

**B** Taxon and Function Tables

Taxa	Samples		
	S1	S2	S3
T1	1	1	1
T2	1	1	1
T3	1	1	1

Functions	Samples		
	S1	S2	S3
F1	2	2	2
F2	1	1	1

**C** Taxon-Function Table

Proteins	Samples		
	S1	S2	S3
T1F1	1	0	1
T1F2	0	1	0
T2F1	0	1	1
T2F2	1	0	0
T3F1	1	1	0
T3F2	0	0	1

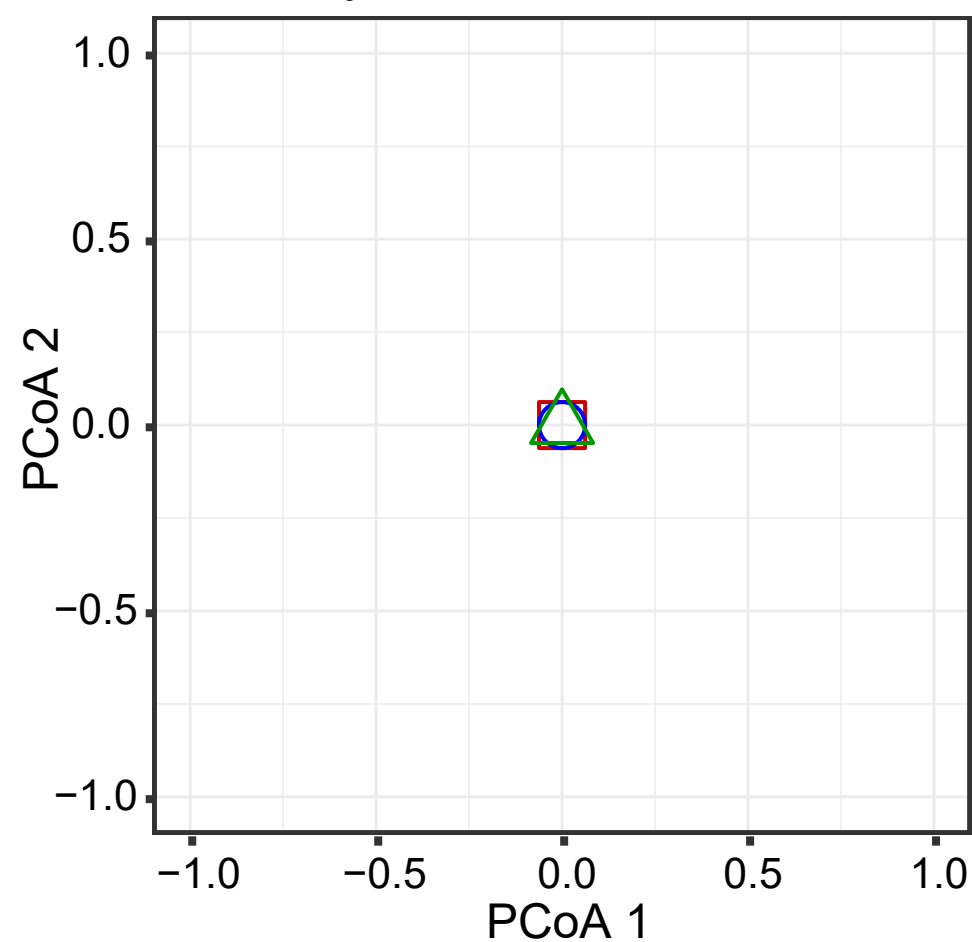
**D** Phylogeny-informed Taxon-Function Table

Taxa	Samples		
	S1	S2	S3
T1	1	0	1
T2	0	1	0
T3	1	1	0

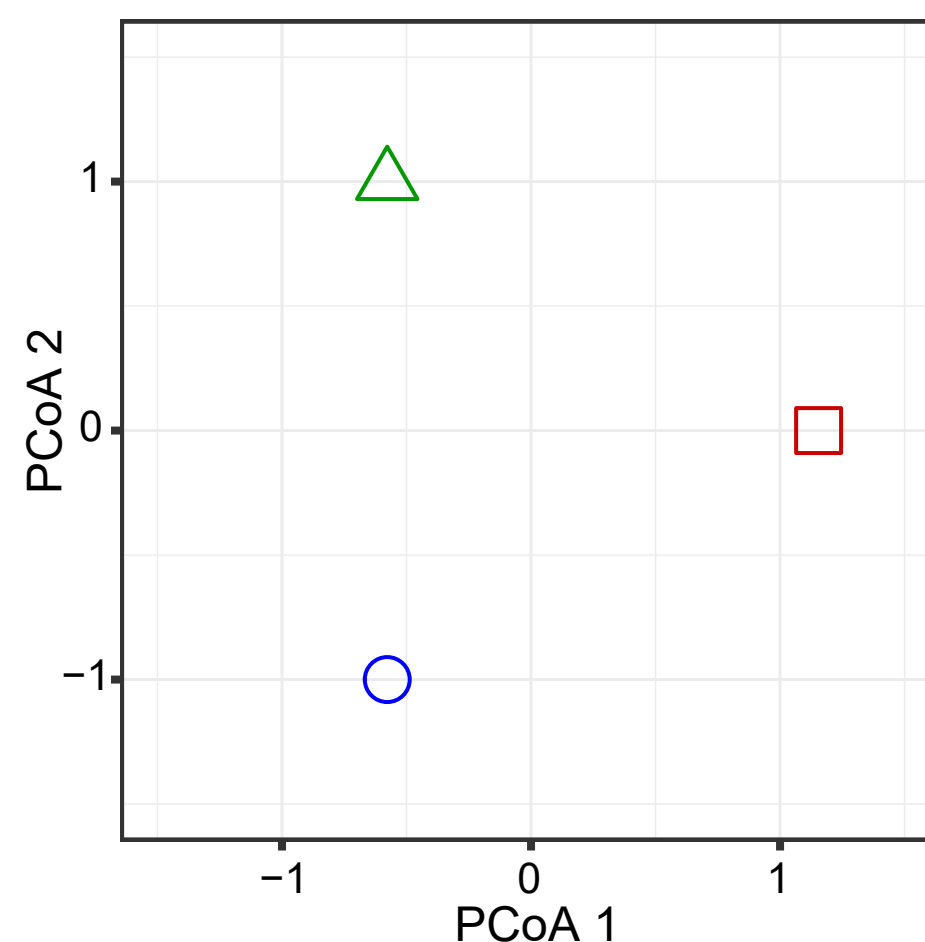
  

Functions	Samples		
	S1	S2	S3
F1	1	0	1
F2	0	1	0
F1	0	1	1
F2	1	0	0
F1	1	1	0
F2	0	0	1

**E** Taxonomy/Function-based distance



**F** Protein table-based distance



**G** PhyloFun distance

