

# TME2 - PHYG

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## 1 Exercise 1 : Genome evolution simulation

### 1.1 Question 1

### 1.2 Question 2

### 1.3 Question 3

## 2 Exercise 2 : Implementation of simple events

Cf. folder "code".

## 3 Exercise 3 : Small dataset simulation

### 3.1 Question 1

Cf. folder "code/results/[1-10]".

### 3.2 Question 2

	Sim 1	Sim 2	Sim 3	Sim 4	Sim 5	Sim 6	Sim 7	Sim 8	Sim 9	Sim 10
Inversion	7	10	11	11	12	10	7	8	7	10
Translocation	8	1	5	1	4	7	6	2	1	6
Duplication	0	1	0	1	2	0	1	3	3	0
Deletions	0	2	1	1	2	0	3	2	4	0
Fusions	0	0	0	0	0	0	0	0	0	0
Fissions	0	0	0	0	0	0	0	0	0	0
WGD	0	0	0	0	0	0	0	0	0	0

### 3.3 Question 3

### 3.4 Question 4-5

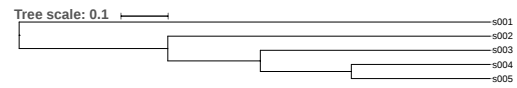


Figure 1: Real tree for simulation 1

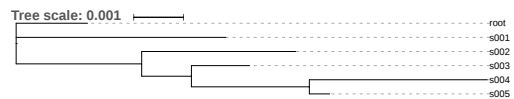


Figure 2: The resulting tree of Maximum of likelihood algorithm for simulation  
1

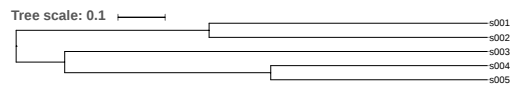


Figure 3: Real tree for simulation 6

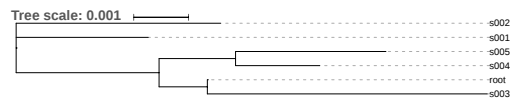


Figure 4: The resulting tree of Maximum of likelihood algorithm for simulation  
6