

# SNP tree Exercise

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$$f(x+\Delta x) = \sum_{i=0}^{\infty} \frac{(\Delta x)^i}{i!} f^{(i)}(x)$$

$$\Delta \int_a^b \varepsilon \Theta^{\sqrt{17}} + \Omega \int \delta \chi^2 \Sigma!$$



# Questions:

- 5 E.coli strains (genome can be downloaded from course material)
- Strain 1 is an outbreak strain
- Construct SNP tree using CSIPhylogeny (reference genome can be found in course material) and answer questions below
- How they are related ?
- Which strains are part of the outbreak and why ?