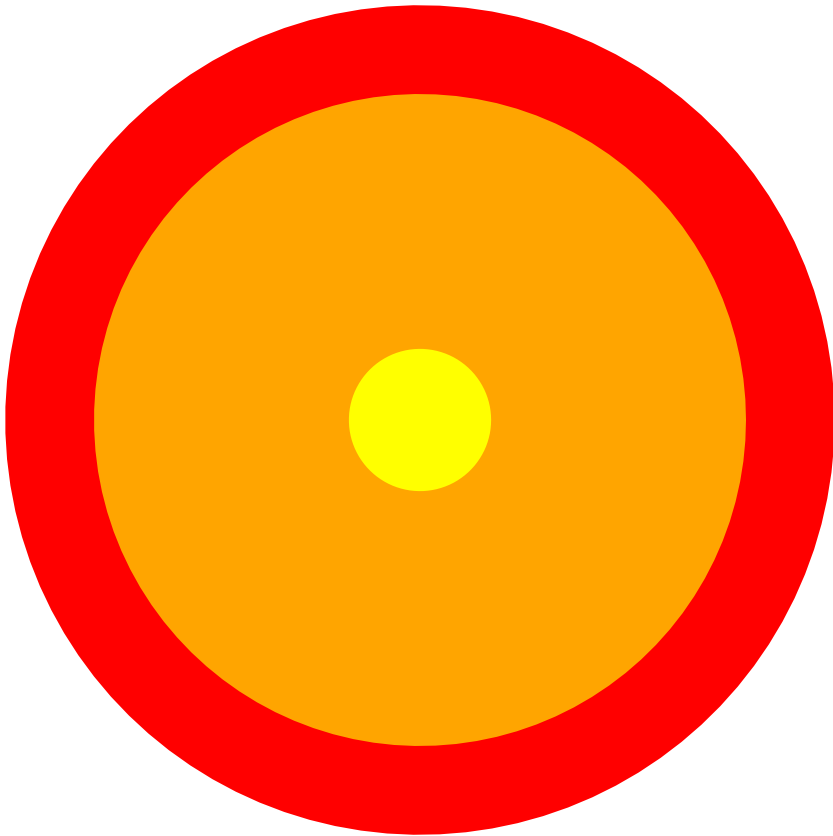cloud (34 , genomes<=2)
shell (21)
soft core (1 , genomes>=486)
core (0 , genomes=512)

total gene clusters = 56   taxa = 512