomarker; Genome; Biodiversity; Statistic difference; Biological correlation

SUMMARY:

LEfSe (LDA Effect Size) is a tool for high-dimensional biomarker mining to identify genomic features (such as genes, pathways, and taxonomies) that significantly characterize two or more groups in microbiome data.

ABSTRACT:

There is growing attention toward closed biological genomes in the environment and in health. To explore and reveal the intergroup differences among different samples or environments, it is crucial to discover biomarkers with statistical differences among groups. The application of Linear discriminant analysis Effect Size (LEfSe) can help find good biomarkers. Based on the original genome data, quality control, and quantification of different sequences based on taxa or genes are carried out. First, the Kruskal-Wallis rank test was used to distinguish between specific differences among statistical and biological groups. Then, the Wilcoxon rank test was performed between the two groups obtained in the previous step to assess whether the differences were consistent. Finally, a linear discriminant analysis (LDA) was conducted to evaluate the influence of biomarkers on significantly different groups based on LDA scores. To sum up, LEfSe provided the convenience for identifying genomic biomarkers that characterize statistical differences among biological groups.

INTRODUCTION:

Biomarkers are biological characteristics that can be measured and can indicate some phenomena such as infection, disease, or environment. Among them, functional biomarkers may

be specific biological functions of single species or common to some species, such as gene, protein, metabolite and pathways. Besides, taxonomic biomarkers indicate an unusual species, a group of organisms (kingdom, phylum, class, order, family, genus, species), the Amplicon Sequence Varient (ASV)[1], or the Operational Taxonomic Unit (OTU)[2]. In order to find biomarkers more quickly and accurately, a tool for analyzing the biological data is necessary. The differences between classes can be explained by LEfSe coupled with standard tests for statistical significance and additional tests encoding biological consistency and effect relevance[3]. LEfSe is available as a galaxy module, a conda formula, a docker image, and included in bioBakery (VM and cloud)[4]. Generally, the analysis of microbial diversity often uses a non-parametric test for the uncertain distribution of a sample community. The rank sum test is a non-parametric test method, which uses the rank of samples to replace the value of samples. According to the difference of sample groups, it can be divided into two samples with the Wilcoxon rank sum test and into multiple samples with the Kruskal-Wallis test[5,6]. Notably, when there are significant differences among multiple groups of samples, a rank-sum test of pairwise comparison of multiple samples should be performed. LDA (which stands for Linear Discriminant Analysis) invented by Ronald Fisher in 1936, is a type of supervised learning, also known as Fisher's Linear Discriminant[7]. It is a classic and popular algorithm in the current field of machine learning data mining.

Here, the LEfSe assay has been optimized by Conda and Galaxy servers. Three groups of 16S rRNA gene sequences are analyzed to demonstrate the significant differences between different groups with LDA scores of microbial communities and visualization results.

PROTOCOL:

NOTE: The protocol was sourced and modified from the research of Segata et al.[3]. The method is provided at https://bitbucket.org/biobakery/biobakery/wiki/lefse.

1. Preparation of input file for analysis

1.1. Prepare the input file (**Table 1**) of LEfSe, which could be easily generated by many workflows[8] or previous protocols[9] with the original files (sample file and corresponding species annotation file).

2. LEfSe native analysis (limited to the Linux server)

2.1. LEfSe Installation

NOTE: The LEfSe pipeline is recommended to be installed with Conda[10].

2.1.1. Run the following commands to exclude the possibility of dependencies conflict. Create a conda environment for LEfSe (This step is recommended but not required.). -n stands for the environment name.

$ conda create -n LEfSe-env

2.1.2. To activate the LEfSe environment that was created, run:

$ source activate LEfSe-env

2.1.3. To install LEfSe with channel bioBakery where -c stands for channel name, run:

$ conda install -c biobakery lefse

2.2. Format data for LEfSe

2.2.1. Run the following command to format the original file to the internal format for LEfSe. Table.txt is the input file and Table-reformat.in is the output file. -c is used to set the feature, which is used as class (default 1) and -o is used to set the normalization value (default -1.0 meaning no normalization).

$ format_input.py Table.txt Table-reformat.in -c 1 -o 1000000

2.3. Calculation of linear discriminant analysis (LDA) effect size

2.3.1. Run the following command. The purpose of this step is to perform LDA of the previous result and generate the result file for the visualization. Table-reformat.in is generated using the previous step and is used as the input file in this step. Table-reformat.res is the result file.

$ run_lefse.py Table-reformat.in Table-reformat.res

2.4. Visualization by plots

2.4.1. Plot the LEfSe results. To plot the effect size of the biomarkers in a pdf file,.Table-reformat.res is generated using the previous step and the LDA.pdf is the plot file. –format is used to set the output file format.

$ plot_res.py Table-reformat.res LDA.pdf --format pdf

2.4.2. Plot the cladogram. To draw the species tree and display the biomarkers in a cladogram. cladogram.pdf is the output file.

$ plot_cladogram.py Table-reformat.res cladogram.pdf --format pdf

2.4.3. **Plot one feature (optional)** To plot the differences of a single biomarker among different groups. -f is used to set the features of plot. If one was set, the –feature_name must be given.

$ plot_features.py -f one --feature_name "k__Bacteria.p__Firmicutes.c__Bacilli.o__Bacillales" --format pdf Table-reformat.in Table-reformat.res Bacillales.pdf

2.4.4. Plot the differential features (optional) to draw all the features, but there is too much to be done with caution. --archive is used to choose whether to compress the results. ./ means the path of the results.

$ plot_features.py -f diff --archive none --format pdf Table-reformat.in Table-reformat.res ./

3. LEfSe online analysis (galaxy)

3.1. Go to the huttenhower galaxy server[11]: http://huttenhower.sph.harvard.edu/galaxy.

3.2. Upload the files. Press the **Up** arrow button on the left pane and upload the file. Click on **Choose local file** to select the input file and select the format **tabular**, and then click on the **Start** button.

NOTE: Referred to the webpage (https://bitbucket.org/biobakery/biobakery/wiki/lefse), use the script (taxonomy_summary.R) to generate the input file of LEfSe, and the format (each column with a group name, each line with a different level of annotation separated by "|") is required as shown in **Table 1**. A schematic overview of the uploading process is shown in **Figure 1**.

3.3. Format the data for LEfSe. Click on the **LEfSe | Format Data for LEfSe** link on the left pane, and select the specific rows for class in the file, and click on the **Execute** button. A schematic overview of the operational process and the parameters used are shown in **Figure 2**.

3.4. Calculate the LDA effect size. Click on the **LEfSe | LDA Effect Size (LEfSe)** link on the left pane, and select parameter values according to the analysis requirements. Click on **Execute**. A schematic overview of the operational process and the parameters used are shown in **Figure 3**.

3.5. Plot the LEfSe results. Click on the **LEfSe | Plot LEfSe Results** link on the left pane, and click on the **Execute** button. A schematic overview of the operational process and the parameters used are shown in **Figure 4**.

3.6. Plot the cladogram. Click on **Plot Cladogram** on the left pane, and click on the **Execute** button after selecting the parameter values. A schematic overview of the operational process and the parameters used are shown in **Figure 5**.

3.7. Plot one feature by clicking on **Plot One Feature** on the left pane, and clicking on the **Execute** button after selecting parameter values. A schematic overview of the operational process and the parameters used are shown in **Figure 6**.

3.8. Plot differential features by clicking on **Plot Differential Features** on the left pane, and clcking on the **Execute** button after selecting parameter values. A schematic overview of the operational process and the parameters used are shown in **Figure 7**.

NOTE: These generated figures can be visualized and downloaded against the resulting output in the right pane.

REPRESENTATIVE RESULTS:

The LDA scores of microbial communities with significant differences in each group by analyzing the 16S rRNA gene sequences of three samples is shown in **Figure 8**. The color of the histogram represents different groups, while the length represents the LDA score, which is the influence of the species with significant differences between different groups. The histogram shows the species with significant differences whose LDA score is greater than the preset value. The default

preset value is 2.0, so only absolute values of LDA score (abscissa) greater than 2.0 are shown in the plot.

The biomarkers with significant difference and species tree between different classification levels are shown in **Figure 9**. The circles radiating from the inside to the outside represent the classification levels from phylum to genus (the innermost yellow circle is the kingdom). The diameter of each small circle at the different classification levels represents the size of relative abundance. The species with no significant difference are uniformly colored yellow, and the significantly different species biomarkers are colored with the corresponding groups. The classes A, B, and C are the group names of microbial samples collected. Red nodes represent the microbial groups that play an important role in the red group (A); green nodes represent the microbial groups that play an important role in the green group (B); and blue nodes represent the microbial groups that play an important role in the blue group (C). The corresponding species name of the biomarkers not shown in the plot are shown on the right side, and the letter numbers correspond to that in the plot (only showing differential species from the phylum to the family by default for aesthetic purposes).

The abundance of one biomarker that has differences among different groups according to the LEfSe results is shown in **Figure 10**. In the relative abundance barplot, the solid line represents the average relative abundance, the dotted line represents the median relative abundance, and each column represents the relative abundance of each sample in different groups.

FIGURE AND TABLE LEGENDS:

Table 1: The example file for LEfSe analysis online.

Figure 1: Schematic overview of the uploading process. Click on the red numbers in sequential order on the figure.

Figure 2: Schematic overview of the operational process for changing data format. Click on the red numbers in sequential order on the figure.

Figure 3: Schematic overview of the operational process for calculating LDA effect size. Click on the red numbers in sequential order on the figure.

Figure 4: Schematic overview of the operational process for plotting LEfSe results. Click on the red numbers in sequential order on the figure.

Figure 5: Schematic overview of the operational process for plotting cladogram. Click on the red numbers in sequential order on the figure.

Figure 6: Schematic overview of the operational process for plotting one feature. Click on the red numbers in sequential order on the figure.

Figure 7: Schematic overview of the operational process for plotting differential features. Click on the red numbers in sequential order on the figure.

Figure 8: Histogram of the distribution of LDA values. LDA scores of microbial communities with significant differences in each group were analyzed by LDA Effect Size according to their influences and correlations.

Figure 9: Cladogram. The typical plot of the cladogram obtained by the protocol, which enables the representation of the difference between different classification levels of three groups.

Figure 10: One feature plot. The abundance barplot of one biomarker that has differences among different groups according to the LEfSe results.is shown.

DISCUSSION:

Here, the protocol for the identification and characterization of biomarkers within different groups is described. This protocol can easily be adapted for other sample types, such as OTUs of microorganisms. The statistical method by LEfSe can find the characteristic microorganisms in each group (default is LDA >2), that is, the microorganisms that are more abundant in this group relative to the others[12]. LEfSe is available in both native and web Linux versions where users can also perform LEfSe analysis on web pages. LEfSe is based on the LDA algorithm and needs a species level to draw a species tree. By application of the tool, the relative abundance between groups can be compared. All differential biomarkers could be plotted in a single graph. Also, a single biomarker or all biomarkers can be plotted in batches.

Whether LEfSe is performed through the native server or an online site, there are a lot of tunable parameters to draw the required pictures. Due to the complex structure of input files and the need to convert them to preferred data formats for further analyses of LEfSe, some one-stop services have also been developed. Therefore, the optimization of easier operations can be challenging. On the other hand, there are a few limitations when analyzing complex data using LEfSe. LDA projects a feature that is one dimension less than the category, and if more features are needed, other methods are introduced. The variants of LDA may solve some difficulties. For example, Kernel LDA is a solution if the original data cannot be separated well after projection. Because the amount of computation of LDA is related to the dimension of data, 2DLDA can greatly reduce the amount of computation of LDA. Both LDA and PCA are commonly used dimensionality reduction techniques. PCA (Principal Component Analysisis) dimensionality reduction is directly related to the data dimension, and the projected coordinate system is orthogonal. However, LDA focuses on the ability of classification according to the labeling of categories, so the projected coordinate system is generally not orthogonal.

LEfSe provides assistance for the selection of biomarkers. With many advantages (e.g., adjustable parameters, the detailed results of various parts, application between two or more groups), it has been widely used[13]. With increasing demand for high-dimensional data analysis, the application of this method will become more and more extensive to explore the biomarkers of the features (organisms, clades, operational taxonomic units, genes, or functions) impacting on

human health and disease.

ACKNOWLEDGMENTS:

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DISCLOSURES:

The authors have nothing to disclose.

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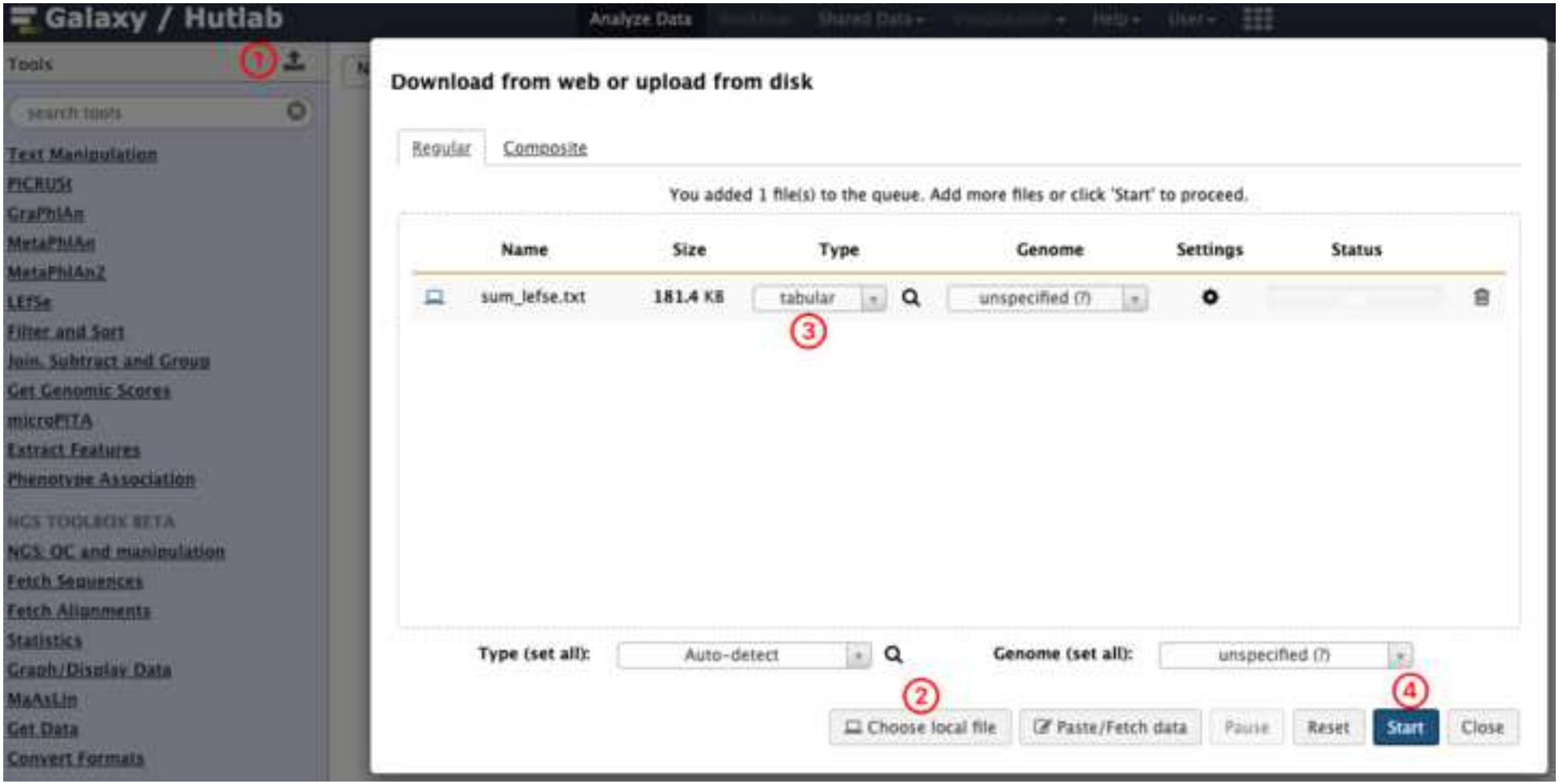
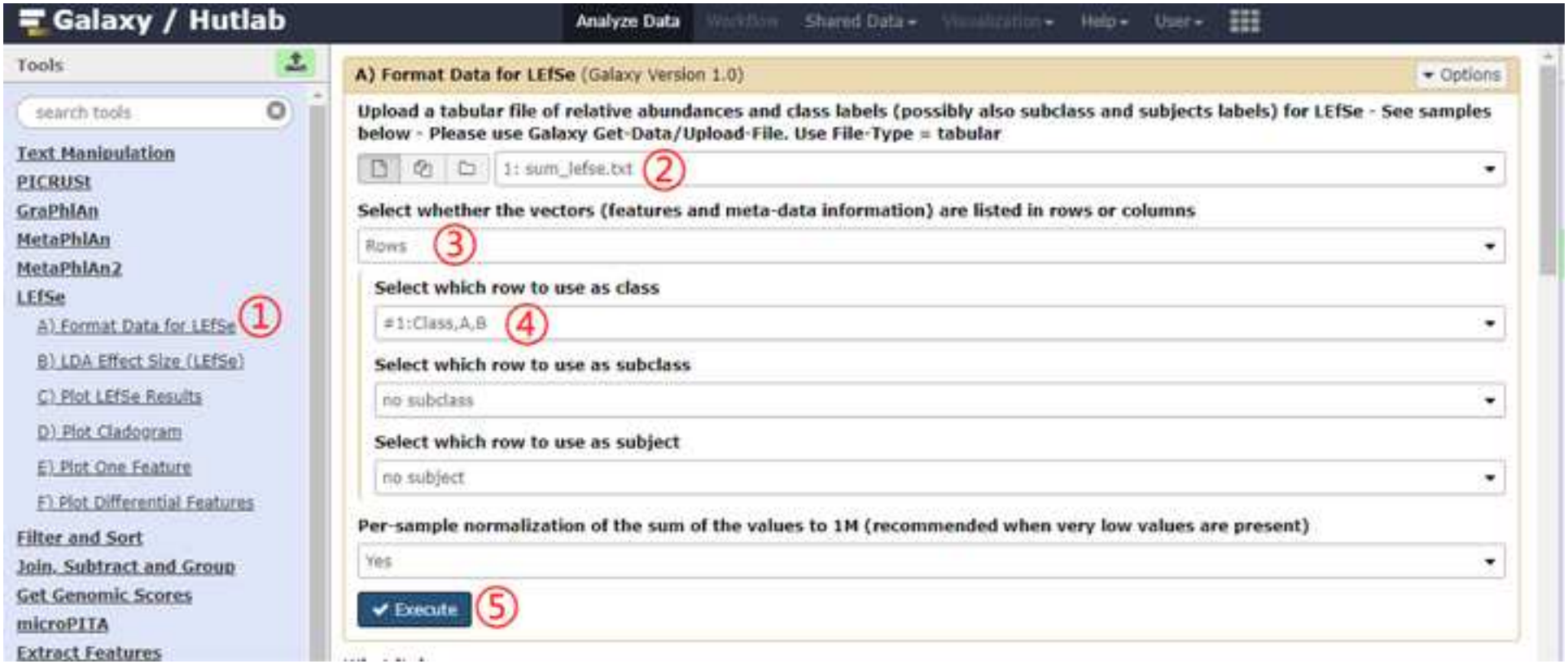
Revised Figure 1

Click here to access/download;Figure;Revised Figure 1.tif





Revised Figure 3

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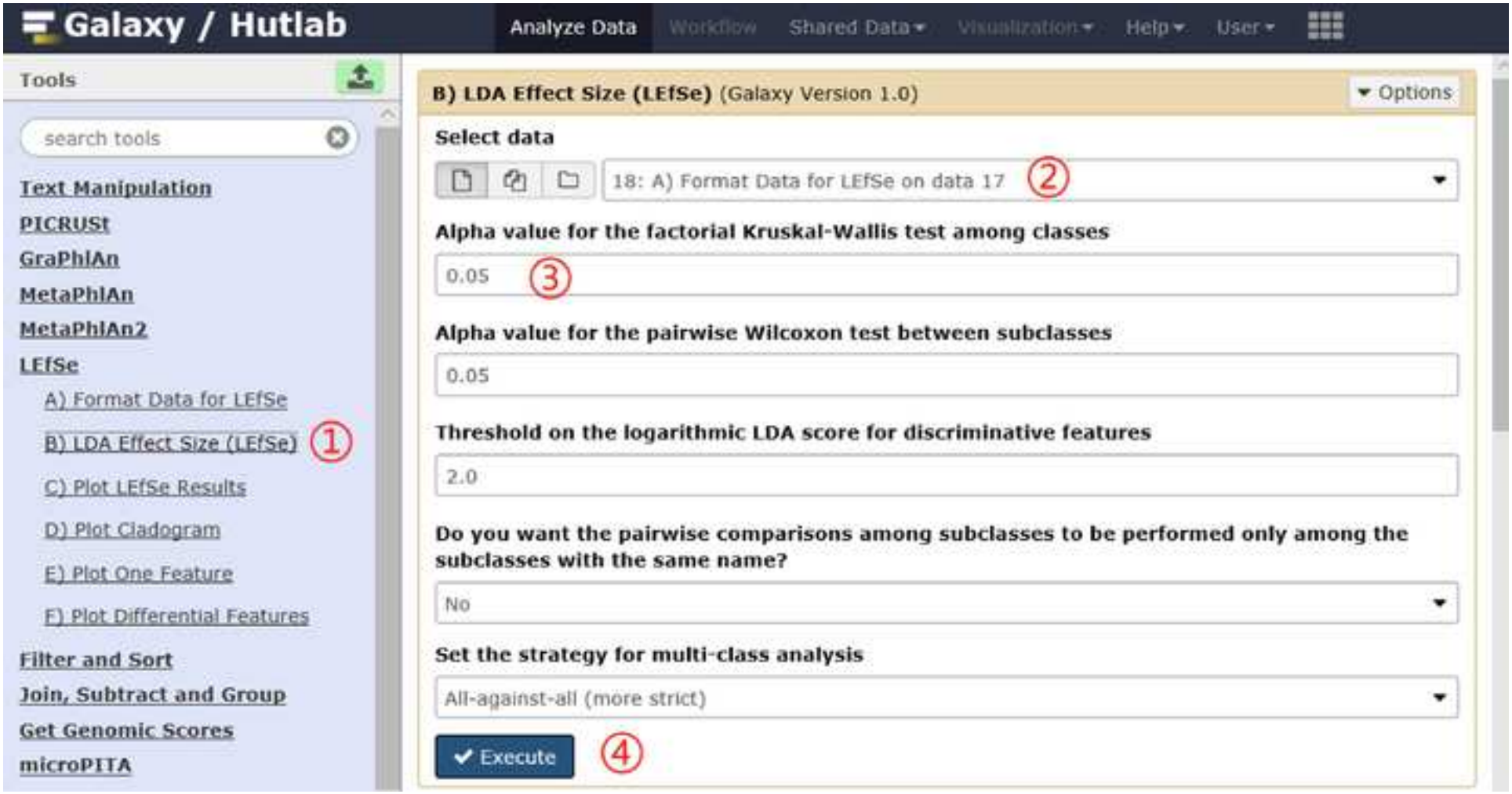

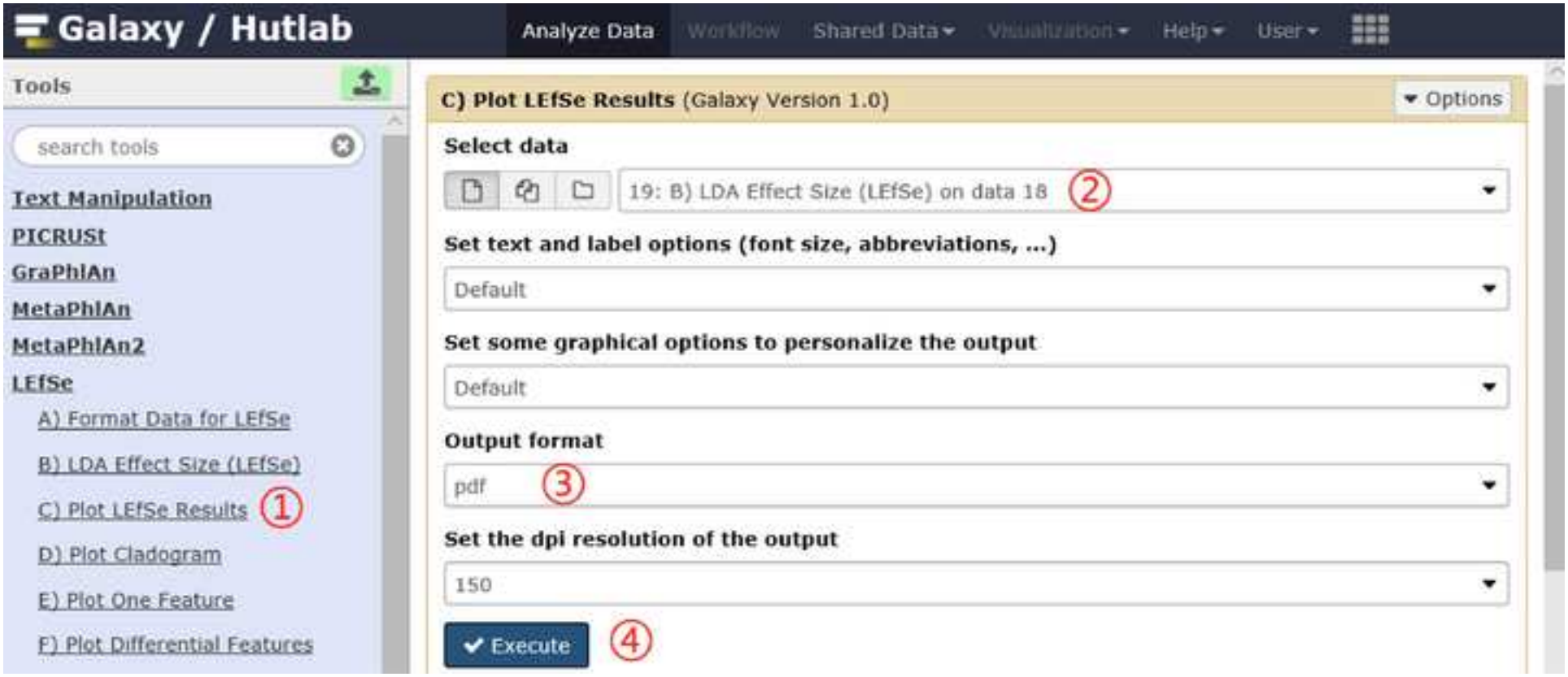

Revised Figure 5

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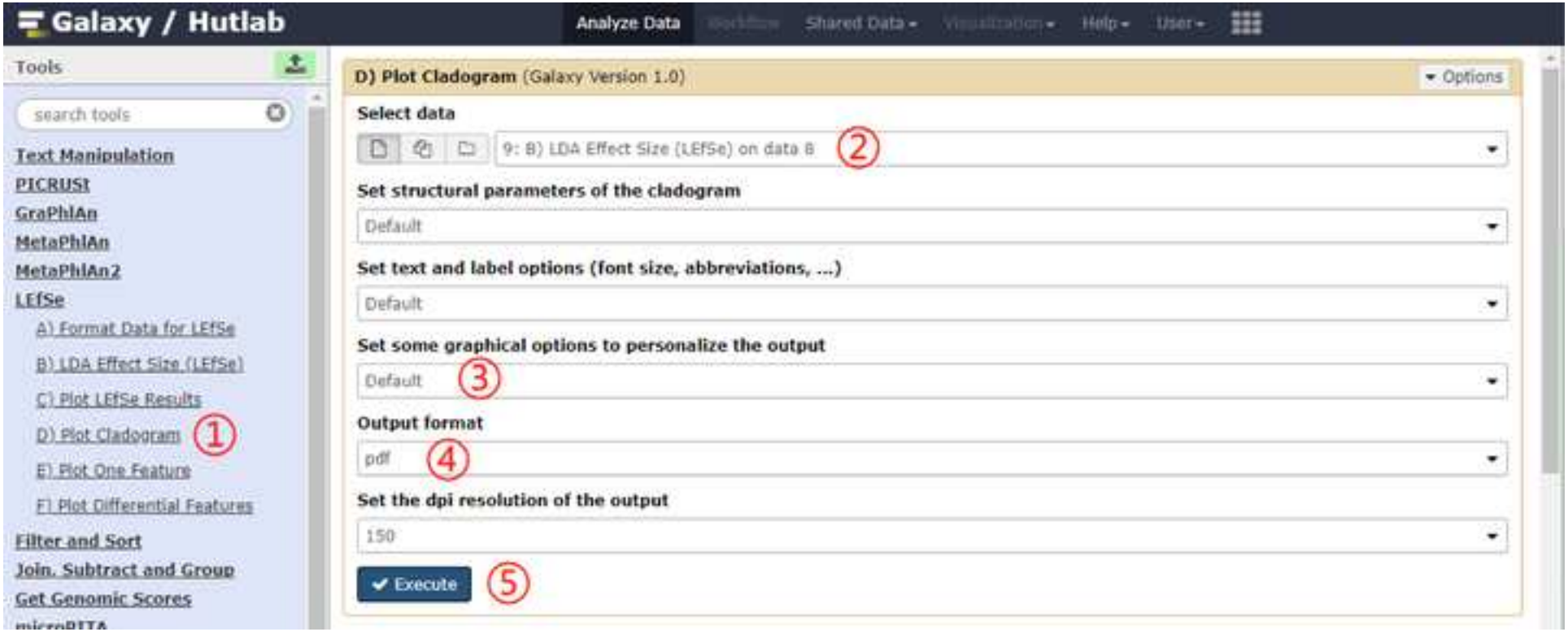

Revised Figure 6

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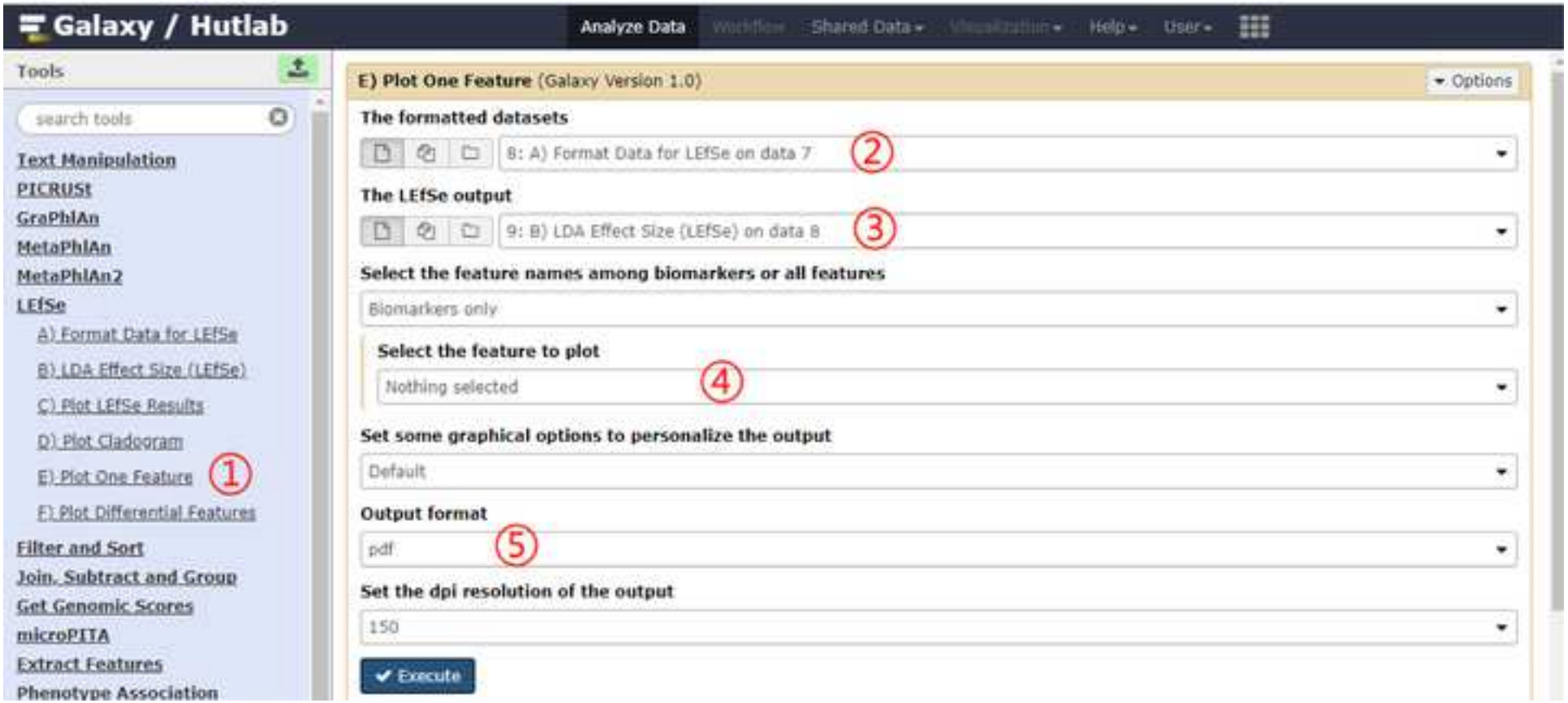

Revised Figure 7

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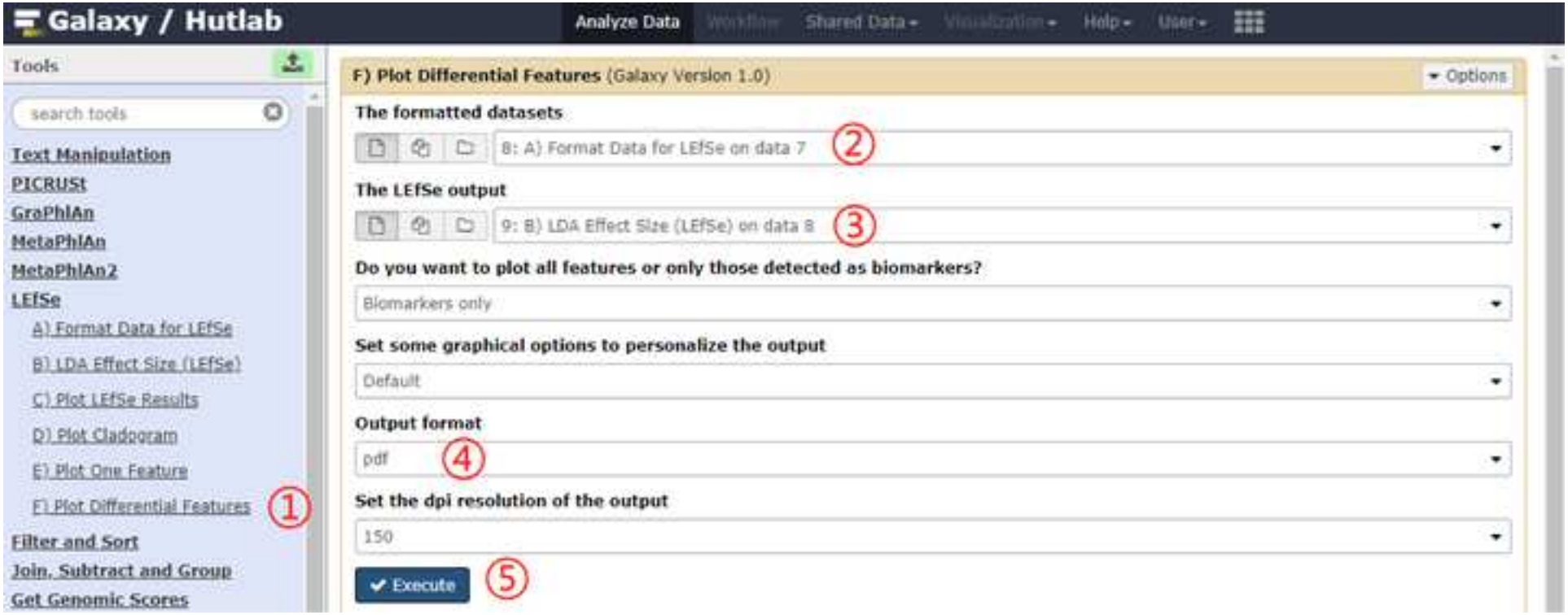

Revised Figure 8

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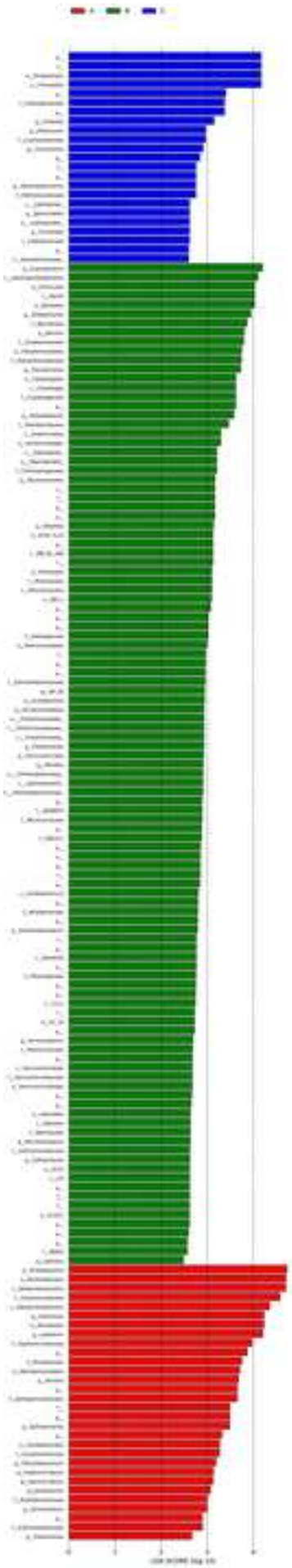
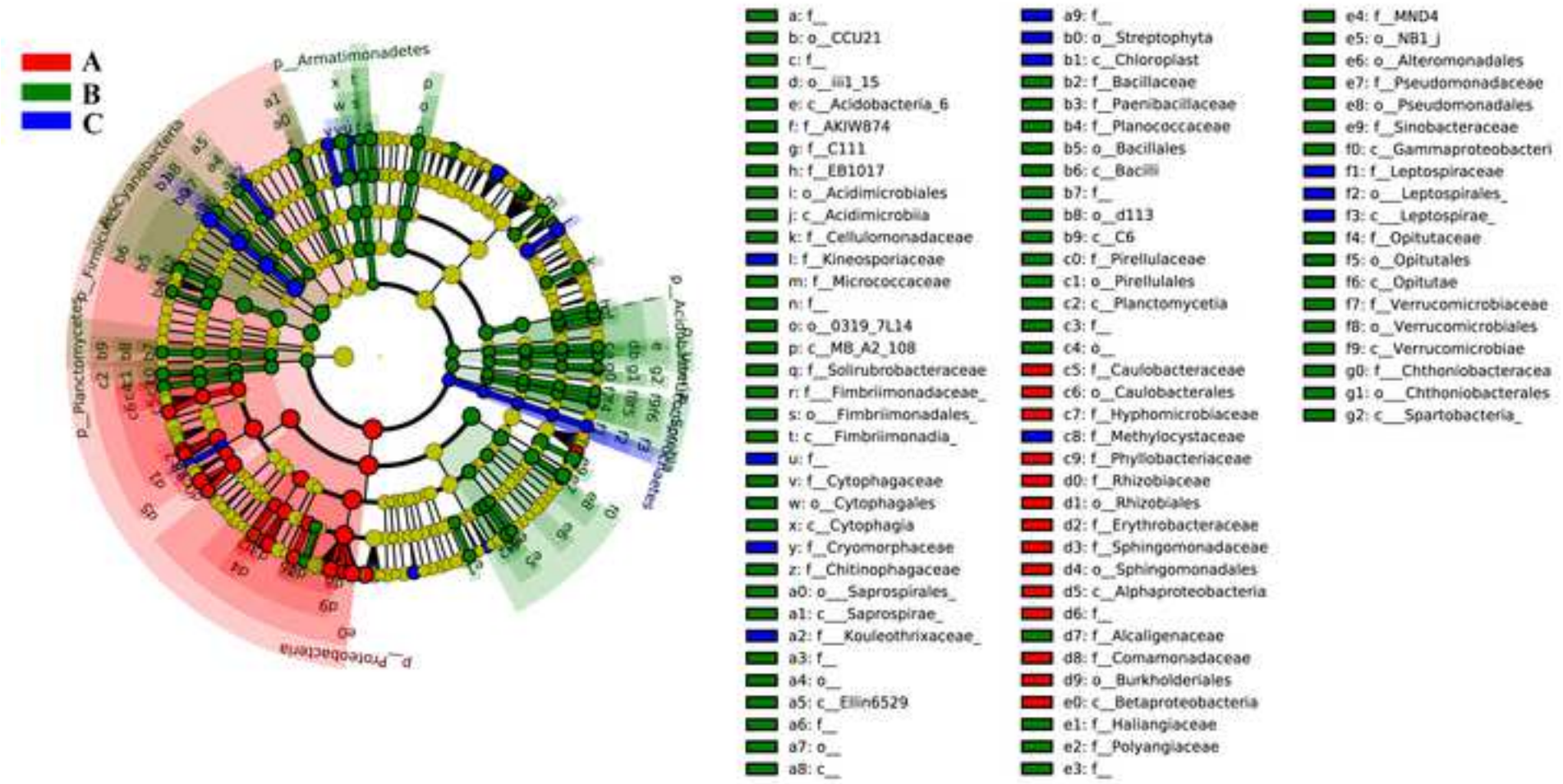


Revised Figure 9

Click here to access/download;Figure;Revised Figure 9.tif



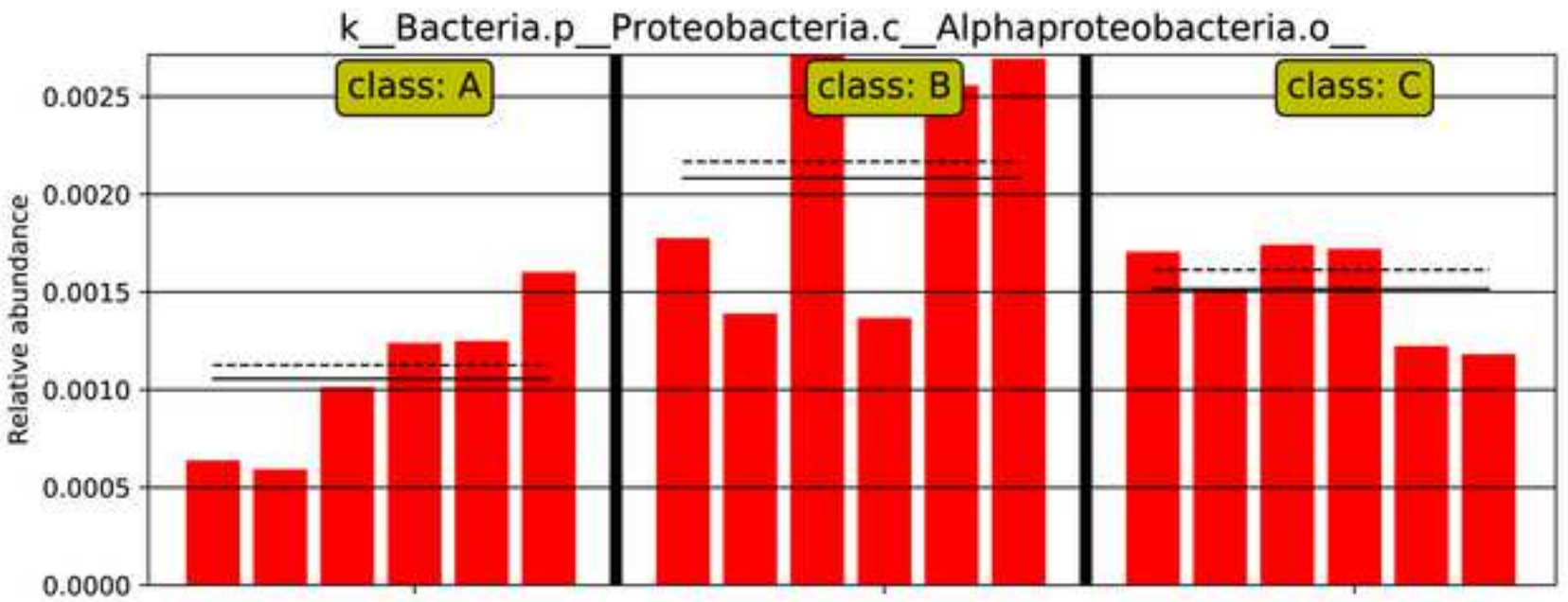


Table of Materials

Click here to access/download;Table of Materials;Table_of_Materials.xlsx

Name of Material/Equipment	Company	Catalog Number	Comments/Description

Authors' Responses to Reviewers' Comments

Manuscript ID: JoVE61715

Title: Assisted Selection of Biomarkers by Linear Discriminant analysis Effect Size (LEfSe) in Microbiome Data

Authors: Fang Chang, Shishi He and Chenyuan Dang

Corresponding authors: Chenyuan Dang

Note: We would like to thank reviewers for their valuable comments and suggestions, which have helped us to improve our manuscript. Below we include the reviewers' comments point-by-point and addressed them, providing a detailed description of how and why we have modified the manuscript as a result of the comments made. Page and line numbers in the responses refer to those in the revised version of the manuscript unless indicated otherwise. All revisions are marked by Red font in the change-marked version of revised manuscript.

Editorial Comments:

Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammatical errors.

Reply: Thank you for the kind valuable comments. We have carefully proofread the manuscript and correct some errors and revise some figure number, reference label, etc.

Protocol Language: Please use complete sentences for all level 2 steps in the protocol (e.g., 2.2 LDA effect size).

Reply: Thank you for the kind valuable comments. We have made some changes.

Change: Change **"**2.2 LDA effect size" to "2.3 Calculation of linear discriminant analysis (LDA) effect size". Change **"**3.4 LDA effect size" to "3.4 Calculation of LDA effect size".

Protocol Detail: Please note that your protocol will be used to generate the script for the video, and must contain everything that you would like shown in the video. Please ensure that all specific details (e.g. button clicks for software actions, numerical values for settings, etc) have been added to your protocol steps. There should be enough detail in each step to supplement the actions seen in the video so that viewers can easily replicate the protocol.

1) Since most of your steps involve running of scripts, it will be beneficial if you provide screenshots for each step. These can be uploaded as supplementary files.

Reply: We have added some detailed description for each step to help the protocol can be replicated.

Protocol Numbering: Please add a one-line space after each protocol step.

Reply: Thank you for the kind valuable comments. We have made some modification in the revised manuscript.

Discussion: JoVE articles are focused on the methods and the protocol, thus the discussion should be similarly focused. Please ensure that the discussion covers the following in detail and in paragraph form (3-6 paragraphs): 1) modifications and troubleshooting, 2) limitations of the technique, 3) significance with respect to existing methods, 4) future applications and 5) critical steps within the protocol.

Reply: Thanks. With the help of following comments of Reviewer #1, we have added some discussion about the limitations of the technique and significance with respect to existing methods, which improved the content of the discussion in the protocol.

Figure/Table Legends: Figure/Table Legends: Please do not use common legends for multiple figures. Please describe specifically what is shown in each individual figure.

Reply: Agree. Thank you for the valuable comment. We have made some changes.

Change: Change “Figure 2: Schematic overview of operational process. Orderly click on the select by the red numbers with the size from small to large on the figure.” to

"Figure 2: Schematic overview of operational process for changing data format. Orderly click on the select by the red numbers with the size from small to large on the figure." Change "Figure 3: Schematic overview of operational process. Orderly click on the select by the red numbers with the size from small to large on the figure." to "Figure 3: Schematic overview of operational process for calculating LDA effect size. Orderly click on the select by the red numbers with the size from small to large on the figure." Change "Figure 4: Schematic overview of operational process. Orderly click on the select by the red numbers with the size from small to large on the figure." to "Figure 4: Schematic overview of operational process for plotting LEfSe results. Orderly click on the select by the red numbers with the size from small to large on the figure." Change "Figure 5: Schematic overview of operational process. Orderly click on the select by the red numbers with the size from small to large on the figure." to "Figure 5: Schematic overview of operational process for plotting cladogram. Orderly click on the select by the red numbers with the size from small to large on the figure." Change "Figure 6: Schematic overview of operational process. Orderly click on the select by the red numbers with the size from small to large on the figure." to "Figure 6: Schematic overview of operational process for plotting one feature. Orderly click on the select by the red numbers with the size from small to large on the figure." Change "Figure 7: Schematic overview of operational process. Orderly click on the select by the red numbers with the size from small to large on the figure." to "Figure 7: Schematic overview of operational process for plotting differential Features. Orderly click on the select by the red numbers with the size from small to large on the figure." (Page 4-5, Line 167-178).

References: Move all hyperlinks to the reference list (e.g., line 52)

Reply: Thank you for the comments.

Change: Move the hyperlinks to reference list. (Page 2, Line 52; Page 3, Line 104).

Table of Materials:1) Please revise the table. The table should include the name,

company, and catalog number of all relevant materials/software in separate columns in an xls/xlsx file. Please include items such as all software and equipment. 2) Please sort in alphabetical order.

Reply: Thank you for the comments. We have revised the table named 'Table.xlsx'.

Reviewer #1

Manuscript Summary:

Reviewer #1: In this manuscript, Chang et al., describe the application of Linear Discriminant analysis Effect Size (LEfSe) for metagenomic biomarker discovery. This method integrates class comparison, tests of biological consistency and the estimation of effect size. LEfSe addresses the challenge of finding organisms, genes, or pathways that explain the alterations between two or more microbial communities. This is a popular method in metagenomics, thus a visual tutorial or guidelines, including an explanation of this methods strengths and weaknesses, could be helpful for young metagenomic researchers.

Reply: Thank you for the kind recommendation and valuable comments on our work. We have carefully addressed all the issues in the following responses to the specific comments.

Major Concerns:

1. **Reviewer #1:** The majority of the method explanation, including all figures, are focused on the web galaxy pipeline, which is straightforward. Please add an explanation of the pipeline for Conda or r analysis with LEfSe.

   Reply: Thanks. We have revised the related expressions and added detailed explanation for each step of the pipeline.

2. **Reviewer #1:** Please reorganize table 1 and include an explanation regarding the preparation of a table suitable for an analysis with LEfSe, including a possible requirement for filtering the data (relative abundance).

   Reply: Thanks. We have modified the table and add some explanation.

Change:

1. Change “Table 1” to “Table1” to match the correct information.

2. Change “Prepare the input file (Table 1) of LEfSe, which could be easily generated by many workflows [7], or previous protocols [8]” to “Prepare the input file (Table 1) of LEfSe, which could be easily generated by many workflows [7], or previous protocols [8] with the original files (sample file and corresponding species annotation file)”. (Page 2, Line 69-70).

3. **Reviewer #1:** The limitations are not discussed - LefSe has a few limitations when implemented for the analysis of complex data, for example: a. The lack of multiple hypothesis correction or the lack of false discovery rate (FDR) correction. This issue should be addressed, and possible pipeline or other solution can be of great help to new users. b. The adjustment with LEfSe is possible for one variable only, this should be clarified and an example will be helpful. c. Other limitations of this method, as compared to other, newer, existing methods should be included in the discussion section.

Reply: Agree. Thank you for the valuable comment. We have added the supplementary discussion of this.

Change: Add “On the other hand, there is a few limitations when analyzed complex data by LEfSe. LDA projects a feature that is one dimension less than the category, and if more features are needed, other methods are introduced. The variants of LDA may solve some difficulties. For example, Kernel LDA is a solution if the original data cannot be separated well after projection. And because the amount of computation of LDA is related to the dimension of data, 2DLDA can greatly reduce the amount of computation of LDA. Both LDA and PCA are commonly used dimensionality reduction techniques. PCA (Principal Component Analysisis) dimensionality reduction is directly related to the data dimension, and the projected coordinate system is orthogonal. But LDA focuses on the ability of classification according to the labeling of categories, so the projected coordinate system is

generally not orthogonal." (Page 5, Line 202-211).

Minor Concerns:

1. **Reviewer #1:** An example of a full analysis pipeline can be helpful.

   Reply: We have added detailed explanation for each step of the pipeline.

2. **Reviewer #1:** There is a need for another proofreading.

   Reply: We have carefully proofread the manuscript and correct some errors.

Reviewer #2

Manuscript Summary:

Reviewer #2: This protocol implemented by Chang et al. showed a statistical approach for biomarker selection, which is Linear discriminant analysis Effect Size (LEfSe). The authors generally showed the two available versions of LEfSe, command line version using Conda and graphical version using a Galaxy online pipeline. Although the authors tried to perform the protocol with details, such as the order of clicks, but the current protocol still have several concerning issues, especially the first two concerns.

Reply: Thank you for the kind recommendation and valuable comments on our work. We have carefully addressed all the issues in the following responses to the specific comments.

Major Concerns:

1. **Reviewer #2:** Generally, LEfSe has been extensively used in a lot of microbial studies for difference exploration and biomarker selection. There were detailed protocols and descriptions in the website of LEfSe (https://bitbucket.org/biobakery/biobakery/wiki/lefse). The protocol in this manuscript were highly similar to the LEfSe tutorial online. The section 'LEfSe native analysis (Limited to Linux sever)' was as similar as 'LEfSE (Conda/Docker/VM)' of the website, and the section 'LEfSe used online (galaxy)' was similar to 'LEfSe (Galaxy)' of the website. Therefore, this manuscript seems to be a repeated and similar work according to the public website.

Reply: Thank you for your valuable comments. Actually, we also very concerned this problem. For the purposes of our protocol, we want to provide very detailed descriptions for each step and parameter to facilitate viewers conduct LEfSe analysis easily. So, we added explanation for each step of pipeline analysis and provided schematic overview for each step of online analysis, instead of simple repetition from public website.

2. **Reviewer #2:** The authors mainly introduced a Galaxy-based pipeline to use LEfSe analysis. But the authors were neither the correspondence author of LEfSe, nor the maintainer researchers of Galaxy pipeline (Huttenhower galaxy server). This will be a conflict of rights. The authors must state their originality of this work.

   Reply: Thank you for the valuable comment. The significance and innovation of our work lied in that it presented the complete process of the LEfSe analysis by providing an example of the input file. Moreover, two methods including command line version and graphical version were provided in this protocol. We focused on the method analysis and relevant discussions through the data of microbial samples, in order to provide an idea for colleagues in this field. Besides, we added the statement that our protocol was sourced and modified from the research of Segata *et al*.

3. **Reviewer #2:** The author mentioned that there were a lot of parameters in the LEfSe analysis (Lines 197-198), but no descriptions of those parameters were mentioned in the protocol. The authors only showed a defaulted operation with the analysis pipeline, which was already implemented in the help texts of the pipeline.

   Reply: Thank you for the valuable comment. Firstly, the tunable parameters here refer to the details of the graph, such as color matched, that can be changed by the parameter values. And parameters can also be plotted by default.

4. **Reviewer #2:** The sample files (Table 1) was not corresponding to the results of

Figures 8-10. The original files of the Figures 8-10 were not provided in the supporting files. Besides, there were no introduction for the groups of A, B, and C (Lines 151-154).

Reply: Yes. There is an upload error in this file. We have submitted the new sample files (Table.xlsx) corresponding to the results of Figures 8-10.

Change: Add "The class of A, B, and C is the group name of microbial sample collected." (Page 4, Line 152-153).

Minor Concerns:

1. **Reviewer #2:** Figure 1: The uploaded file '3sum_lefse.txt' was not shown in the Figure 2.

   Reply: We have revised this figure.

2. **Reviewer #2:** Figure 2: The authors did not explain the 'class', and the format of the file '#1: Class, A, B'.

   Reply: The class of A, B, and C is the group name of microbial sample collected. We have revised the related description and submitted the new figure files.

3. **Reviewer #2:** Table of materials: No content.

   Reply: We have added the table in this version of manuscript.

4. **Reviewer #2:** Table 1: The table file was not used in the analysis and there was no results related to this.

   Reply: We have modified the table and add some explanation.

revised table

Click here to access/download;Supplemental File (Figures, Permissions, etc.);Table.xlsx

Class	A	A	A	A	A	A	B	B
Bacteria	91.54077	92.43082	93.68571	94.38803	95.45491	92.83781	88.18861	89.47352
Bacteria|A	0.172117	0.13972	0.126602	0.143464	0.105011	0.197383	0.474955	0.241623
Bacteria|A	21.35207	35.04541	24.66108	24.52952	14.28148	19.90187	21.9167	28.29847
Bacteria|A	0.009562	0.003037	0.007913	0.005626	0.005385	0.011279	0.031247	0.04133
Bacteria|B	2.706062	2.49066	7.342934	3.007117	5.145534	2.250169	3.174702	7.792332
Bacteria|C	0.009562	0.021262	0.015825	0.008439	0.029618	0.042296	0.028122	0.044509
Bacteria|C	0.519538	0.917292	0.266392	0.514782	0.549288	0.400406	0.603068	1.017359
Bacteria|C	0.143431	0.422197	0.522235	0.12096	0.465818	0.597789	4.130863	3.176067
Bacteria|F	0.003187	0.006075	0.013188	0	0.01077	0.016919	0.05312	0.038151
Bacteria|F	1.246255	1.506546	1.018094	3.015556	0.506206	1.108166	4.299597	2.117378
Bacteria|G	0.082871	0.133645	0.058026	0.075952	0.045774	0.073314	0.112489	0.098557
Bacteria|N	0.070122	0.063785	0.029013	0.047821	0.040389	0.062035	0.10624	0.050868
Bacteria|P	0.105183	0.230842	0.137153	0.081578	0.037696	0.101511	0.47808	0.58816
Bacteria|P	64.99968	51.34708	59.30791	62.72188	73.95999	67.91394	52.45133	45.69848
Bacteria|S	0.050998	0.033411	0.092314	0.081578	0.134629	0.067674	0.103115	0.079481
Bacteria|T	0.009562	0.006075	0.018463	0.005626	0.102318	0.019738	0.003125	0.066764
Bacteria|V	0.06056	0.063785	0.068576	0.02813	0.035004	0.073314	0.221854	0.123991
Bacteria|A	0.028686	0.054673	0.0211	0.008439	0.008078	0.045116	0.221854	0.120811
Bacteria|A	0.143431	0.085047	0.105502	0.135025	0.096933	0.152267	0.253101	0.120811
Bacteria|A	0.567349	0.732011	0.551248	0.466961	0.37427	0.541394	1.096772	0.947415
Bacteria|A	19.04762	31.45521	22.70401	22.13564	12.8221	17.31051	17.92019	24.14955
Bacteria|A	0.465353	0.771497	0.366619	0.427579	0.236948	0.462441	0.640565	0.893368
Bacteria|A	0.025499	0.075935	0.023738	0.045008	0.01077	0.031017	0.049995	0.057226
Bacteria|A	1.246255	2.010752	1.015456	1.454331	0.837395	1.556508	2.209168	2.250906
Bacteria|A	0.009562	0.003037	0.007913	0.005626	0.005385	0.011279	0.031247	0.04133
Bacteria|B	0.140244	0.072897	0.055389	0.061886	0.032311	0.042296	0.42496	0.228906
Bacteria|B	1.000829	0.613553	0.276943	0.427579	0.46851	0.211482	1.209262	0.852038
Bacteria|B	1.50443	1.764724	6.963127	2.427635	4.566628	1.956914	1.499859	6.682775
Bacteria|B	0.06056	0.039486	0.047476	0.090017	0.078085	0.039477	0.040621	0.028613
Bacteria|C	0.003187	0.01215	0.015825	0	0.029618	0.008459	0.021873	0.038151
Bacteria|C	0.006375	0.009112	0	0.008439	0	0.033837	0.006249	0.006358
Bacteria|C	0.003187	0.015187	0	0	0	0.011279	0.006249	0.034972
Bacteria|C	0.43348	0.814021	0.234742	0.399449	0.533132	0.335552	0.453083	0.912444
Bacteria|C	0.015937	0.021262	0.007913	0.008439	0.002693	0.00564	0.087492	0.025434
Bacteria|C	0.066934	0.066823	0.023738	0.106895	0.013463	0.047936	0.056245	0.044509
Bacteria|C	0	0.091122	0.002638	0.005626	0.002693	0.031017	0.218729	0.515038
Bacteria|C	0.143431	0.331076	0.519597	0.115334	0.463125	0.521656	3.905884	2.641953
Bacteria|C	0	0	0	0	0	0.045116	0	0.019075
Bacteria|C	0	0	0	0	0	0	0.006249	0
Bacteria|F	0.003187	0.006075	0.013188	0	0.01077	0.016919	0.05312	0.038151
Bacteria|F	1.246255	1.060049	1.018094	3.015556	0.503514	1.108166	4.299597	2.114199
Bacteria|F	0	0.446496	0	0	0.002693	0	0	0.003179
Bacteria|G	0.070122	0.109346	0.031651	0.070325	0.045774	0.064855	0.103115	0.092198
Bacteria|G	0.012749	0.024299	0.026375	0.005626	0	0.008459	0.009374	0.006358
Bacteria|N	0.070122	0.063785	0.029013	0.047821	0.040389	0.062035	0.10624	0.050868
Bacteria|P	0.035061	0.048598	0.031651	0.033756	0.008078	0.039477	0.124988	0.076302

Bacteria|Pl	0.050998	0.018224	0	0.030943	0.002693	0.016919	0.043746	0.012717
Bacteria|Pl	0.019124	0.164019	0.105502	0.016878	0.026926	0.045116	0.309346	0.499142
Bacteria|Pr	16.57423	15.99793	20.07702	18.02864	20.11363	19.03339	16.37346	14.33522
Bacteria|Pr	35.94696	24.3052	29.49306	34.24569	43.82186	36.20291	21.36987	19.10409
Bacteria|Pr	5.973099	5.689032	4.101387	4.661172	4.10081	6.682833	6.305659	4.600369
Bacteria|Pr	6.505387	5.354919	5.63644	5.786379	5.923692	5.994812	8.402337	7.658803
Bacteria|Sp	0.050998	0.033411	0.092314	0.081578	0.134629	0.067674	0.103115	0.079481
Bacteria|Th	0.009562	0.006075	0.018463	0.005626	0.102318	0.019738	0.003125	0.066764
Bacteria|Ve	0.038248	0.018224	0.002638	0.014065	0	0.028198	0.031247	0.025434
Bacteria|Ve	0.012749	0.021262	0.013188	0.002813	0.01077	0.011279	0.103115	0.034972
Bacteria|Ve	0.006375	0.018224	0.023738	0.011252	0.016156	0.028198	0.056245	0.031792
Bacteria|Ve	0.003187	0.006075	0.029013	0	0.008078	0.00564	0.031247	0.031792
Bacteria|Ac	0.009562	0.018224	0.01055	0	0.002693	0.019738	0.071868	0.034972
Bacteria|Ac	0.019124	0.036449	0.01055	0.008439	0.005385	0.025378	0.149986	0.08584
Bacteria|Ac	0.143431	0.085047	0.105502	0.135025	0.096933	0.152267	0.253101	0.120811
Bacteria|Ac	0.567349	0.732011	0.551248	0.466961	0.37427	0.541394	1.096772	0.947415
Bacteria|Ac	18.81494	31.05732	22.23981	21.99781	12.76286	17.17798	17.61397	23.74897
Bacteria|Ac	0.232677	0.397898	0.464208	0.137838	0.059237	0.132529	0.306221	0.400585
Bacteria|Ac	0.465353	0.771497	0.366619	0.427579	0.236948	0.462441	0.640565	0.893368
Bacteria|Ac	0.025499	0.075935	0.023738	0.045008	0.01077	0.031017	0.049995	0.057226
Bacteria|Ac	0.662969	1.239255	0.609274	0.911418	0.508899	0.778254	0.968659	1.386151
Bacteria|Ac	0.583286	0.771497	0.406182	0.542913	0.328496	0.778254	1.240509	0.864755
Bacteria|Ar	0.009562	0.003037	0.007913	0.005626	0.005385	0.011279	0.031247	0.04133
Bacteria|Ba	0.140244	0.072897	0.055389	0.061886	0.032311	0.042296	0.42496	0.228906
Bacteria|Ba	1.000829	0.613553	0.276943	0.427579	0.46851	0.211482	1.209262	0.852038
Bacteria|Ba	1.50443	1.764724	6.963127	2.427635	4.566628	1.956914	1.499859	6.682775
Bacteria|Ba	0.06056	0.039486	0.047476	0.090017	0.078085	0.039477	0.040621	0.028613
Bacteria|Cl	0.003187	0.01215	0.015825	0	0.029618	0.008459	0.021873	0.038151
Bacteria|Cl	0.006375	0.009112	0	0.008439	0	0.033837	0.006249	0.006358
Bacteria|Cl	0.003187	0.015187	0	0	0	0.011279	0.006249	0.034972
Bacteria|Cl	0.344234	0.659114	0.203091	0.312245	0.471203	0.279156	0.406212	0.858396
Bacteria|Cl	0.089246	0.154907	0.031651	0.087204	0.06193	0.056395	0.046871	0.054047
Bacteria|Cl	0.015937	0.021262	0.007913	0.008439	0.002693	0.00564	0.087492	0.025434
Bacteria|Cl	0.054185	0.036449	0.018463	0.078765	0.01077	0.036657	0.037496	0.025434
Bacteria|Cl	0.012749	0.030374	0.005275	0.02813	0.002693	0.011279	0.018748	0.019075
Bacteria|Cy	0	0.091122	0.002638	0.005626	0.002693	0.031017	0.218729	0.515038
Bacteria|Cy	0.143431	0.331076	0.519597	0.115334	0.463125	0.521656	3.905884	2.641953
Bacteria|Cy	0	0	0	0	0	0.045116	0	0.019075
Bacteria|Cy	0	0	0	0	0	0	0.006249	0
Bacteria|Fi	0.003187	0.006075	0.013188	0	0.01077	0.016919	0.05312	0.038151
Bacteria|Fi	1.246255	1.060049	1.018094	3.015556	0.503514	1.108166	4.299597	2.114199
Bacteria|Fi	0	0.446496	0	0	0.002693	0	0	0.003179
Bacteria|G	0.070122	0.109346	0.031651	0.070325	0.045774	0.064855	0.103115	0.092198
Bacteria|G	0.012749	0.024299	0.026375	0.005626	0	0.008459	0.009374	0.006358
Bacteria|N	0.070122	0.063785	0.029013	0.047821	0.040389	0.062035	0.10624	0.050868
Bacteria|Pl	0.035061	0.048598	0.031651	0.033756	0.008078	0.039477	0.124988	0.076302
Bacteria|Pl	0.050998	0.018224	0	0.030943	0.002693	0.016919	0.043746	0.012717

Bacteria|Pl	0.019124	0.164019	0.105502	0.016878	0.026926	0.045116	0.309346	0.499142
Bacteria|Pı	0.146618	0.115421	0.116052	0.095643	0.056544	0.059215	0.237478	0.228906
Bacteria|Pı	1.17932	1.066124	1.033919	1.04363	1.235898	1.274532	0.828047	0.737585
Bacteria|Pı	0.012749	0.009112	0.034288	0.011252	0.005385	0.008459	0.034372	0
Bacteria|Pı	11.9207	11.64839	14.70961	13.11992	15.12426	13.9268	11.80202	10.66319
Bacteria|Pı	0.280487	0.239954	0.208366	0.191285	0.140015	0.23686	0.399963	0.238443
Bacteria|Pı	1.093262	1.120797	0.738513	0.694816	0.506206	0.82055	1.540481	1.049151
Bacteria|Pı	0.022311	0.006075	0.002638	0	0	0	0.021873	0.012717
Bacteria|Pı	1.918786	1.79206	3.233634	2.872092	3.045316	2.70697	1.509234	1.405227
Bacteria|Pı	1.045452	0.744161	0.532785	0.604799	0.403888	0.809271	0.993657	0.712151
Bacteria|Pı	0.04781	0.006075	0.005275	0.033756	0.013463	0.036657	0.006249	0.012717
Bacteria|Pı	33.37158	22.10309	27.35665	32.51006	42.25747	33.98376	18.91385	17.10434
Bacteria|Pı	0.471728	0.464721	0.580261	0.554165	0.436199	0.380668	0.399963	0.282953
Bacteria|Pı	0.015937	0.003037	0.01055	0.008439	0.016156	0.025378	0.009374	0.015896
Bacteria|Pı	0.181679	0.315889	0.131877	0.118147	0.403888	0.403226	0.124988	0.359255
Bacteria|Pı	0.567349	0.455609	0.727963	0.253172	0.123859	0.290435	0.668687	0.435557
Bacteria|Pı	0.121119	0.072897	0.102864	0.090017	0.110396	0.135349	0.093741	0.08266
Bacteria|Pı	0.124307	0.13972	0.044838	0.073138	0.056544	0.138168	0.15936	0.098557
Bacteria|Pı	0.178492	0.230842	0.274305	0.329123	0.829317	0.253778	0.218729	0.228906
Bacteria|Pı	0.04781	0.130608	0.189903	0.337562	0.401196	0.087413	0.234353	0.133528
Bacteria|Pı	5.354752	5.023844	3.376062	3.715998	2.770672	6.065306	5.22451	3.824633
Bacteria|Pı	0.350609	0.26729	0.245292	0.236294	0.088855	0.23968	0.581196	0.37833
Bacteria|Pı	0.041436	0.036449	0.015825	0.042195	0.01077	0.036657	0.046871	0.034972
Bacteria|Pı	0.015937	0.009112	0.01055	0	0.002693	0.016919	0.021873	0.022255
Bacteria|Pı	0.184866	0.045561	0.058026	0.033756	0.099626	0.056395	0.099991	0.321104
Bacteria|Pı	0	0	0	0.005626	0	0	0.671812	0
Bacteria|Pı	0.012749	0.021262	0.007913	0.016878	0.005385	0.008459	0.006249	0.019075
Bacteria|Pı	0.462166	0.27944	0.38772	0.421953	1.421686	0.400406	0.790551	2.060151
Bacteria|Pı	0.235864	0.176169	0.16089	0.098456	0.029618	0.090232	0.337468	0.213009
Bacteria|Pı	5.593804	4.823376	5.011341	5.209711	4.364684	5.4224	6.474393	5.023208
Bacteria|Sp	0.050998	0.033411	0.092314	0.081578	0.134629	0.067674	0.103115	0.079481
Bacteria|Tl	0.009562	0.006075	0.018463	0.005626	0.102318	0.019738	0.003125	0.066764
Bacteria|V	0.038248	0.018224	0.002638	0.014065	0	0.028198	0.031247	0.025434
Bacteria|V	0.012749	0.021262	0.013188	0.002813	0.01077	0.011279	0.103115	0.034972
Bacteria|V	0.006375	0.018224	0.023738	0.011252	0.016156	0.028198	0.056245	0.031792
Bacteria|V	0.003187	0.006075	0.029013	0	0.008078	0.00564	0.031247	0.031792
Bacteria|A	0.009562	0.018224	0.01055	0	0.002693	0.019738	0.071868	0.034972
Bacteria|A	0.019124	0.036449	0.01055	0.008439	0.005385	0.025378	0.149986	0.08584
Bacteria|A	0.143431	0.085047	0.105502	0.135025	0.096933	0.152267	0.253101	0.120811
Bacteria|A	0.26455	0.334113	0.316506	0.17722	0.177711	0.259418	0.393713	0.426019
Bacteria|A	0.066934	0.075935	0.015825	0.050634	0.035004	0.031017	0.162485	0.174859
Bacteria|A	0.175304	0.176169	0.097589	0.17722	0.123859	0.172005	0.359341	0.1685
Bacteria|A	0.006375	0.018224	0.005275	0.011252	0	0.028198	0.037496	0.012717
Bacteria|A	0.054185	0.12757	0.116052	0.050634	0.037696	0.050756	0.143737	0.165321
Bacteria|A	0.092433	0.191356	0.031651	0.084391	0.053852	0.036657	0.087492	0.092198
Bacteria|A	2.970613	6.454454	3.070106	5.74981	3.853092	2.690052	2.887229	3.258727
Bacteria|A	0.070122	0.066823	0.005275	0.019691	0.01077	0.028198	0.128113	0.08584

Bacteria|A	0.305986	0.370562	0.424645	0.286928	0.183096	0.329912	0.190607	0.352896
Bacteria|A	0.063747	0.15187	0.097589	0.070325	0.032311	0.064855	0.090617	0.174859
Bacteria|A	0.066934	0.142757	0.055389	0.036569	0.016156	0.095872	0.034372	0.022255
Bacteria|A	0.092433	0.145795	0.089677	0.078765	0.051159	0.073314	0.096866	0.104915
Bacteria|A	0.392044	0.835282	0.340244	0.641368	0.091548	0.259418	0.671812	0.604057
Bacteria|A	0.768152	1.287853	0.859841	0.872036	0.554673	0.642905	0.821798	1.169962
Bacteria|A	0.10837	0.136683	0.063301	0.104082	0.048467	0.056395	0.118739	0.321104
Bacteria|A	4.255116	7.153054	3.937859	3.828518	2.240233	4.215543	4.196482	5.865709
Bacteria|A	0.436667	0.537618	0.371894	0.284115	0.134629	0.197383	0.37184	0.406943
Bacteria|A	0.073309	0.091122	0.174078	0.008439	0.037696	0.047936	0.024998	0.117632
Bacteria|A	2.546695	4.158187	3.740043	2.773636	2.372169	2.935371	2.13105	3.598906
Bacteria|A	0.21674	0.373599	0.11869	0.247546	0.107703	0.425784	0.199981	0.203472
Bacteria|A	0.031874	0.006075	0	0.008439	0.002693	0.008459	0.028122	0.009538
Bacteria|A	1.861414	3.38669	3.893021	2.894596	0.977409	1.429619	2.515389	2.320849
Bacteria|A	3.560273	4.410291	4.768687	2.638611	1.61286	2.895894	2.399775	3.916831
Bacteria|A	0.06056	0.203505	0.055389	0.101269	0.024233	0.183284	0.10624	0.190755
Bacteria|A	0.841461	0.953741	0.142428	1.268671	0.358114	0.561132	0.512452	0.931519
Bacteria|A	0.232677	0.397898	0.464208	0.137838	0.059237	0.132529	0.306221	0.400585
Bacteria|A	0.465353	0.771497	0.366619	0.427579	0.236948	0.462441	0.640565	0.893368
Bacteria|A	0.025499	0.075935	0.023738	0.045008	0.01077	0.031017	0.049995	0.057226
Bacteria|A	0.009562	0.01215	0	0	0.002693	0.011279	0.012499	0.025434
Bacteria|A	0.653407	1.227106	0.609274	0.911418	0.506206	0.766975	0.95616	1.360717
Bacteria|A	0.226302	0.376636	0.29013	0.343188	0.234255	0.304534	0.465581	0.470528
Bacteria|A	0.10837	0.115421	0.031651	0.036569	0.018848	0.095872	0.168734	0.092198
Bacteria|A	0.248614	0.27944	0.084402	0.163155	0.075392	0.377848	0.606193	0.302028
Bacteria|A	0.009562	0.003037	0.007913	0.005626	0.005385	0.011279	0.031247	0.04133
Bacteria|B	0.140244	0.072897	0.055389	0.061886	0.032311	0.042296	0.42496	0.228906
Bacteria|B	0.035061	0.01215	0.018463	0.030943	0.008078	0.014099	0.031247	0.019075
Bacteria|B	0.965768	0.601403	0.25848	0.396636	0.460432	0.197383	1.178015	0.832962
Bacteria|B	0.012749	0.01215	0.005275	0.008439	0.002693	0.00282	0.006249	0.066764
Bacteria|B	0.054185	0.042523	0.044838	0.030943	0.018848	0.011279	0.118739	0.123991
Bacteria|B	1.437496	1.710051	6.913014	2.388253	4.545087	1.942815	1.374871	6.49202
Bacteria|B	0.06056	0.039486	0.047476	0.090017	0.078085	0.039477	0.040621	0.028613
Bacteria|C	0.003187	0.01215	0.015825	0	0.029618	0.008459	0.021873	0.038151
Bacteria|C	0.006375	0.009112	0	0.008439	0	0.033837	0.006249	0.006358
Bacteria|C	0.003187	0.015187	0	0	0	0.011279	0.006249	0.034972
Bacteria|C	0.299611	0.583179	0.181991	0.258798	0.433507	0.23404	0.353092	0.753481
Bacteria|C	0.044623	0.075935	0.0211	0.053447	0.037696	0.045116	0.05312	0.104915
Bacteria|C	0.089246	0.154907	0.031651	0.087204	0.06193	0.056395	0.046871	0.054047
Bacteria|C	0.015937	0.021262	0.007913	0.008439	0.002693	0.00564	0.087492	0.025434
Bacteria|C	0.054185	0.036449	0.018463	0.078765	0.01077	0.036657	0.037496	0.025434
Bacteria|C	0.012749	0.030374	0.005275	0.02813	0.002693	0.011279	0.018748	0.019075
Bacteria|C	0	0.091122	0.002638	0.005626	0.002693	0.031017	0.218729	0.515038
Bacteria|C	0.143431	0.331076	0.519597	0.115334	0.463125	0.521656	3.905884	2.641953
Bacteria|C	0	0	0	0	0	0.045116	0	0.019075
Bacteria|C	0	0	0	0	0	0	0.006249	0
Bacteria|Fi	0.003187	0.006075	0.013188	0	0.01077	0.016919	0.05312	0.038151

Bacteria|Fi	0.015937	0.024299	0.047476	0.019691	0.013463	0.022558	0.012499	0.022255
Bacteria|Fi	0.015937	0.003037	0.002638	0.002813	0	0.033837	0.009374	0.009538
Bacteria|Fi	0.796838	0.701637	0.348156	0.374131	0.379655	0.482179	2.705996	1.106378
Bacteria|Fi	0.290049	0.19743	0.574985	2.500774	0.070007	0.482179	1.487361	0.823425
Bacteria|Fi	0.095621	0.072897	0.0211	0.05626	0.037696	0.081773	0.071868	0.057226
Bacteria|Fi	0.031874	0.060748	0.023738	0.061886	0.002693	0.00564	0.012499	0.095377
Bacteria|Fi	0	0.446496	0	0	0.002693	0	0	0.003179
Bacteria|G	0.070122	0.109346	0.031651	0.070325	0.045774	0.064855	0.103115	0.092198
Bacteria|G	0.012749	0.024299	0.026375	0.005626	0	0.008459	0.009374	0.006358
Bacteria|N	0.070122	0.063785	0.029013	0.047821	0.040389	0.062035	0.10624	0.050868
Bacteria|Pl	0.035061	0.048598	0.031651	0.033756	0.008078	0.039477	0.124988	0.076302
Bacteria|Pl	0.050998	0.018224	0	0.030943	0.002693	0.016919	0.043746	0.012717
Bacteria|Pl	0.019124	0.164019	0.105502	0.016878	0.026926	0.045116	0.309346	0.499142
Bacteria|Pı	0.146618	0.115421	0.116052	0.095643	0.056544	0.059215	0.237478	0.228906
Bacteria|Pı	1.17932	1.066124	1.033919	1.04363	1.235898	1.274532	0.828047	0.737585
Bacteria|Pı	0.012749	0.009112	0.034288	0.011252	0.005385	0.008459	0.034372	0
Bacteria|Pı	1.17932	1.181545	1.606267	1.654055	1.405531	1.232236	1.359248	1.449736
Bacteria|Pı	0.933894	1.066124	0.727963	0.469774	0.638143	0.845928	1.11552	0.763019
Bacteria|Pı	5.332441	5.367069	6.799599	5.530395	6.376047	6.400857	5.802581	4.959624
Bacteria|Pı	0.06056	0.045561	0.087039	0.039382	0.161555	0.036657	0.034372	0.054047
Bacteria|Pı	0.675719	0.710749	0.574985	0.790458	0.832009	1.079968	0.546824	0.537293
Bacteria|Pı	3.716453	3.262157	4.90584	4.627416	5.705593	4.283217	2.902853	2.889935
Bacteria|Pı	0.022311	0.015187	0.007913	0.008439	0.005385	0.047936	0.040621	0.009538
Bacteria|Pı	0.226302	0.224767	0.184628	0.154716	0.131937	0.208662	0.353092	0.200292
Bacteria|Pı	0.054185	0.015187	0.023738	0.036569	0.008078	0.028198	0.046871	0.038151
Bacteria|Pı	0.114745	0.112383	0.055389	0.087204	0.06193	0.11279	0.099991	0.08266
Bacteria|Pı	0.978517	1.008414	0.683125	0.607612	0.444277	0.70776	1.44049	0.966491
Bacteria|Pı	0.022311	0.006075	0.002638	0	0	0	0.021873	0.012717
Bacteria|Pı	0.04781	0.006075	0.005275	0.002813	0.008078	0.033837	0.059369	0.028613
Bacteria|Pı	0.293236	0.258178	0.356069	0.295367	0.398503	0.487819	0.243727	0.203472
Bacteria|Pı	1.57774	1.527807	2.87229	2.573912	2.638736	2.185315	1.206137	1.173142
Bacteria|Pı	1.045452	0.744161	0.532785	0.604799	0.403888	0.809271	0.993657	0.712151
Bacteria|Pı	0.04781	0.006075	0.005275	0.033756	0.013463	0.036657	0.006249	0.012717
Bacteria|Pı	0.809588	0.446496	0.466846	1.158964	0.807776	1.17866	0.206231	0.149425
Bacteria|Pı	0.003187	0	0.002638	0.002813	0.021541	0	0.018748	0.111274
Bacteria|Pı	0.038248	0.01215	0.023738	0.02813	0.137322	0.033837	0.009374	0.034972
Bacteria|Pı	26.66539	17.93579	23.01788	24.8052	33.95083	24.81672	14.683	13.65804
Bacteria|Pı	5.855167	3.708654	3.845545	6.514951	7.339993	7.954545	3.9965	3.150633
Bacteria|Pı	0.471728	0.464721	0.580261	0.554165	0.436199	0.380668	0.399963	0.282953
Bacteria|Pı	0.015937	0.003037	0.01055	0.008439	0.016156	0.025378	0.009374	0.015896
Bacteria|Pı	0.181679	0.315889	0.131877	0.118147	0.403888	0.403226	0.124988	0.359255
Bacteria|Pı	0.567349	0.455609	0.727963	0.253172	0.123859	0.290435	0.668687	0.435557
Bacteria|Pı	0.121119	0.072897	0.102864	0.090017	0.110396	0.135349	0.093741	0.08266
Bacteria|Pı	0.124307	0.13972	0.044838	0.073138	0.056544	0.138168	0.15936	0.098557
Bacteria|Pı	0.105183	0.109346	0.224192	0.185659	0.568136	0.155087	0.131238	0.171679
Bacteria|Pı	0.073309	0.121496	0.050113	0.143464	0.261181	0.098692	0.087492	0.057226
Bacteria|Pı	0.04781	0.130608	0.189903	0.337562	0.401196	0.087413	0.234353	0.133528

Bacteria|Pı	4.889399	4.78389	3.128132	3.42907	2.601039	5.828446	4.515202	3.424048
Bacteria|Pı	0.082871	0.042523	0.068576	0.047821	0.032311	0.028198	0.253101	0.152604
Bacteria|Pı	0.070122	0.075935	0.015825	0.014065	0.021541	0.031017	0.046871	0.063585
Bacteria|Pı	0.054185	0.024299	0.018463	0.016878	0.026926	0.033837	0.049995	0.04133
Bacteria|Pı	0.025499	0.018224	0.007913	0.025317	0.005385	0.028198	0.021873	0.025434
Bacteria|Pı	0.232677	0.078972	0.137153	0.182846	0.08347	0.11561	0.337468	0.117632
Bacteria|Pı	0.245426	0.194393	0.184628	0.135025	0.064622	0.172005	0.409337	0.270236
Bacteria|Pı	0.022311	0.018224	0.007913	0.011252	0.005385	0.014099	0.046871	0.015896
Bacteria|Pı	0.082871	0.054673	0.052751	0.090017	0.018848	0.053575	0.124988	0.092198
Bacteria|Pı	0.041436	0.036449	0.015825	0.042195	0.01077	0.036657	0.046871	0.034972
Bacteria|Pı	0.015937	0.009112	0.01055	0	0.002693	0.016919	0.021873	0.022255
Bacteria|Pı	0.070122	0.033411	0.031651	0.002813	0.013463	0.039477	0.068744	0.047689
Bacteria|Pı	0.114745	0.01215	0.026375	0.030943	0.086163	0.016919	0.031247	0.273415
Bacteria|Pı	0	0	0	0.005626	0	0	0.671812	0
Bacteria|Pı	0.012749	0.021262	0.007913	0.016878	0.005385	0.008459	0.006249	0.019075
Bacteria|Pı	0.146618	0.078972	0.158253	0.143464	0.315033	0.169186	0.131238	0.123991
Bacteria|Pı	0.315548	0.200468	0.229467	0.278489	1.106653	0.23122	0.659313	1.936161
Bacteria|Pı	0.235864	0.176169	0.16089	0.098456	0.029618	0.090232	0.337468	0.213009
Bacteria|Pı	3.598521	3.338092	2.954054	2.770823	1.911737	2.771825	5.008905	3.449482
Bacteria|Pı	1.995283	1.485284	2.057288	2.438887	2.452947	2.650575	1.465488	1.573727
Bacteria|Sp	0.050998	0.033411	0.092314	0.081578	0.134629	0.067674	0.103115	0.079481
Bacteria|Tl	0.009562	0.006075	0.018463	0.005626	0.102318	0.019738	0.003125	0.066764
Bacteria|V	0.038248	0.018224	0.002638	0.014065	0	0.028198	0.031247	0.025434
Bacteria|V	0.012749	0.021262	0.013188	0.002813	0.01077	0.011279	0.103115	0.034972
Bacteria|V	0.006375	0.018224	0.023738	0.011252	0.016156	0.028198	0.056245	0.031792
Bacteria|V	0.003187	0.006075	0.029013	0	0.008078	0.00564	0.031247	0.031792
Bacteria|A	0.009562	0.018224	0.01055	0	0.002693	0.019738	0.071868	0.034972
Bacteria|A	0.019124	0.036449	0.01055	0.008439	0.005385	0.025378	0.149986	0.08584
Bacteria|A	0.143431	0.085047	0.105502	0.135025	0.096933	0.152267	0.253101	0.120811
Bacteria|A	0.26455	0.334113	0.316506	0.17722	0.177711	0.259418	0.393713	0.426019
Bacteria|A	0.066934	0.075935	0.015825	0.050634	0.035004	0.031017	0.162485	0.174859
Bacteria|A	0.175304	0.176169	0.097589	0.17722	0.123859	0.172005	0.359341	0.1685
Bacteria|A	0.006375	0.018224	0.005275	0.011252	0	0.028198	0.037496	0.012717
Bacteria|A	0.035061	0.042523	0.060664	0.005626	0.024233	0.022558	0.071868	0.066764
Bacteria|A	0.019124	0.085047	0.055389	0.045008	0.013463	0.028198	0.071868	0.098557
Bacteria|A	0.092433	0.191356	0.031651	0.084391	0.053852	0.036657	0.087492	0.092198
Bacteria|A	0.356983	0.716824	0.181991	0.255985	0.158863	0.284796	0.268725	0.337
Bacteria|A	0.200803	0.273365	0.055389	3.36437	1.440534	0.11561	0.293722	0.41966
Bacteria|A	2.37139	5.455153	2.766788	2.129455	2.251003	2.284006	2.324782	2.374897
Bacteria|A	0.041436	0.009112	0.065939	0	0.002693	0.00564	0	0.12717
Bacteria|A	0.070122	0.066823	0.005275	0.019691	0.01077	0.028198	0.128113	0.08584
Bacteria|A	0.299611	0.370562	0.422008	0.286928	0.183096	0.276337	0.178108	0.340179
Bacteria|A	0.006375	0	0.002638	0	0	0.053575	0.012499	0.012717
Bacteria|A	0.050998	0.133645	0.094952	0.061886	0.024233	0.059215	0.081242	0.143066
Bacteria|A	0.012749	0.018224	0.002638	0.008439	0.008078	0.00564	0.009374	0.031792
Bacteria|A	0.066934	0.142757	0.055389	0.036569	0.016156	0.095872	0.034372	0.022255
Bacteria|A	0.012749	0.018224	0.005275	0.011252	0.005385	0.011279	0.015624	0.015896

Bacteria|A	0.015937	0.048598	0.047476	0.011252	0.01077	0.014099	0.009374	0.019075
Bacteria|A	0.063747	0.078972	0.036926	0.05626	0.035004	0.047936	0.071868	0.069943
Bacteria|A	0.392044	0.835282	0.340244	0.641368	0.091548	0.259418	0.671812	0.604057
Bacteria|A	0.009562	0	0.002638	0	0	0.011279	0.009374	0.022255
Bacteria|A	0.621534	1.248367	0.825553	0.815775	0.487358	0.563952	0.74368	1.077764
Bacteria|A	0.137056	0.024299	0.026375	0.050634	0.045774	0.062035	0.065619	0.034972
Bacteria|A	0	0.015187	0.005275	0.005626	0.021541	0.00564	0.003125	0.034972
Bacteria|A	0.095621	0.130608	0.058026	0.078765	0.048467	0.050756	0.10624	0.308387
Bacteria|A	0.012749	0.006075	0.005275	0.025317	0	0.00564	0.012499	0.012717
Bacteria|A	0.787276	1.433648	0.886216	0.486652	0.522362	0.735958	0.815549	1.1795
Bacteria|A	1.367374	2.730614	1.142058	1.282737	0.810469	1.734153	1.149892	1.726331
Bacteria|A	0.344234	0.683413	0.205729	0.247546	0.37427	0.23686	0.312471	0.495962
Bacteria|A	1.02314	1.072199	0.815002	0.97893	0.250411	0.950259	0.884292	1.109557
Bacteria|A	0.009562	0.003037	0.007913	0	0	0.00564	0.031247	0.031792
Bacteria|A	0.012749	0.009112	0.002638	0.016878	0	0.00564	0.056245	0.184396
Bacteria|A	0.012749	0.009112	0.005275	0	0	0.00564	0	0.012717
Bacteria|A	0.331485	0.604441	0.287493	0.337562	0.099626	0.250959	0.493704	0.584981
Bacteria|A	0.366546	0.607478	0.585536	0.478213	0.183096	0.290435	0.453083	0.540472
Bacteria|A	0.436667	0.537618	0.371894	0.284115	0.134629	0.197383	0.37184	0.406943
Bacteria|A	0.073309	0.091122	0.174078	0.008439	0.037696	0.047936	0.024998	0.117632
Bacteria|A	1.268566	1.740425	1.801445	1.476835	1.31129	1.40988	1.128019	2.022
Bacteria|A	0.401606	0.601403	0.851928	0.464148	0.420044	0.4709	0.149986	0.317925
Bacteria|A	0.452604	1.114722	0.522235	0.334749	0.269259	0.391947	0.512452	0.613594
Bacteria|A	0.328297	0.522431	0.332331	0.239107	0.234255	0.552673	0.231228	0.502321
Bacteria|A	0.095621	0.179206	0.232104	0.258798	0.137322	0.109971	0.109365	0.143066
Bacteria|A	0.015937	0.009112	0.005275	0	0	0.00282	0.009374	0.003179
Bacteria|A	0.191241	0.352337	0.102864	0.24192	0.096933	0.411685	0.184358	0.178038
Bacteria|A	0.009562	0.01215	0.01055	0.005626	0.01077	0.011279	0.006249	0.022255
Bacteria|A	0.031874	0.006075	0	0.008439	0.002693	0.008459	0.028122	0.009538
Bacteria|A	1.039077	1.30304	3.339136	1.730006	0.282722	0.741597	1.815455	1.459274
Bacteria|A	0.580098	1.643228	0.071214	0.812962	0.535825	0.434243	0.346842	0.495962
Bacteria|A	0.242239	0.440422	0.482671	0.351627	0.158863	0.253778	0.353092	0.365613
Bacteria|A	0.111557	0.142757	0.039563	0.039382	0.021541	0.053575	0.071868	0.1685
Bacteria|A	0.420731	1.421499	1.490215	0.250359	0.503514	0.851568	0.243727	0.257519
Bacteria|A	3.027985	2.846035	3.238909	2.348871	1.087805	1.990751	2.08418	3.490812
Bacteria|A	0	0.018224	0	0.014065	0.005385	0.014099	0.006249	0.012717
Bacteria|A	0.06056	0.185281	0.055389	0.087204	0.018848	0.169186	0.099991	0.178038
Bacteria|A	0.025499	0.042523	0	0.022504	0.002693	0.014099	0.009374	0.031792
Bacteria|A	0.815962	0.911217	0.142428	1.246167	0.355422	0.547034	0.503078	0.899727
Bacteria|A	0.232677	0.397898	0.464208	0.137838	0.059237	0.132529	0.306221	0.400585
Bacteria|A	0.465353	0.771497	0.366619	0.427579	0.236948	0.462441	0.640565	0.893368
Bacteria|A	0.025499	0.075935	0.023738	0.045008	0.01077	0.031017	0.049995	0.057226
Bacteria|A	0.009562	0.01215	0	0	0.002693	0.011279	0.012499	0.025434
Bacteria|A	0.653407	1.227106	0.609274	0.911418	0.506206	0.766975	0.95616	1.360717
Bacteria|A	0.226302	0.376636	0.29013	0.343188	0.234255	0.304534	0.465581	0.470528
Bacteria|A	0.10837	0.115421	0.031651	0.036569	0.018848	0.095872	0.168734	0.092198
Bacteria|A	0.248614	0.27944	0.084402	0.163155	0.075392	0.377848	0.606193	0.302028

Bacteria|A	0.009562	0.003037	0.007913	0.005626	0.005385	0.011279	0.031247	0.04133
Bacteria|B	0.012749	0.009112	0.005275	0.005626	0.002693	0.00564	0.115614	0.044509
Bacteria|B	0.127494	0.063785	0.050113	0.05626	0.029618	0.036657	0.309346	0.184396
Bacteria|B	0.035061	0.01215	0.018463	0.030943	0.008078	0.014099	0.031247	0.019075
Bacteria|B	0.965768	0.601403	0.25848	0.396636	0.460432	0.197383	1.178015	0.832962
Bacteria|B	0.012749	0.01215	0.005275	0.008439	0.002693	0.00282	0.006249	0.066764
Bacteria|B	0.009562	0.015187	0	0.011252	0.002693	0.00282	0.034372	0.057226
Bacteria|B	0.044623	0.027337	0.044838	0.019691	0.016156	0.008459	0.084367	0.066764
Bacteria|B	1.437496	1.710051	6.913014	2.388253	4.545087	1.942815	1.374871	6.49202
Bacteria|B	0.06056	0.039486	0.047476	0.090017	0.078085	0.039477	0.040621	0.028613
Bacteria|C	0.003187	0.01215	0.015825	0	0.029618	0.008459	0.021873	0.038151
Bacteria|C	0.006375	0.009112	0	0.008439	0	0.033837	0.006249	0.006358
Bacteria|C	0.003187	0.015187	0	0	0	0.011279	0.006249	0.034972
Bacteria|C	0.044623	0.075935	0.0211	0.053447	0.037696	0.045116	0.05312	0.104915
Bacteria|C	0.299611	0.583179	0.181991	0.258798	0.433507	0.23404	0.353092	0.753481
Bacteria|C	0.089246	0.154907	0.031651	0.087204	0.06193	0.056395	0.046871	0.054047
Bacteria|C	0.015937	0.021262	0.007913	0.008439	0.002693	0.00564	0.087492	0.025434
Bacteria|C	0.054185	0.036449	0.018463	0.078765	0.01077	0.036657	0.037496	0.025434
Bacteria|C	0.012749	0.030374	0.005275	0.02813	0.002693	0.011279	0.018748	0.019075
Bacteria|C	0	0.091122	0.002638	0.005626	0.002693	0.031017	0.218729	0.515038
Bacteria|C	0.143431	0.331076	0.519597	0.115334	0.463125	0.521656	3.905884	2.641953
Bacteria|C	0	0	0	0	0	0.045116	0	0.019075
Bacteria|C	0	0	0	0	0	0	0.006249	0
Bacteria|Fi	0.003187	0.006075	0.013188	0	0.01077	0.016919	0.05312	0.038151
Bacteria|Fi	0.015937	0.024299	0.047476	0.019691	0.013463	0.022558	0.012499	0.022255
Bacteria|Fi	0.015937	0.003037	0.002638	0.002813	0	0.033837	0.009374	0.009538
Bacteria|Fi	0.095621	0.085047	0.026375	0.014065	0.099626	0.050756	0.456207	0.12717
Bacteria|Fi	0.701218	0.61659	0.321781	0.360066	0.280029	0.431423	2.249789	0.979208
Bacteria|Fi	0.009562	0.018224	0.023738	0.014065	0.002693	0.031017	0.015624	0.057226
Bacteria|Fi	0.009562	0	0.498497	0	0	0	0	0.012717
Bacteria|Fi	0.025499	0.018224	0.007913	0.030943	0.013463	0.014099	0.040621	0.034972
Bacteria|Fi	0.245426	0.160982	0.044838	2.455765	0.053852	0.437063	1.431116	0.71851
Bacteria|Fi	0.070122	0.060748	0.018463	0.036569	0.024233	0.070494	0.059369	0.054047
Bacteria|Fi	0.025499	0.01215	0.002638	0.019691	0.013463	0.011279	0.012499	0.003179
Bacteria|Fi	0.031874	0.060748	0.023738	0.061886	0.002693	0.00564	0.012499	0.095377
Bacteria|Fi	0	0.446496	0	0	0.002693	0	0	0.003179
Bacteria|G	0.070122	0.109346	0.031651	0.070325	0.045774	0.064855	0.103115	0.092198
Bacteria|G	0.012749	0.024299	0.026375	0.005626	0	0.008459	0.009374	0.006358
Bacteria|N	0.070122	0.063785	0.029013	0.047821	0.040389	0.062035	0.10624	0.050868
Bacteria|Pl	0.035061	0.048598	0.031651	0.033756	0.008078	0.039477	0.124988	0.076302
Bacteria|Pl	0.050998	0.018224	0	0.030943	0.002693	0.016919	0.043746	0.012717
Bacteria|Pl	0.012749	0.160982	0.100227	0.016878	0.013463	0.031017	0.290598	0.486425
Bacteria|Pl	0.006375	0.003037	0.005275	0	0.013463	0.014099	0.018748	0.012717
Bacteria|Pr	0.146618	0.115421	0.116052	0.095643	0.056544	0.059215	0.237478	0.228906
Bacteria|Pr	0.101995	0.063785	0.102864	0.081578	0.096933	0.101511	0.081242	0.20983
Bacteria|Pr	0.041436	0.015187	0.01055	0.005626	0.026926	0.059215	0.031247	0.022255
Bacteria|Pr	0.012749	0.018224	0.031651	0.115334	0.0727	0.050756	0.028122	0.015896

Bacteria|Pı	0.105183	0.112383	0.102864	0.126586	0.064622	0.197383	0.071868	0.08266
Bacteria|Pı	0.089246	0.097196	0.13979	0.140651	0.22887	0.076134	0.071868	0.120811
Bacteria|Pı	0.828712	0.759348	0.646199	0.573856	0.745847	0.789533	0.543699	0.286132
Bacteria|Pı	0.012749	0.009112	0.034288	0.011252	0.005385	0.008459	0.034372	0
Bacteria|Pı	1.17932	1.181545	1.606267	1.654055	1.405531	1.232236	1.359248	1.449736
Bacteria|Pı	0.618346	0.747198	0.516959	0.357253	0.430814	0.578051	0.818673	0.508679
Bacteria|Pı	0.137056	0.142757	0.029013	0.053447	0.067315	0.078953	0.143737	0.117632
Bacteria|Pı	0.025499	0.015187	0.084402	0	0	0	0.006249	0
Bacteria|Pı	0.152993	0.160982	0.097589	0.059073	0.140015	0.188924	0.146861	0.136708
Bacteria|Pı	0.583286	0.668226	0.458933	0.573856	0.390425	0.406046	1.081149	0.597698
Bacteria|Pı	1.870976	1.597667	2.706124	2.067569	3.966181	2.608279	1.224885	2.091944
Bacteria|Pı	0.411168	0.449534	0.656749	0.258798	0.403888	0.690841	0.462457	0.340179
Bacteria|Pı	0.127494	0.182243	0.126602	0.126586	0.037696	0.081773	0.196857	0.076302
Bacteria|Pı	2.339517	2.469398	2.85119	2.503587	1.577856	2.613918	2.837234	1.8535
Bacteria|Pı	0.06056	0.045561	0.087039	0.039382	0.161555	0.036657	0.034372	0.054047
Bacteria|Pı	0.350609	0.364487	0.39827	0.450083	0.45774	0.363749	0.349967	0.321104
Bacteria|Pı	0.10837	0.08201	0.089677	0.081578	0.064622	0.250959	0.118739	0.104915
Bacteria|Pı	0.21674	0.264253	0.087039	0.258798	0.309648	0.465261	0.078118	0.111274
Bacteria|Pı	2.537133	2.685053	3.347049	3.389687	4.24621	3.231446	2.081055	1.8535
Bacteria|Pı	0.414356	0.115421	0.551248	0.272863	0.250411	0.225581	0.137487	0.279774
Bacteria|Pı	0.382482	0.215655	0.56971	0.452896	0.511592	0.360929	0.481205	0.543651
Bacteria|Pı	0.098808	0.015187	0.036926	0.059073	0.056544	0.090232	0.024998	0.034972
Bacteria|Pı	0.283674	0.230842	0.400907	0.452896	0.640836	0.375028	0.178108	0.178038
Bacteria|Pı	0.022311	0.015187	0.007913	0.008439	0.005385	0.047936	0.040621	0.009538
Bacteria|Pı	0.226302	0.224767	0.184628	0.154716	0.131937	0.208662	0.353092	0.200292
Bacteria|Pı	0.038248	0.009112	0.007913	0.019691	0.005385	0.014099	0.015624	0.009538
Bacteria|Pı	0.015937	0.006075	0.015825	0.016878	0.002693	0.014099	0.031247	0.028613
Bacteria|Pı	0.114745	0.112383	0.055389	0.087204	0.06193	0.11279	0.099991	0.08266
Bacteria|Pı	0.92752	0.938554	0.662025	0.576669	0.339266	0.645725	1.415492	0.918802
Bacteria|Pı	0.050998	0.06986	0.0211	0.030943	0.105011	0.062035	0.024998	0.047689
Bacteria|Pı	0.022311	0.006075	0.002638	0	0	0	0.021873	0.012717
Bacteria|Pı	0.04781	0.006075	0.005275	0.002813	0.008078	0.033837	0.059369	0.028613
Bacteria|Pı	0.293236	0.258178	0.356069	0.295367	0.398503	0.487819	0.243727	0.203472
Bacteria|Pı	0.140244	0.276403	0.126602	0.090017	0.115781	0.301714	0.209355	0.171679
Bacteria|Pı	0.38567	0.413085	0.395632	0.495091	0.411966	0.462441	0.321845	0.232085
Bacteria|Pı	0.028686	0.039486	0.123965	0.008439	0.005385	0.011279	0.046871	0.038151
Bacteria|Pı	0.729904	0.561917	1.463839	1.561225	1.160505	1.012294	0.409337	0.241623
Bacteria|Pı	0.293236	0.236916	0.762251	0.41914	0.945098	0.397586	0.218729	0.489604
Bacteria|Pı	1.045452	0.744161	0.532785	0.604799	0.403888	0.809271	0.993657	0.712151
Bacteria|Pı	0.04781	0.006075	0.005275	0.033756	0.013463	0.036657	0.006249	0.012717
Bacteria|Pı	0.809588	0.446496	0.466846	1.158964	0.807776	1.17866	0.206231	0.149425
Bacteria|Pı	0.003187	0	0.002638	0.002813	0.005385	0	0.015624	0.08584
Bacteria|Pı	0	0	0	0	0.016156	0	0.003125	0.025434
Bacteria|Pı	0.038248	0.01215	0.023738	0.02813	0.137322	0.033837	0.009374	0.034972
Bacteria|Pı	5.612928	4.674544	5.145856	5.355988	5.654433	6.138619	4.69331	3.551218
Bacteria|Pı	0.586473	0.598366	1.123596	1.007061	1.408223	1.187119	0.53745	1.529217
Bacteria|Pı	0.057372	0.018224	0.034288	0.098456	0.01077	0.014099	0.024998	0.015896

Bacteria|Pı	0.012749	0.009112	0	0	0.005385	0.019738	0.071868	0.006358
Bacteria|Pı	0.223115	0.042523	0.092314	0.137838	0.756617	0.053575	0.081242	0.152604
Bacteria|Pı	6.004972	3.684354	6.301102	6.045177	8.139691	5.154523	2.102928	1.595981
Bacteria|Pı	0.082871	0.072897	0.176716	0.154716	0.134629	0.143808	0.153111	0.187576
Bacteria|Pı	7.78989	3.960757	5.072005	6.098624	9.698699	5.168622	4.818298	4.498633
Bacteria|Pı	0.041436	0.021262	0.026375	0.019691	0.024233	0.036657	0.015624	0.003179
Bacteria|Pı	0.172117	0.179206	0.189903	0.191285	0.282722	0.177645	0.071868	0.089019
Bacteria|Pı	0.140244	0.094159	0.123965	0.087204	0.088855	0.194564	0.049995	0.089019
Bacteria|Pı	0.019124	0.021262	0.026375	0.030943	0.002693	0.062035	0.015624	0.006358
Bacteria|Pı	5.826481	4.495338	4.655272	5.57259	7.733111	6.443154	2.027935	1.89801
Bacteria|Pı	0.015937	0.01215	0.01055	0.005626	0.01077	0.019738	0.003125	0.028613
Bacteria|Pı	0.079684	0.051636	0.039563	0	0	0.00282	0.015624	0.006358
Bacteria|Pı	4.095748	2.675941	2.859102	4.064812	5.554808	4.520077	3.1997	2.552934
Bacteria|Pı	0.012749	0.006075	0.007913	0.157529	0.021541	0.138168	0.05312	0.054047
Bacteria|Pı	0.012749	0.018224	0	0.005626	0.043081	0.070494	0.009374	0
Bacteria|Pı	1.641487	0.920329	0.873028	2.157585	1.650556	3.031243	0.665563	0.521396
Bacteria|Pı	0.092433	0.08201	0.050113	0.101269	0.037696	0.169186	0.028122	0.012717
Bacteria|Pı	0	0.006075	0.055389	0.02813	0.032311	0.025378	0.040621	0.009538
Bacteria|Pı	0.471728	0.464721	0.580261	0.554165	0.436199	0.380668	0.399963	0.282953
Bacteria|Pı	0.015937	0.003037	0.01055	0.008439	0.016156	0.025378	0.009374	0.015896
Bacteria|Pı	0.127494	0.188318	0.131877	0.109708	0.263874	0.219941	0.115614	0.130349
Bacteria|Pı	0.054185	0.12757	0	0.008439	0.140015	0.183284	0.009374	0.228906
Bacteria|Pı	0.567349	0.455609	0.727963	0.253172	0.123859	0.290435	0.668687	0.435557
Bacteria|Pı	0.121119	0.072897	0.102864	0.090017	0.110396	0.135349	0.093741	0.08266
Bacteria|Pı	0.124307	0.13972	0.044838	0.073138	0.056544	0.138168	0.15936	0.098557
Bacteria|Pı	0.105183	0.109346	0.224192	0.185659	0.568136	0.155087	0.131238	0.171679
Bacteria|Pı	0.073309	0.121496	0.050113	0.143464	0.261181	0.098692	0.087492	0.057226
Bacteria|Pı	0.04781	0.130608	0.189903	0.337562	0.401196	0.087413	0.234353	0.133528
Bacteria|Pı	4.889399	4.78389	3.128132	3.42907	2.601039	5.828446	4.515202	3.424048
Bacteria|Pı	0.082871	0.042523	0.068576	0.047821	0.032311	0.028198	0.253101	0.152604
Bacteria|Pı	0.031874	0.066823	0.005275	0.008439	0.013463	0.016919	0.040621	0.038151
Bacteria|Pı	0.038248	0.009112	0.01055	0.005626	0.008078	0.014099	0.006249	0.025434
Bacteria|Pı	0.015937	0.003037	0.01055	0	0.005385	0.014099	0.015624	0.022255
Bacteria|Pı	0.038248	0.021262	0.007913	0.016878	0.021541	0.019738	0.034372	0.019075
Bacteria|Pı	0.025499	0.018224	0.007913	0.025317	0.005385	0.028198	0.021873	0.025434
Bacteria|Pı	0.06056	0.051636	0.068576	0.050634	0.045774	0.073314	0.062494	0.057226
Bacteria|Pı	0.172117	0.027337	0.068576	0.132212	0.037696	0.042296	0.274974	0.060406
Bacteria|Pı	0.245426	0.194393	0.184628	0.135025	0.064622	0.172005	0.409337	0.270236
Bacteria|Pı	0.022311	0.018224	0.007913	0.011252	0.005385	0.014099	0.046871	0.015896
Bacteria|Pı	0.082871	0.054673	0.052751	0.090017	0.018848	0.053575	0.124988	0.092198
Bacteria|Pı	0.041436	0.036449	0.015825	0.042195	0.01077	0.036657	0.046871	0.034972
Bacteria|Pı	0.015937	0.009112	0.01055	0	0.002693	0.016919	0.021873	0.022255
Bacteria|Pı	0.070122	0.033411	0.031651	0.002813	0.013463	0.039477	0.068744	0.047689
Bacteria|Pı	0.114745	0.01215	0.026375	0.030943	0.086163	0.016919	0.031247	0.273415
Bacteria|Pı	0	0	0	0.005626	0	0	0.671812	0
Bacteria|Pı	0.012749	0.021262	0.007913	0.016878	0.005385	0.008459	0.006249	0.019075
Bacteria|Pı	0.146618	0.078972	0.158253	0.143464	0.315033	0.169186	0.131238	0.123991

Bacteria|Pı	0.117932	0.024299	0.01055	0.02813	0.169633	0.008459	0.065619	0.152604
Bacteria|Pı	0.197616	0.176169	0.218916	0.250359	0.93702	0.222761	0.593694	1.783557
Bacteria|Pı	0.235864	0.176169	0.16089	0.098456	0.029618	0.090232	0.337468	0.213009
Bacteria|Pı	1.415185	1.3972	1.24756	0.98737	1.074342	1.158922	2.118551	1.411585
Bacteria|Pı	2.183337	1.940892	1.706494	1.783454	0.837395	1.612903	2.890354	2.037897
Bacteria|Pı	0.930707	0.653039	0.809727	1.0155	0.966639	1.686217	0.571821	0.492783
Bacteria|Pı	0.079684	0.075935	0.224192	0.140651	0.30157	0.081773	0.093741	0.076302
Bacteria|Pı	0.028686	0.033411	0.081764	0.126586	0.067315	0.045116	0.071868	0.054047
Bacteria|Pı	0.124307	0.085047	0.12924	0.132212	0.113089	0.109971	0.084367	0.08266
Bacteria|Pı	0.532288	0.537618	0.714776	0.841093	0.670454	0.620347	0.487454	0.578623
Bacteria|Pı	0.274112	0.08201	0.092314	0.157529	0.32311	0.104331	0.134362	0.282953
Bacteria|Pı	0.025499	0.018224	0.005275	0.025317	0.01077	0.00282	0.021873	0.006358
Bacteria|Sp	0.050998	0.033411	0.092314	0.081578	0.134629	0.067674	0.103115	0.079481
Bacteria|Tl	0.009562	0.006075	0.018463	0.005626	0.102318	0.019738	0.003125	0.066764
Bacteria|V	0.038248	0.018224	0.002638	0.014065	0	0.028198	0.031247	0.025434
Bacteria|V	0.009562	0.006075	0.007913	0.002813	0.008078	0.011279	0.031247	0.019075
Bacteria|V	0.003187	0.015187	0.005275	0	0.002693	0	0.071868	0.015896
Bacteria|V	0	0.018224	0.007913	0.002813	0.008078	0.011279	0.037496	0.012717
Bacteria|V	0.006375	0	0.015825	0.008439	0.008078	0.016919	0.018748	0.019075
Bacteria|V	0.003187	0.006075	0.029013	0	0.008078	0.00564	0.031247	0.031792

B	B	B	B	C	C	C	C	C
91.73114	91.534	90.49021	87.5035	93.02117	94.14121	91.43977	92.36336	93.58157
0.316654	0.156011	0.269781	0.466056	0.283434	0.16465	0.715021	0.304431	0.112172
27.88648	23.65321	24.43361	22.79323	28.65282	22.47469	26.11829	28.28341	28.3166
0.029873	0.025471	0.018394	0.012428	0.017353	0.021953	0.028601	0.02872	0.030095
8.412248	7.198803	3.363071	2.808762	5.396807	5.89446	4.573275	3.722106	4.325463
0.008962	0.105069	0.012263	0.006214	0.014461	0.010977	0.022881	0.020104	0.008208
0.761763	0.770504	0.542629	0.686655	0.873438	0.532367	0.732182	0.574399	0.352932
2.428678	1.222618	4.01913	4.881156	4.234151	3.913175	3.134653	2.363652	4.579902
0.011949	0.012736	0.015328	0.018642	0.011569	0.010977	0.082942	0.002872	0.01368
1.989544	2.633087	1.11898	3.548237	0.569759	0.241486	0.777943	0.660559	0.39397
0.074683	0.101885	0.079708	0.133603	0.069412	0.120743	0.085803	0.094776	0.079341
0.080657	0.050942	0.104234	0.093211	0.072304	0.060372	0.074362	0.1436	0.065662
0.340553	0.178299	0.260584	0.444306	0.216913	0.137208	0.303169	0.195296	0.117644
49.08738	55.11653	55.87541	51.16048	52.32242	60.25082	54.38165	55.64491	54.99986
0.113518	0.181482	0.134891	0.093211	0.104118	0.153673	0.165885	0.152216	0.06019
0.005975	0.01592	0.036788	0	0.017353	0.002744	0.034321	0.002872	0.002736
0.182226	0.111437	0.205402	0.357309	0.164854	0.150929	0.208786	0.169448	0.123116
0.068708	0.044575	0.104234	0.260991	0.147501	0.054883	0.134424	0.112008	0.04651
0.247946	0.111437	0.165548	0.205064	0.135932	0.109766	0.580597	0.192424	0.065662
0.681105	0.84055	0.763359	0.925897	0.734614	0.71897	0.900927	0.631839	0.580011
25.06945	20.81954	21.44149	18.78515	25.67388	20.12568	22.95504	25.90827	25.78315
0.675131	0.569918	0.542629	0.848221	0.587112	0.452787	0.695001	0.488239	0.388498
0.053771	0.031839	0.030657	0.086997	0.046275	0.019209	0.045761	0.045952	0.073869
1.40702	1.391365	1.655477	2.146963	1.610944	1.158036	1.521565	1.20911	1.491067
0.029873	0.025471	0.018394	0.012428	0.017353	0.021953	0.028601	0.02872	0.030095
0.474981	0.468034	0.291241	0.189529	0.300787	0.436322	0.303169	0.361871	0.194249
1.335325	2.101375	1.03314	0.773652	1.003586	1.089432	1.470084	1.392918	0.642937
6.497386	4.530693	1.989638	1.783439	3.991208	4.168382	2.742821	1.912749	3.417143
0.104556	0.098701	0.049051	0.062141	0.101226	0.200324	0.057202	0.054568	0.071133
0.008962	0.012736	0.012263	0.006214	0.014461	0.010977	0.017161	0.020104	0.005472
0	0.092333	0	0	0	0	0.00572	0	0.002736
0.020911	0.003184	0.02146	0.012428	0.014461	0.005488	0.0143	0.011488	0.005472
0.672143	0.655884	0.46292	0.500233	0.76932	0.491205	0.640659	0.519831	0.309157
0.050784	0.012736	0.030657	0.124281	0.028922	0.010977	0.042901	0.011488	0.010944
0.017924	0.098701	0.027591	0.049713	0.060736	0.024697	0.034321	0.031592	0.027359
0.116505	0.012736	0.472117	0.288954	0.008677	0.035674	0.00858	0.292944	0.134059
2.309186	1.206699	3.215917	4.542489	4.211013	3.877501	3.114632	2.059221	4.355558
0.002987	0.003184	0.119562	0.040391	0.014461	0	0.01144	0.011488	0.068398
0	0	0.211533	0.009321	0	0	0	0	0.021887
0.011949	0.012736	0.015328	0.018642	0.011569	0.010977	0.082942	0.002872	0.01368
1.843167	2.626719	1.11898	3.54513	0.569759	0.241486	0.775083	0.660559	0.39397
0.146378	0.006368	0	0.003107	0	0	0.00286	0	0
0.059746	0.092333	0.076642	0.105639	0.06652	0.090557	0.065782	0.0718	0.071133
0.014937	0.009552	0.003066	0.027963	0.002892	0.030186	0.020021	0.022976	0.008208
0.080657	0.050942	0.104234	0.093211	0.072304	0.060372	0.074362	0.1436	0.065662
0.050784	0.066862	0.049051	0.086997	0.057844	0.019209	0.068642	0.025848	0.032831

0.005975	0.01592	0.033723	0.03107	0.014461	0.005488	0.0143	0.017232	0.002736
0.283794	0.095517	0.17781	0.326239	0.144609	0.112511	0.220227	0.152216	0.082077
11.37267	13.24185	16.60075	15.08467	11.62078	13.2296	13.83137	15.06361	13.98594
26.3301	28.04699	25.87756	21.93879	30.15676	35.7674	27.09072	28.66251	29.74474
4.627334	5.842461	5.187161	5.278857	4.980333	4.854422	5.685848	4.615296	4.473202
6.757282	7.985227	8.209939	8.858164	5.564553	6.399385	7.77371	7.303484	6.795984
0.113518	0.181482	0.134891	0.093211	0.104118	0.153673	0.165885	0.152216	0.06019
0.005975	0.01592	0.036788	0	0.017353	0.002744	0.034321	0.002872	0.002736
0.023898	0.022287	0.02146	0.040391	0.028922	0.019209	0.017161	0.025848	0.038303
0.053771	0.022287	0.030657	0.118067	0.034706	0.035674	0.048621	0.040208	0.01368
0.071695	0.054126	0.110365	0.152245	0.069412	0.052139	0.128704	0.068928	0.049246
0.03286	0.012736	0.04292	0.046606	0.031814	0.043907	0.0143	0.034464	0.021887
0.029873	0.009552	0.033723	0.074569	0.034706	0.027442	0.054342	0.04308	0.016415
0.038835	0.035023	0.070511	0.186422	0.112795	0.027442	0.080082	0.068928	0.030095
0.247946	0.111437	0.165548	0.205064	0.135932	0.109766	0.580597	0.192424	0.065662
0.681105	0.84055	0.763359	0.925897	0.734614	0.71897	0.900927	0.631839	0.580011
24.88723	20.57756	21.15638	18.53969	25.42515	19.86224	22.59467	25.6584	25.6573
0.182226	0.241977	0.28511	0.245456	0.248727	0.26344	0.360371	0.249864	0.125852
0.675131	0.569918	0.542629	0.848221	0.587112	0.452787	0.695001	0.488239	0.388498
0.053771	0.031839	0.030657	0.086997	0.046275	0.019209	0.045761	0.045952	0.073869
0.854369	0.824631	0.996352	1.118533	1.072999	0.7519	0.920947	0.789799	0.755109
0.552651	0.566735	0.659125	1.028429	0.537945	0.406136	0.600618	0.419311	0.735958
0.029873	0.025471	0.018394	0.012428	0.017353	0.021953	0.028601	0.02872	0.030095
0.474981	0.468034	0.291241	0.189529	0.300787	0.436322	0.303169	0.361871	0.194249
1.335325	2.101375	1.03314	0.773652	1.003586	1.089432	1.470084	1.392918	0.642937
6.497386	4.530693	1.989638	1.783439	3.991208	4.168382	2.742821	1.912749	3.417143
0.104556	0.098701	0.049051	0.062141	0.101226	0.200324	0.057202	0.054568	0.071133
0.008962	0.012736	0.012263	0.006214	0.014461	0.010977	0.017161	0.020104	0.005472
0	0.092333	0	0	0	0	0.00572	0	0.002736
0.020911	0.003184	0.02146	0.012428	0.014461	0.005488	0.0143	0.011488	0.005472
0.600448	0.601758	0.413869	0.456735	0.656525	0.436322	0.549136	0.430799	0.268119
0.071695	0.054126	0.049051	0.043499	0.112795	0.054883	0.091523	0.089032	0.041039
0.050784	0.012736	0.030657	0.124281	0.028922	0.010977	0.042901	0.011488	0.010944
0.005975	0.07323	0.012263	0.018642	0.046275	0.024697	0.025741	0.020104	0.027359
0.011949	0.025471	0.015328	0.03107	0.014461	0	0.00858	0.011488	0
0.116505	0.012736	0.472117	0.288954	0.008677	0.035674	0.00858	0.292944	0.134059
2.309186	1.206699	3.215917	4.542489	4.211013	3.877501	3.114632	2.059221	4.355558
0.002987	0.003184	0.119562	0.040391	0.014461	0	0.01144	0.011488	0.068398
0	0	0.211533	0.009321	0	0	0	0	0.021887
0.011949	0.012736	0.015328	0.018642	0.011569	0.010977	0.082942	0.002872	0.01368
1.843167	2.626719	1.11898	3.54513	0.569759	0.241486	0.775083	0.660559	0.39397
0.146378	0.006368	0	0.003107	0	0	0.00286	0	0
0.059746	0.092333	0.076642	0.105639	0.06652	0.090557	0.065782	0.0718	0.071133
0.014937	0.009552	0.003066	0.027963	0.002892	0.030186	0.020021	0.022976	0.008208
0.080657	0.050942	0.104234	0.093211	0.072304	0.060372	0.074362	0.1436	0.065662
0.050784	0.066862	0.049051	0.086997	0.057844	0.019209	0.068642	0.025848	0.032831
0.005975	0.01592	0.033723	0.03107	0.014461	0.005488	0.0143	0.017232	0.002736

0.283794	0.095517	0.17781	0.326239	0.144609	0.112511	0.220227	0.152216	0.082077
0.125467	0.248344	0.125694	0.155352	0.109903	0.115255	0.157305	0.160832	0.142267
0.57655	0.681355	1.091388	0.730154	0.757751	0.897341	0.712161	0.801287	0.845394
0.005975	0.01592	0	0.006214	0.005784	0	0.022881	0.025848	0
8.235997	9.653591	12.37929	10.95231	8.569528	9.524986	10.23624	10.37365	10.45115
0.227035	0.267448	0.291241	0.301383	0.211129	0.23051	0.300309	0.298687	0.145003
0.976848	0.866021	0.953432	1.267671	0.821379	0.834225	1.109713	1.25219	0.626522
0.008962	0.035023	0	0	0.005784	0.005488	0.01144	0.008616	0.01368
1.215833	1.474147	1.759711	1.671586	1.139519	1.6218	1.281318	2.142508	1.761922
0.699029	0.751401	0.870658	0.960075	0.754859	0.779342	1.129733	0.944886	0.850866
0.017924	0.022287	0	0.003107	0.008677	0.005488	0.01144	0.002872	0.002736
24.32562	25.93288	23.5231	19.53084	28.15537	33.49249	24.02471	26.27301	27.64357
0.504854	0.480769	0.533431	0.456735	0.506131	0.584506	0.603478	0.539935	0.536237
0.011949	0.009552	0.02146	0.015535	0.002892	0.008232	0.01144	0.011488	0
0.182226	0.200586	0.17781	0.121174	0.274757	0.332044	0.480494	0.27284	0.235288
0.397311	0.471218	0.557957	0.646264	0.309463	0.395159	0.600618	0.413567	0.292742
0.07767	0.07323	0.082774	0.05282	0.057844	0.068604	0.085803	0.097648	0.084813
0.113518	0.105069	0.110365	0.152245	0.086765	0.101534	0.143004	0.106264	0.098493
0.235997	0.308839	0.251387	0.152245	0.338385	0.633901	0.214506	0.18668	0.284534
0.107543	0.24516	0.144088	0.102532	0.196668	0.397903	0.214506	0.209656	0.175098
3.877521	4.877738	4.233729	4.430635	4.089542	3.476853	4.856424	3.974841	3.690733
0.382375	0.369333	0.530366	0.525089	0.312355	0.31009	0.360371	0.232632	0.298213
0.023898	0.041391	0.027591	0.068355	0.043383	0.035674	0.040041	0.011488	0.024623
0.002987	0.009552	0.02146	0.015535	0.008677	0.002744	0.020021	0.008616	0.010944
0.588499	0.366149	0.067445	0.093211	0.300787	0.090557	0.191626	0.097648	0.04651
0	0	0	0	0	0	0	0	0
0.017924	0.009552	0.024526	0.018642	0.031814	0.021953	0.017161	0.037336	0.008208
0.555639	2.29241	1.09752	1.920149	0.442503	0.373206	0.577737	0.384847	1.108041
0.185213	0.156011	0.134891	0.379059	0.170639	0.06586	0.200206	0.077544	0.095757
5.40702	5.151554	6.864098	6.431568	4.610134	5.845065	6.76696	6.697493	5.526525
0.113518	0.181482	0.134891	0.093211	0.104118	0.153673	0.165885	0.152216	0.06019
0.005975	0.01592	0.036788	0	0.017353	0.002744	0.034321	0.002872	0.002736
0.023898	0.022287	0.02146	0.040391	0.028922	0.019209	0.017161	0.025848	0.038303
0.053771	0.022287	0.030657	0.118067	0.034706	0.035674	0.048621	0.040208	0.01368
0.071695	0.054126	0.110365	0.152245	0.069412	0.052139	0.128704	0.068928	0.049246
0.03286	0.012736	0.04292	0.046606	0.031814	0.043907	0.0143	0.034464	0.021887
0.029873	0.009552	0.033723	0.074569	0.034706	0.027442	0.054342	0.04308	0.016415
0.038835	0.035023	0.070511	0.186422	0.112795	0.027442	0.080082	0.068928	0.030095
0.247946	0.111437	0.165548	0.205064	0.135932	0.109766	0.580597	0.192424	0.065662
0.292756	0.353413	0.300438	0.425664	0.31814	0.326555	0.466194	0.295816	0.238024
0.134429	0.140092	0.137956	0.155352	0.124364	0.038418	0.068642	0.080416	0.084813
0.161314	0.241977	0.257519	0.236135	0.202453	0.268928	0.220227	0.198168	0.16689
0.011949	0.022287	0.006131	0.006214	0.005784	0	0.00858	0.005744	0
0.080657	0.082781	0.061314	0.102532	0.083873	0.085069	0.137284	0.051696	0.090285
0.071695	0.120988	0.076642	0.127389	0.104118	0.063116	0.068642	0.040208	0.084813
2.258402	3.027891	3.792268	3.100823	5.350532	3.416481	4.421691	3.963353	3.056004
0.065721	0.079598	0.110365	0.099425	0.179315	0.013721	0.088663	0.025848	0.049246

0.409261	0.283367	0.260584	0.211279	0.572652	0.386927	0.371811	0.278584	0.631994
0.083645	0.066862	0.119562	0.242349	0.078089	0.063116	0.091523	0.094776	0.109436
0.07767	0.035023	0.012263	0.040391	0.037598	0.035674	0.040041	0.120624	0.079341
0.07767	0.060494	0.082774	0.111853	0.080981	0.079581	0.088663	0.08616	0.054718
0.507842	0.694091	0.579417	0.487805	1.075891	1.078456	0.789383	0.738103	0.875489
0.845407	0.792792	0.907447	0.789188	0.705692	0.661343	0.960988	0.913294	0.716807
0.170276	0.168747	0.229927	0.170887	0.138825	0.03293	0.137284	0.209656	0.117644
6.401792	4.323739	4.711978	4.188286	5.09602	3.688153	4.885025	4.241937	5.017647
0.283794	0.267448	0.254453	0.36663	0.29211	0.189347	0.529116	0.278584	0.22708
0.026886	0.082781	0.045985	0.040391	0.173531	0.021953	0.122984	0.106264	0.027359
2.473488	2.212812	3.111683	2.491844	2.429431	2.425839	2.977348	3.213763	2.965719
0.158327	0.200586	0.469052	0.326239	0.202453	0.255207	0.280288	0.20104	0.093021
0.005975	0.01592	0.003066	0.024856	0.008677	0.005488	0.01144	0.008616	0.002736
1.843167	1.916709	1.995769	1.820724	2.848797	1.789193	2.408191	2.323444	5.10246
8.567588	5.224783	3.44891	3.197142	4.633272	4.17387	3.523624	7.728539	4.796038
0.104556	0.152827	0.144088	0.108746	0.211129	0.09879	0.125844	0.083288	0.169626
0.45407	0.850102	0.800147	0.593444	1.206039	1.383058	0.67212	1.002326	1.480124
0.182226	0.241977	0.28511	0.245456	0.248727	0.26344	0.360371	0.249864	0.125852
0.675131	0.569918	0.542629	0.848221	0.587112	0.452787	0.695001	0.488239	0.388498
0.053771	0.031839	0.030657	0.086997	0.046275	0.019209	0.045761	0.045952	0.073869
0.005975	0.009552	0.018394	0.009321	0.014461	0.002744	0.01144	0.01436	0.016415
0.848394	0.815079	0.977958	1.109212	1.058538	0.749156	0.909507	0.775439	0.738694
0.259895	0.270632	0.28511	0.453627	0.335493	0.24423	0.33177	0.238376	0.424065
0.074683	0.060494	0.088905	0.152245	0.040491	0.024697	0.051482	0.054568	0.062926
0.218073	0.235609	0.28511	0.422557	0.161962	0.137208	0.217366	0.126368	0.248967
0.029873	0.025471	0.018394	0.012428	0.017353	0.021953	0.028601	0.02872	0.030095
0.474981	0.468034	0.291241	0.189529	0.300787	0.436322	0.303169	0.361871	0.194249
0.050784	0.01592	0.036788	0.027963	0.063628	0.074092	0.031461	0.04308	0.051982
1.284541	2.085456	0.996352	0.745689	0.939958	1.01534	1.438623	1.349838	0.590955
0.020911	0.041391	0.039854	0.009321	0.005784	0.002744	0.045761	0.235504	0.01368
0.152353	0.117804	0.058248	0.093211	0.112795	0.225021	0.134424	0.160832	0.134059
6.324122	4.371498	1.891536	1.680907	3.872628	3.940616	2.562636	1.516413	3.269404
0.104556	0.098701	0.049051	0.062141	0.101226	0.200324	0.057202	0.054568	0.071133
0.008962	0.012736	0.012263	0.006214	0.014461	0.010977	0.017161	0.020104	0.005472
0	0.092333	0	0	0	0	0.00572	0	0.002736
0.020911	0.003184	0.02146	0.012428	0.014461	0.005488	0.0143	0.011488	0.005472
0.516804	0.512608	0.346424	0.400808	0.529269	0.362229	0.460474	0.356127	0.216136
0.083645	0.089149	0.067445	0.055927	0.127256	0.074092	0.088663	0.074672	0.051982
0.071695	0.054126	0.049051	0.043499	0.112795	0.054883	0.091523	0.089032	0.041039
0.050784	0.012736	0.030657	0.124281	0.028922	0.010977	0.042901	0.011488	0.010944
0.005975	0.07323	0.012263	0.018642	0.046275	0.024697	0.025741	0.020104	0.027359
0.011949	0.025471	0.015328	0.03107	0.014461	0	0.00858	0.011488	0
0.116505	0.012736	0.472117	0.288954	0.008677	0.035674	0.00858	0.292944	0.134059
2.309186	1.206699	3.215917	4.542489	4.211013	3.877501	3.114632	2.059221	4.355558
0.002987	0.003184	0.119562	0.040391	0.014461	0	0.01144	0.011488	0.068398
0	0	0.211533	0.009321	0	0	0	0	0.021887
0.011949	0.012736	0.015328	0.018642	0.011569	0.010977	0.082942	0.002872	0.01368

0.03286	0.028655	0.02146	0.040391	0	0.008232	0.01144	0.022976	0.027359
0.002987	0.01592	0.039854	0.003107	0	0	0.00286	0.040208	0
1.398058	1.620606	0.781753	2.836725	0.300787	0.137208	0.471914	0.318791	0.191513
0.304705	0.843734	0.180876	0.459842	0.211129	0.063116	0.228807	0.183808	0.134059
0.050784	0.095517	0.076642	0.149138	0.046275	0.027442	0.028601	0.066056	0.021887
0.053771	0.022287	0.018394	0.055927	0.011569	0.005488	0.031461	0.02872	0.019151
0.146378	0.006368	0	0.003107	0	0	0.00286	0	0
0.059746	0.092333	0.076642	0.105639	0.06652	0.090557	0.065782	0.0718	0.071133
0.014937	0.009552	0.003066	0.027963	0.002892	0.030186	0.020021	0.022976	0.008208
0.080657	0.050942	0.104234	0.093211	0.072304	0.060372	0.074362	0.1436	0.065662
0.050784	0.066862	0.049051	0.086997	0.057844	0.019209	0.068642	0.025848	0.032831
0.005975	0.01592	0.033723	0.03107	0.014461	0.005488	0.0143	0.017232	0.002736
0.283794	0.095517	0.17781	0.326239	0.144609	0.112511	0.220227	0.152216	0.082077
0.125467	0.248344	0.125694	0.155352	0.109903	0.115255	0.157305	0.160832	0.142267
0.57655	0.681355	1.091388	0.730154	0.757751	0.897341	0.712161	0.801287	0.845394
0.005975	0.01592	0	0.006214	0.005784	0	0.022881	0.025848	0
0.809559	0.964722	1.364236	1.081249	0.911037	0.88362	1.34424	1.145926	1.30229
0.606423	0.690907	0.766424	0.963182	0.714368	0.691529	0.846585	0.723743	0.51435
3.453323	4.199567	5.171832	4.6357	3.612332	3.657968	4.553255	4.356817	3.912342
0.026886	0.022287	0.052117	0.034177	0.072304	0.090557	0.117263	0.068928	0.068398
0.525765	0.592206	0.729636	0.518875	0.633387	0.655855	0.614918	0.766823	0.670296
2.802091	3.17435	4.28278	3.703589	2.617422	3.539969	2.751401	3.305666	3.972532
0.011949	0.009552	0.012263	0.015535	0.008677	0.005488	0.00858	0.005744	0.010944
0.212099	0.238793	0.257519	0.267205	0.190884	0.2113	0.277428	0.275712	0.128587
0.014937	0.028655	0.033723	0.034177	0.020245	0.019209	0.022881	0.022976	0.016415
0.098581	0.079598	0.110365	0.142924	0.072304	0.074092	0.102963	0.10052	0.057454
0.878267	0.786424	0.843067	1.124748	0.749075	0.760133	1.00675	1.15167	0.569068
0.008962	0.035023	0	0	0.005784	0.005488	0.01144	0.008616	0.01368
0.020911	0.025471	0.030657	0.009321	0	0	0.01144	0.01436	0.019151
0.167289	0.184666	0.321898	0.208172	0.130148	0.216789	0.234527	0.235504	0.224344
1.027633	1.264009	1.407155	1.454094	1.009371	1.405011	1.035351	1.892645	1.518426
0.699029	0.751401	0.870658	0.960075	0.754859	0.779342	1.129733	0.944886	0.850866
0.017924	0.022287	0	0.003107	0.008677	0.005488	0.01144	0.002872	0.002736
0.271845	0.241977	0.331095	0.323132	0.344169	0.425345	0.274568	0.419311	0.435009
0.005975	0.264264	0.015328	0.11496	0.008677	0.005488	0.00286	0.022976	0
0.020911	0.044575	0.131825	0.009321	0.031814	0.005488	0.051482	0.031592	0.035567
19.27707	20.73357	19.59288	16.06338	21.64507	26.04484	19.43428	21.58879	22.50554
4.749813	4.648497	3.451976	3.02004	6.125636	7.011333	4.261526	4.210345	4.667451
0.504854	0.480769	0.533431	0.456735	0.506131	0.584506	0.603478	0.539935	0.536237
0.011949	0.009552	0.02146	0.015535	0.002892	0.008232	0.01144	0.011488	0
0.182226	0.200586	0.17781	0.121174	0.274757	0.332044	0.480494	0.27284	0.235288
0.397311	0.471218	0.557957	0.646264	0.309463	0.395159	0.600618	0.413567	0.292742
0.07767	0.07323	0.082774	0.05282	0.057844	0.068604	0.085803	0.097648	0.084813
0.113518	0.105069	0.110365	0.152245	0.086765	0.101534	0.143004	0.106264	0.098493
0.15534	0.229241	0.156351	0.108746	0.260296	0.504926	0.145864	0.094776	0.216136
0.080657	0.079598	0.095037	0.043499	0.078089	0.128976	0.068642	0.091904	0.068398
0.107543	0.24516	0.144088	0.102532	0.196668	0.397903	0.214506	0.209656	0.175098

3.369679	4.463831	3.740151	3.840298	3.699098	3.098159	4.40167	3.61297	3.365161
0.191187	0.152827	0.190073	0.121174	0.214021	0.137208	0.145864	0.12924	0.084813
0.068708	0.01592	0.049051	0.062141	0.020245	0.019209	0.034321	0.01436	0.021887
0.047797	0.050942	0.030657	0.043499	0.063628	0.052139	0.068642	0.02872	0.065662
0.008962	0.006368	0.024526	0.040391	0.023137	0.016465	0.028601	0.011488	0.041039
0.191187	0.18785	0.19927	0.323132	0.069412	0.153673	0.177325	0.178064	0.112172
0.268857	0.276999	0.340292	0.397701	0.222698	0.2113	0.248827	0.137856	0.22708
0.038835	0.019103	0.070511	0.027963	0.008677	0.013721	0.01144	0.020104	0.024623
0.074683	0.07323	0.119562	0.099425	0.080981	0.085069	0.100103	0.074672	0.04651
0.023898	0.041391	0.027591	0.068355	0.043383	0.035674	0.040041	0.011488	0.024623
0.002987	0.009552	0.02146	0.015535	0.008677	0.002744	0.020021	0.008616	0.010944
0.04481	0.060494	0.033723	0.068355	0.02603	0.054883	0.088663	0.063184	0.024623
0.543689	0.305655	0.033723	0.024856	0.274757	0.035674	0.102963	0.034464	0.021887
0	0	0	0	0	0	0	0	0
0.017924	0.009552	0.024526	0.018642	0.031814	0.021953	0.017161	0.037336	0.008208
0.212099	0.264264	0.144088	0.139817	0.326816	0.227765	0.131564	0.180936	0.221608
0.34354	2.028146	0.953432	1.780332	0.115687	0.145441	0.446173	0.203912	0.886433
0.185213	0.156011	0.134891	0.379059	0.170639	0.06586	0.200206	0.077544	0.095757
3.50112	3.457718	4.154021	4.337424	3.02522	3.910431	4.767761	4.402769	3.373369
1.9059	1.693836	2.710077	2.094143	1.584914	1.934634	1.999199	2.294724	2.153156
0.113518	0.181482	0.134891	0.093211	0.104118	0.153673	0.165885	0.152216	0.06019
0.005975	0.01592	0.036788	0	0.017353	0.002744	0.034321	0.002872	0.002736
0.023898	0.022287	0.02146	0.040391	0.028922	0.019209	0.017161	0.025848	0.038303
0.053771	0.022287	0.030657	0.118067	0.034706	0.035674	0.048621	0.040208	0.01368
0.071695	0.054126	0.110365	0.152245	0.069412	0.052139	0.128704	0.068928	0.049246
0.03286	0.012736	0.04292	0.046606	0.031814	0.043907	0.0143	0.034464	0.021887
0.029873	0.009552	0.033723	0.074569	0.034706	0.027442	0.054342	0.04308	0.016415
0.038835	0.035023	0.070511	0.186422	0.112795	0.027442	0.080082	0.068928	0.030095
0.247946	0.111437	0.165548	0.205064	0.135932	0.109766	0.580597	0.192424	0.065662
0.292756	0.353413	0.300438	0.425664	0.31814	0.326555	0.466194	0.295816	0.238024
0.134429	0.140092	0.137956	0.155352	0.124364	0.038418	0.068642	0.080416	0.084813
0.161314	0.241977	0.257519	0.236135	0.202453	0.268928	0.220227	0.198168	0.16689
0.011949	0.022287	0.006131	0.006214	0.005784	0	0.00858	0.005744	0
0.023898	0.028655	0.018394	0.049713	0.037598	0.038418	0.057202	0.020104	0.043774
0.056759	0.054126	0.04292	0.05282	0.046275	0.046651	0.080082	0.031592	0.04651
0.071695	0.120988	0.076642	0.127389	0.104118	0.063116	0.068642	0.040208	0.084813
0.304705	0.235609	0.374015	0.382166	0.633387	0.480228	0.497655	0.304431	0.155946
0.167289	0.531712	0.251387	0.28274	0.838732	0.13172	0.32891	0.370487	0.246231
1.777446	2.254203	3.166866	2.417275	3.878413	2.801789	3.552225	3.279818	2.653826
0.008962	0.006368	0	0.018642	0	0.002744	0.042901	0.008616	0
0.065721	0.079598	0.110365	0.099425	0.179315	0.013721	0.088663	0.025848	0.049246
0.400299	0.276999	0.254453	0.183315	0.569759	0.386927	0.360371	0.269968	0.599163
0.008962	0.006368	0.006131	0.027963	0.002892	0	0.01144	0.008616	0.032831
0.071695	0.05731	0.107299	0.223707	0.06652	0.057627	0.085803	0.077544	0.079341
0.011949	0.009552	0.012263	0.018642	0.011569	0.005488	0.00572	0.017232	0.030095
0.07767	0.035023	0.012263	0.040391	0.037598	0.035674	0.040041	0.120624	0.079341
0.011949	0.003184	0.012263	0.03107	0.014461	0.013721	0.00858	0.005744	0.008208

0.017924	0.006368	0.003066	0.009321	0.020245	0.021953	0.00858	0.025848	0.002736
0.047797	0.050942	0.067445	0.071462	0.046275	0.043907	0.071502	0.054568	0.043774
0.507842	0.694091	0.579417	0.487805	1.075891	1.078456	0.789383	0.738103	0.875489
0.053771	0.003184	0.101168	0.015535	0.008677	0.008232	0.00858	0.01436	0.019151
0.761763	0.71001	0.754162	0.664906	0.659417	0.631157	0.869466	0.827135	0.615578
0.029873	0.070046	0.045985	0.099425	0.034706	0.021953	0.071502	0.051696	0.051982
0	0.009552	0.006131	0.009321	0.002892	0	0.01144	0.020104	0.030095
0.152353	0.133724	0.217665	0.152245	0.115687	0.03293	0.122984	0.203912	0.112172
0.017924	0.035023	0.012263	0.018642	0.023137	0	0.0143	0.005744	0.005472
1.478715	0.990194	0.99022	0.764331	0.96888	1.042781	1.189795	1.062638	0.590955
2.655713	1.49325	1.808762	1.472736	1.833642	0.941247	1.430042	1.504925	2.320046
0.367438	0.280183	0.321898	0.332453	0.326816	0.332044	0.406132	0.321663	0.292742
0.92009	0.780056	0.935038	0.70219	1.139519	0.902829	0.975289	0.763951	1.343328
0.035848	0.01592	0.012263	0.006214	0.008677	0.013721	0.0143	0	0.065662
0.074683	0.01592	0.024526	0.021749	0.002892	0.013721	0.00286	0.020104	0
0.029873	0.019103	0.003066	0.009321	0.023137	0.005488	0.045761	0.008616	0.002736
0.412248	0.3757	0.346424	0.438092	0.355738	0.257951	0.406132	0.267096	0.224344
0.427184	0.353413	0.269781	0.441199	0.436719	0.178371	0.414712	0.292944	0.177834
0.283794	0.267448	0.254453	0.36663	0.29211	0.189347	0.529116	0.278584	0.22708
0.026886	0.082781	0.045985	0.040391	0.173531	0.021953	0.122984	0.106264	0.027359
1.323376	0.951987	1.753579	1.152711	1.188686	1.023572	1.475804	1.35271	1.389839
0.256908	0.254712	0.324964	0.285847	0.268973	0.222277	0.400412	0.347511	0.224344
0.457058	0.490321	0.588614	0.487805	0.616034	0.867155	0.563437	0.832879	1.020492
0.29873	0.410723	0.331095	0.45052	0.240051	0.192091	0.311749	0.514087	0.218872
0.137416	0.105069	0.113431	0.11496	0.115687	0.120743	0.225947	0.166576	0.112172
0.005975	0.009552	0.006131	0.046606	0.037598	0	0.031461	0.002872	0
0.128454	0.178299	0.44146	0.273419	0.135932	0.235998	0.214506	0.178064	0.084813
0.023898	0.012736	0.02146	0.006214	0.028922	0.019209	0.034321	0.020104	0.008208
0.005975	0.01592	0.003066	0.024856	0.008677	0.005488	0.01144	0.008616	0.002736
1.40702	1.053872	1.336644	1.134069	1.639866	0.636646	1.515845	1.435998	0.733222
0.185213	0.585838	0.355621	0.391487	0.919713	0.815016	0.606338	0.427927	4.147629
0.250934	0.276999	0.303504	0.295169	0.289218	0.337532	0.286008	0.459519	0.221608
0.173264	0.07323	0.104234	0.099425	0.150393	0.043907	0.071502	0.453775	0.057454
0.224048	0.423459	0.521169	0.2206	0.462749	0.633901	0.34893	1.413022	0.533501
8.170276	4.728095	2.823508	2.877117	4.02013	3.496062	3.103192	5.861742	4.205083
0.014937	0.009552	0.027591	0.015535	0.002892	0.010977	0.031461	0.011488	0.079341
0.089619	0.143276	0.116497	0.093211	0.208237	0.087813	0.094383	0.0718	0.090285
0.020911	0.01592	0.02146	0.009321	0.020245	0.005488	0.0143	0.017232	0.008208
0.433159	0.834182	0.778687	0.584123	1.185794	1.377569	0.657819	0.985094	1.471916
0.182226	0.241977	0.28511	0.245456	0.248727	0.26344	0.360371	0.249864	0.125852
0.675131	0.569918	0.542629	0.848221	0.587112	0.452787	0.695001	0.488239	0.388498
0.053771	0.031839	0.030657	0.086997	0.046275	0.019209	0.045761	0.045952	0.073869
0.005975	0.009552	0.018394	0.009321	0.014461	0.002744	0.01144	0.01436	0.016415
0.848394	0.815079	0.977958	1.109212	1.058538	0.749156	0.909507	0.775439	0.738694
0.259895	0.270632	0.28511	0.453627	0.335493	0.24423	0.33177	0.238376	0.424065
0.074683	0.060494	0.088905	0.152245	0.040491	0.024697	0.051482	0.054568	0.062926
0.218073	0.235609	0.28511	0.422557	0.161962	0.137208	0.217366	0.126368	0.248967

0.029873	0.025471	0.018394	0.012428	0.017353	0.021953	0.028601	0.02872	0.030095
0.059746	0.054126	0.018394	0.040391	0.031814	0.046651	0.037181	0.025848	0.016415
0.415235	0.413907	0.272847	0.149138	0.268973	0.389671	0.265988	0.336023	0.177834
0.050784	0.01592	0.036788	0.027963	0.063628	0.074092	0.031461	0.04308	0.051982
1.284541	2.085456	0.996352	0.745689	0.939958	1.01534	1.438623	1.349838	0.590955
0.020911	0.041391	0.039854	0.009321	0.005784	0.002744	0.045761	0.235504	0.01368
0.03286	0.028655	0.006131	0.006214	0.02603	0.046651	0.028601	0.011488	0.021887
0.119492	0.089149	0.052117	0.086997	0.086765	0.178371	0.105823	0.149344	0.112172
6.324122	4.371498	1.891536	1.680907	3.872628	3.940616	2.562636	1.516413	3.269404
0.104556	0.098701	0.049051	0.062141	0.101226	0.200324	0.057202	0.054568	0.071133
0.008962	0.012736	0.012263	0.006214	0.014461	0.010977	0.017161	0.020104	0.005472
0	0.092333	0	0	0	0	0.00572	0	0.002736
0.020911	0.003184	0.02146	0.012428	0.014461	0.005488	0.0143	0.011488	0.005472
0.083645	0.089149	0.067445	0.055927	0.127256	0.074092	0.088663	0.074672	0.051982
0.516804	0.512608	0.346424	0.400808	0.529269	0.362229	0.460474	0.356127	0.216136
0.071695	0.054126	0.049051	0.043499	0.112795	0.054883	0.091523	0.089032	0.041039
0.050784	0.012736	0.030657	0.124281	0.028922	0.010977	0.042901	0.011488	0.010944
0.005975	0.07323	0.012263	0.018642	0.046275	0.024697	0.025741	0.020104	0.027359
0.011949	0.025471	0.015328	0.03107	0.014461	0	0.00858	0.011488	0
0.116505	0.012736	0.472117	0.288954	0.008677	0.035674	0.00858	0.292944	0.134059
2.309186	1.206699	3.215917	4.542489	4.211013	3.877501	3.114632	2.059221	4.355558
0.002987	0.003184	0.119562	0.040391	0.014461	0	0.01144	0.011488	0.068398
0	0	0.211533	0.009321	0	0	0	0	0.021887
0.011949	0.012736	0.015328	0.018642	0.011569	0.010977	0.082942	0.002872	0.01368
0.03286	0.028655	0.02146	0.040391	0	0.008232	0.01144	0.022976	0.027359
0.002987	0.01592	0.039854	0.003107	0	0	0.00286	0.040208	0
0.164302	0.226057	0.088905	0.310704	0.014461	0.016465	0.031461	0.040208	0.010944
1.233757	1.394549	0.692848	2.526021	0.286326	0.120743	0.440453	0.278584	0.18057
0.005975	0.003184	0.006131	0.012428	0.002892	0	0.00572	0.008616	0
0.008962	0	0	0.003107	0	0	0.00858	0	0
0.014937	0.009552	0.02146	0.034177	0.008677	0.019209	0.037181	0.01436	0.027359
0.274832	0.830998	0.153285	0.410129	0.19956	0.043907	0.177325	0.160832	0.1067
0.047797	0.089149	0.033723	0.130496	0.02603	0.016465	0.020021	0.034464	0.010944
0.002987	0.006368	0.04292	0.018642	0.020245	0.010977	0.00858	0.031592	0.010944
0.053771	0.022287	0.018394	0.055927	0.011569	0.005488	0.031461	0.02872	0.019151
0.146378	0.006368	0	0.003107	0	0	0.00286	0	0
0.059746	0.092333	0.076642	0.105639	0.06652	0.090557	0.065782	0.0718	0.071133
0.014937	0.009552	0.003066	0.027963	0.002892	0.030186	0.020021	0.022976	0.008208
0.080657	0.050942	0.104234	0.093211	0.072304	0.060372	0.074362	0.1436	0.065662
0.050784	0.066862	0.049051	0.086997	0.057844	0.019209	0.068642	0.025848	0.032831
0.005975	0.01592	0.033723	0.03107	0.014461	0.005488	0.0143	0.017232	0.002736
0.277819	0.079598	0.137956	0.276526	0.135932	0.101534	0.200206	0.137856	0.073869
0.005975	0.01592	0.039854	0.049713	0.008677	0.010977	0.020021	0.01436	0.008208
0.125467	0.248344	0.125694	0.155352	0.109903	0.115255	0.157305	0.160832	0.142267
0.056759	0.085965	0.095037	0.099425	0.049167	0.046651	0.051482	0.08616	0.082077
0.017924	0.019103	0.027591	0.021749	0.028922	0.024697	0.034321	0.020104	0.024623
0.041822	0.009552	0.012263	0.015535	0.002892	0.109766	0.0143	0.045952	0.04651

0.11053	0.066862	0.24219	0.102532	0.101226	0.06586	0.048621	0.109136	0.098493
0.03286	0.076414	0.08584	0.059034	0.034706	0.038418	0.088663	0.077544	0.098493
0.316654	0.423459	0.628468	0.431878	0.540838	0.611948	0.474774	0.462391	0.495198
0.005975	0.01592	0	0.006214	0.005784	0	0.022881	0.025848	0
0.809559	0.964722	1.364236	1.081249	0.911037	0.88362	1.34424	1.145926	1.30229
0.457058	0.436195	0.61314	0.658692	0.488778	0.491205	0.66354	0.539935	0.331044
0.086632	0.089149	0.082774	0.205064	0.072304	0.06586	0.068642	0.0718	0.051982
0.002987	0	0.003066	0.006214	0.008677	0.008232	0	0.002872	0.019151
0.059746	0.165563	0.067445	0.093211	0.144609	0.126231	0.114403	0.109136	0.112172
0.534727	0.515792	0.646862	0.835793	0.445396	0.37595	0.514815	0.631839	0.320101
0.955937	1.464595	1.676937	1.118533	1.315942	1.487336	1.332799	1.473334	1.997209
0.182226	0.235609	0.318833	0.338667	0.185099	0.225021	0.245967	0.246992	0.259911
0.125467	0.156011	0.107299	0.142924	0.112795	0.107022	0.131564	0.066056	0.038303
1.654966	1.82756	2.421901	2.199783	1.5531	1.462638	2.328109	1.938597	1.296818
0.026886	0.022287	0.052117	0.034177	0.072304	0.090557	0.117263	0.068928	0.068398
0.256908	0.337494	0.413869	0.276526	0.300787	0.260695	0.303169	0.488239	0.415857
0.098581	0.111437	0.125694	0.068355	0.101226	0.076837	0.134424	0.120624	0.084813
0.170276	0.143276	0.190073	0.173994	0.231374	0.318323	0.177325	0.15796	0.169626
1.968633	2.177789	3.010515	2.376884	2.093938	2.675558	1.933417	2.133892	2.787885
0.197162	0.337494	0.398541	0.279633	0.130148	0.194835	0.240247	0.433671	0.243495
0.451083	0.382068	0.567154	0.680441	0.176423	0.340276	0.303169	0.407823	0.517086
0.008962	0.041391	0.061314	0.077676	0.034706	0.043907	0.082942	0.040208	0.035567
0.176251	0.235609	0.245256	0.288954	0.182207	0.285393	0.191626	0.290072	0.388498
0.011949	0.009552	0.012263	0.015535	0.008677	0.005488	0.00858	0.005744	0.010944
0.212099	0.238793	0.257519	0.267205	0.190884	0.2113	0.277428	0.275712	0.128587
0.005975	0.012736	0.02146	0.009321	0.008677	0.002744	0.017161	0.008616	0.005472
0.008962	0.01592	0.012263	0.024856	0.011569	0.016465	0.00572	0.01436	0.010944
0.098581	0.079598	0.110365	0.142924	0.072304	0.074092	0.102963	0.10052	0.057454
0.848394	0.745033	0.79095	1.0595	0.688339	0.699761	0.952408	0.987966	0.508878
0.029873	0.041391	0.052117	0.065248	0.060736	0.060372	0.054342	0.163704	0.06019
0.008962	0.035023	0	0	0.005784	0.005488	0.01144	0.008616	0.01368
0.020911	0.025471	0.030657	0.009321	0	0	0.01144	0.01436	0.019151
0.167289	0.184666	0.321898	0.208172	0.130148	0.216789	0.234527	0.235504	0.224344
0.104556	0.143276	0.119562	0.13671	0.121472	0.093302	0.097243	0.301559	0.114908
0.277819	0.257896	0.223796	0.400808	0.164854	0.24423	0.248827	0.278584	0.224344
0.026886	0.035023	0.045985	0.015535	0.014461	0.019209	0.051482	0.08616	0.005472
0.519791	0.394804	0.530366	0.612086	0.370199	0.787574	0.380391	0.772567	0.476047
0.098581	0.433011	0.487446	0.288954	0.338385	0.260695	0.257408	0.453775	0.697655
0.699029	0.751401	0.870658	0.960075	0.754859	0.779342	1.129733	0.944886	0.850866
0.017924	0.022287	0	0.003107	0.008677	0.005488	0.01144	0.002872	0.002736
0.271845	0.241977	0.331095	0.323132	0.344169	0.425345	0.274568	0.419311	0.435009
0.005975	0.019103	0	0.024856	0.002892	0.002744	0.00286	0.008616	0
0	0.24516	0.015328	0.090104	0.005784	0.002744	0	0.01436	0
0.020911	0.044575	0.131825	0.009321	0.031814	0.005488	0.051482	0.031592	0.035567
5.14115	5.269358	5.196358	5.688986	4.569644	5.76274	5.628647	5.97375	5.050477
1.442868	0.958355	1.489929	0.602765	1.15398	0.81776	1.212676	0.830007	1.586824
0.056759	0.006368	0.116497	0.03107	0.054951	0.046651	0.025741	0.0718	0.076605

0.041822	0.070046	0.033723	0.003107	0.011569	0.038418	0.051482	0.017232	0
0.03286	0.31839	0.202336	0.102532	0.089658	0.013721	0.131564	0.155088	0.082077
3.572816	3.998981	2.863362	1.972969	3.754049	4.275404	2.399611	3.185043	4.128478
0.107543	0.07323	0.22073	0.16778	0.156178	0.134464	0.137284	0.15796	0.125852
5.858103	6.663907	6.257089	4.471027	7.869621	10.82572	6.355108	7.056492	7.671473
0.029873	0.01592	0.082774	0.015535	0.031814	0.233254	0.034321	0.020104	0.087549
0.125467	0.143276	0.147153	0.186422	0.141717	0.16465	0.137284	0.12924	0.169626
0.080657	0.085965	0.079708	0.08389	0.095442	0.054883	0.054342	0.1436	0.076605
0.017924	0.019103	0.033723	0.024856	0.014461	0.010977	0.01144	0.020104	0.024623
2.700523	3.097937	2.848033	2.681373	3.661499	3.649735	3.237616	3.802522	3.389784
0.023898	0.009552	0.018394	0.012428	0.008677	0.013721	0.0143	0.017232	0.016415
0.04481	0.003184	0.003066	0.018642	0.031814	0.002744	0.00286	0.008616	0.019151
2.318148	3.085201	2.274748	1.559733	3.936256	3.507039	3.117492	2.814555	2.541654
0.020911	0.044575	0.039854	0.065248	0.011569	0.005488	0.022881	0.045952	0.024623
0.002987	0	0.006131	0.024856	0	0.005488	0	0.002872	0
2.279313	1.461411	1.085257	1.17446	2.102615	3.405505	1.058231	1.30963	1.978058
0.107543	0.041391	0.039854	0.16778	0.063628	0.03293	0.054342	0.025848	0.090285
0.020911	0.01592	0.006131	0.027963	0.011569	0.054883	0.00858	0.011488	0.032831
0.504854	0.480769	0.533431	0.456735	0.506131	0.584506	0.603478	0.539935	0.536237
0.011949	0.009552	0.02146	0.015535	0.002892	0.008232	0.01144	0.011488	0
0.161314	0.168747	0.131825	0.102532	0.266081	0.203068	0.33749	0.224016	0.229816
0.020911	0.031839	0.045985	0.018642	0.008677	0.128976	0.143004	0.048824	0.005472
0.397311	0.471218	0.557957	0.646264	0.309463	0.395159	0.600618	0.413567	0.292742
0.07767	0.07323	0.082774	0.05282	0.057844	0.068604	0.085803	0.097648	0.084813
0.113518	0.105069	0.110365	0.152245	0.086765	0.101534	0.143004	0.106264	0.098493
0.15534	0.229241	0.156351	0.108746	0.260296	0.504926	0.145864	0.094776	0.216136
0.080657	0.079598	0.095037	0.043499	0.078089	0.128976	0.068642	0.091904	0.068398
0.107543	0.24516	0.144088	0.102532	0.196668	0.397903	0.214506	0.209656	0.175098
3.369679	4.463831	3.740151	3.840298	3.699098	3.098159	4.40167	3.61297	3.365161
0.191187	0.152827	0.190073	0.121174	0.214021	0.137208	0.145864	0.12924	0.084813
0.03286	0.006368	0.04292	0.049713	0.017353	0.013721	0.028601	0.008616	0.010944
0.035848	0.009552	0.006131	0.012428	0.002892	0.005488	0.00572	0.005744	0.010944
0.011949	0.022287	0.006131	0.009321	0.014461	0.013721	0.025741	0.002872	0.021887
0.035848	0.028655	0.024526	0.034177	0.049167	0.038418	0.042901	0.025848	0.043774
0.008962	0.006368	0.024526	0.040391	0.023137	0.016465	0.028601	0.011488	0.041039
0.071695	0.054126	0.067445	0.068355	0.028922	0.101534	0.065782	0.060312	0.054718
0.119492	0.133724	0.131825	0.254777	0.040491	0.052139	0.111543	0.117752	0.057454
0.268857	0.276999	0.340292	0.397701	0.222698	0.2113	0.248827	0.137856	0.22708
0.038835	0.019103	0.070511	0.027963	0.008677	0.013721	0.01144	0.020104	0.024623
0.074683	0.07323	0.119562	0.099425	0.080981	0.085069	0.100103	0.074672	0.04651
0.023898	0.041391	0.027591	0.068355	0.043383	0.035674	0.040041	0.011488	0.024623
0.002987	0.009552	0.02146	0.015535	0.008677	0.002744	0.020021	0.008616	0.010944
0.04481	0.060494	0.033723	0.068355	0.02603	0.054883	0.088663	0.063184	0.024623
0.543689	0.305655	0.033723	0.024856	0.274757	0.035674	0.102963	0.034464	0.021887
0	0	0	0	0	0	0	0	0
0.017924	0.009552	0.024526	0.018642	0.031814	0.021953	0.017161	0.037336	0.008208
0.212099	0.264264	0.144088	0.139817	0.326816	0.227765	0.131564	0.180936	0.221608

0.020911	0.181482	0.055183	0.074569	0.011569	0.008232	0.00858	0.017232	0.054718
0.322629	1.846663	0.898249	1.705764	0.104118	0.137208	0.437593	0.18668	0.831715
0.185213	0.156011	0.134891	0.379059	0.170639	0.06586	0.200206	0.077544	0.095757
1.347274	1.365894	1.62482	1.882865	1.263882	1.448917	2.228006	1.691605	1.430877
2.153846	2.091824	2.529201	2.45456	1.761337	2.461513	2.539755	2.711163	1.942491
0.845407	0.601758	0.640731	0.748796	0.656525	0.642134	0.786523	0.605991	0.62105
0.062733	0.136908	0.324964	0.142924	0.069412	0.049395	0.154445	0.12924	0.196985
0.03286	0.047759	0.04292	0.080783	0.034706	0.109766	0.094383	0.060312	0.068398
0.134429	0.089149	0.095037	0.111853	0.063628	0.087813	0.088663	0.137856	0.065662
0.68708	0.515792	0.987155	0.829579	0.595789	0.968689	0.586317	1.197622	0.971246
0.131441	0.292919	0.597811	0.155352	0.153286	0.060372	0.283148	0.155088	0.2134
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0.005975	0.01592	0.036788	0	0.017353	0.002744	0.034321	0.002872	0.002736
0.023898	0.022287	0.02146	0.040391	0.028922	0.019209	0.017161	0.025848	0.038303
0.023898	0.012736	0.02146	0.049713	0.017353	0.008232	0.022881	0.022976	0.010944
0.029873	0.009552	0.009197	0.068355	0.017353	0.027442	0.025741	0.017232	0.002736
0.029873	0.041391	0.04292	0.062141	0.034706	0.027442	0.051482	0.037336	0.024623
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0.03286	0.012736	0.04292	0.046606	0.031814	0.043907	0.0143	0.034464	0.021887

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