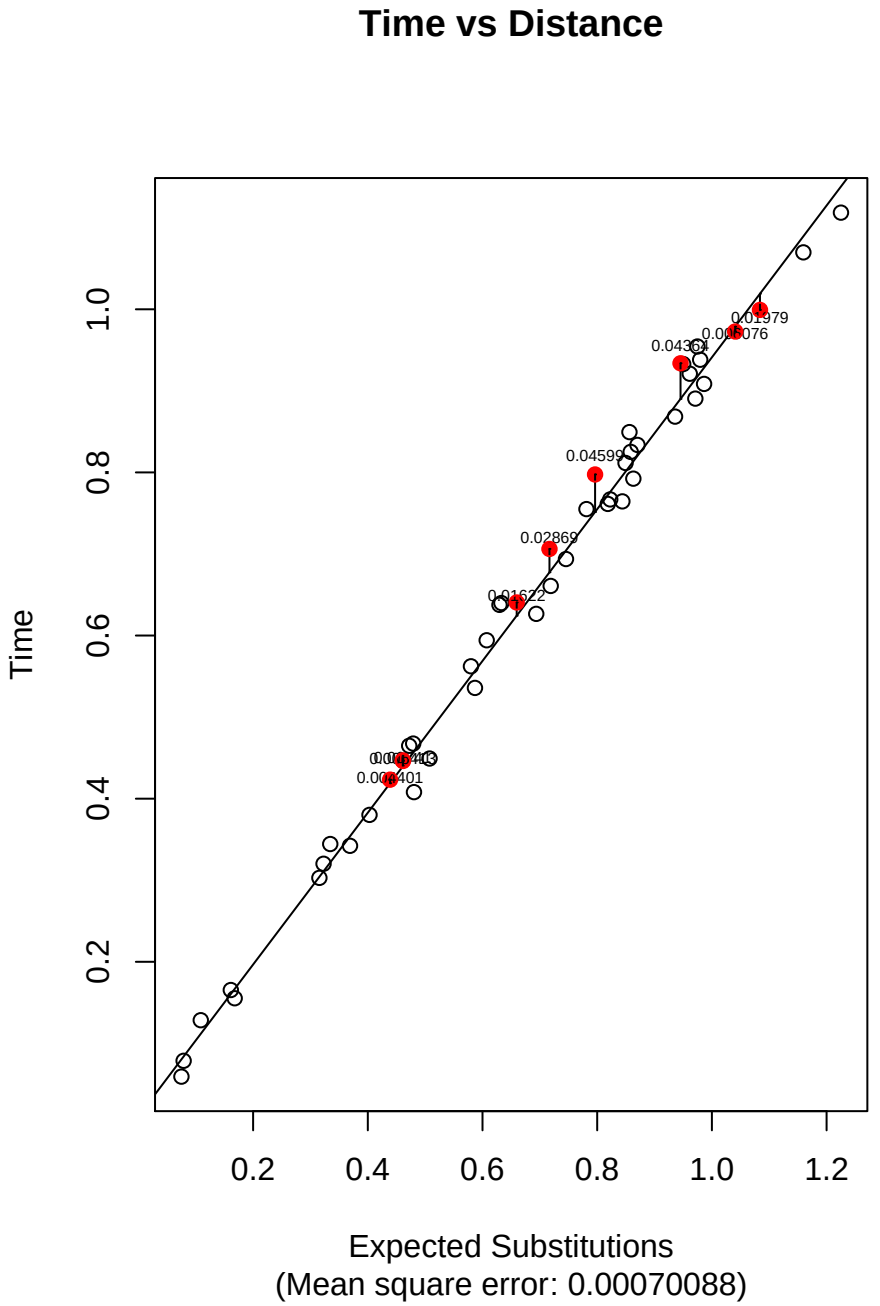
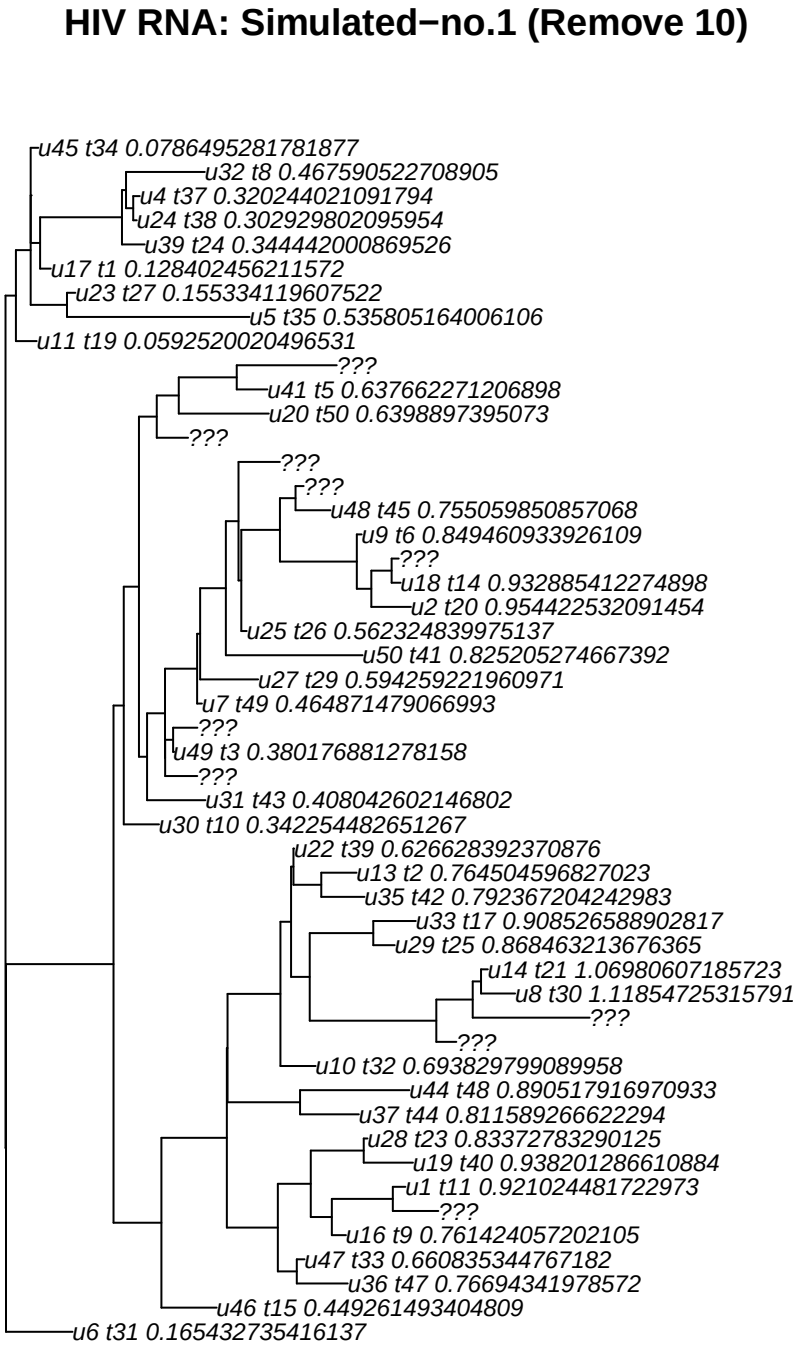
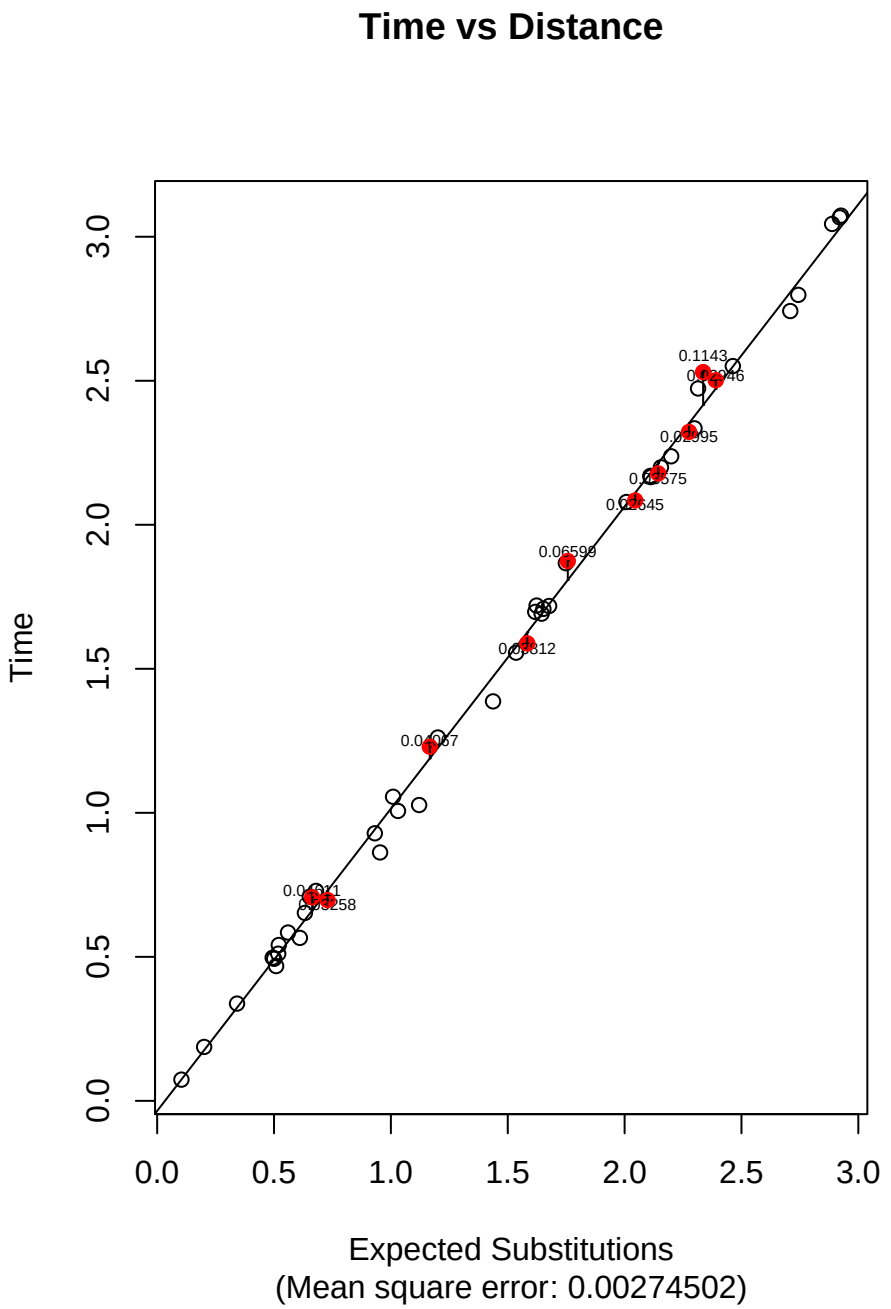
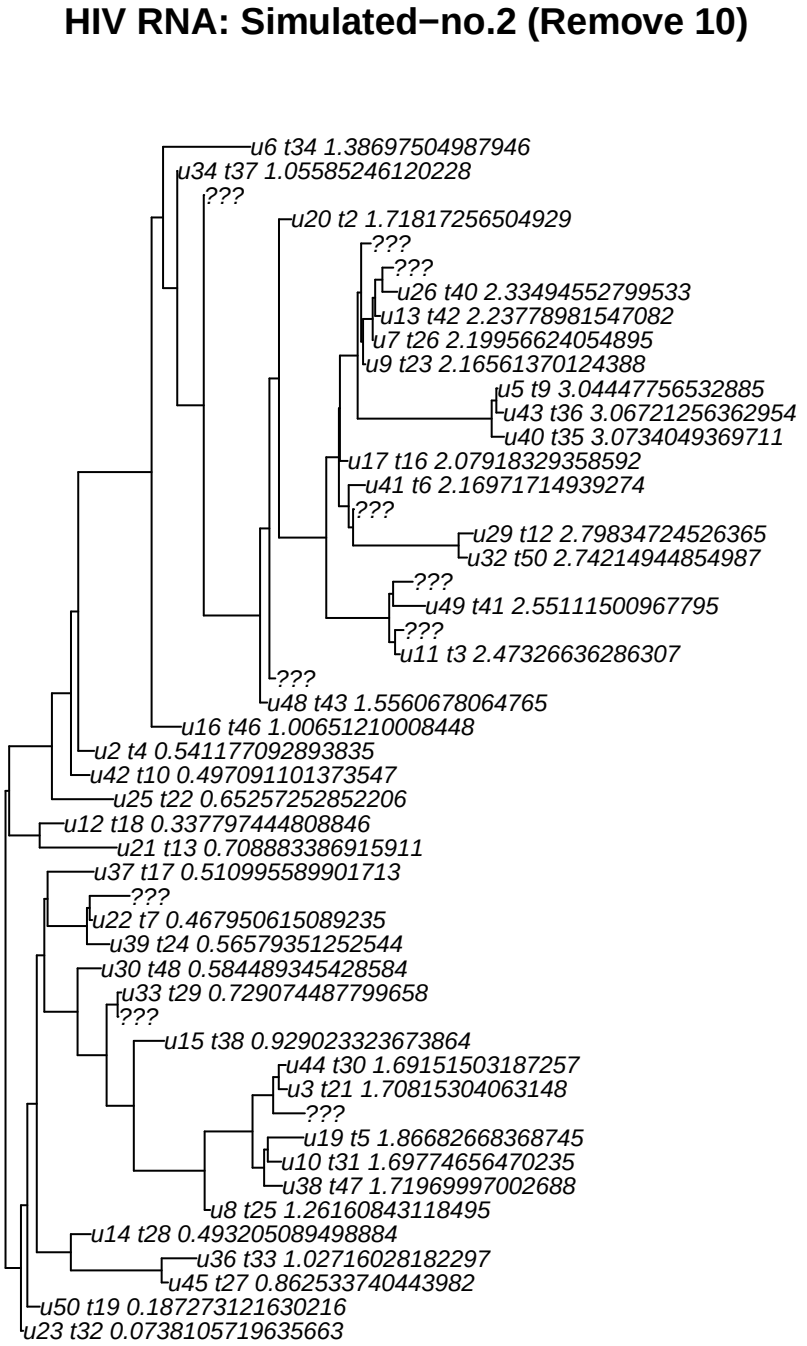
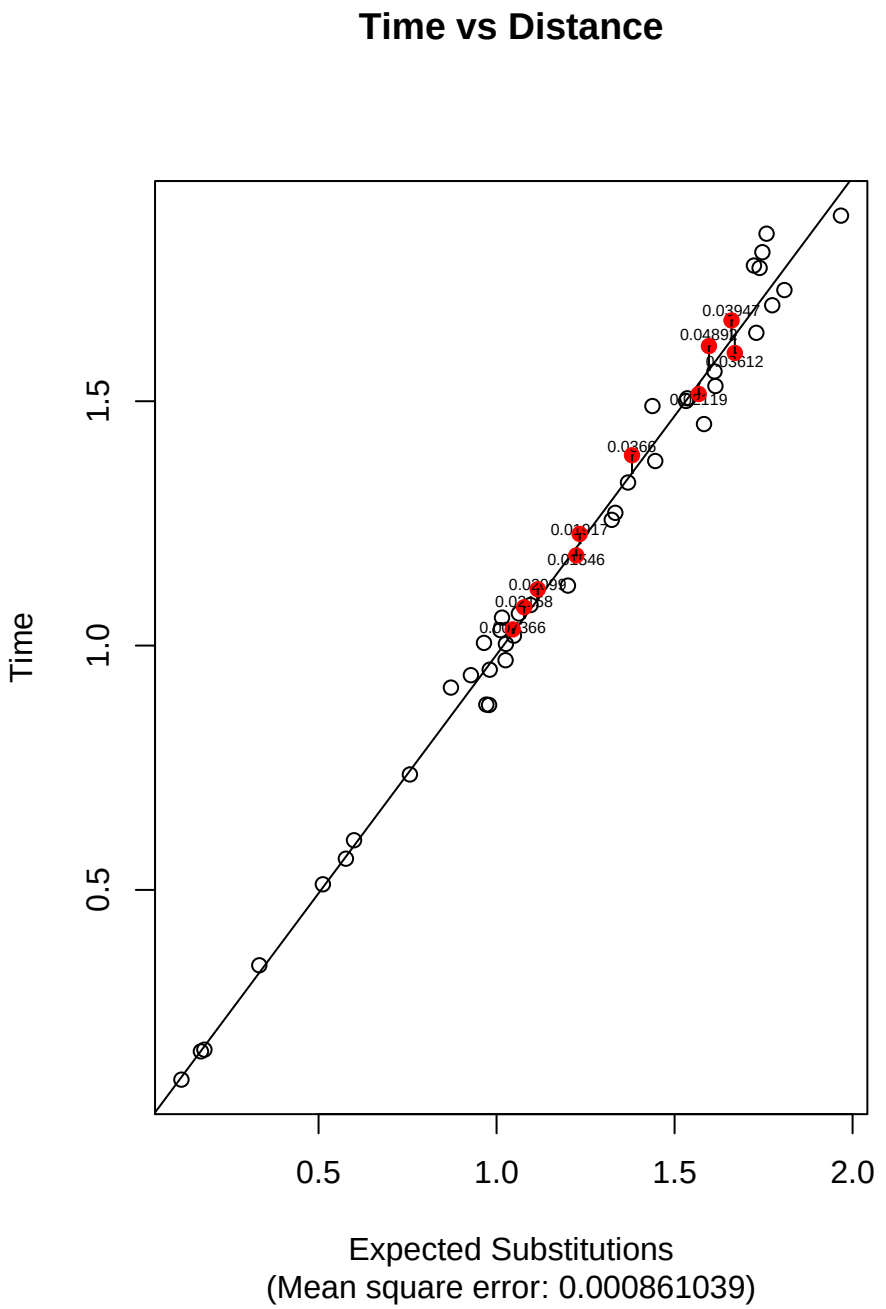
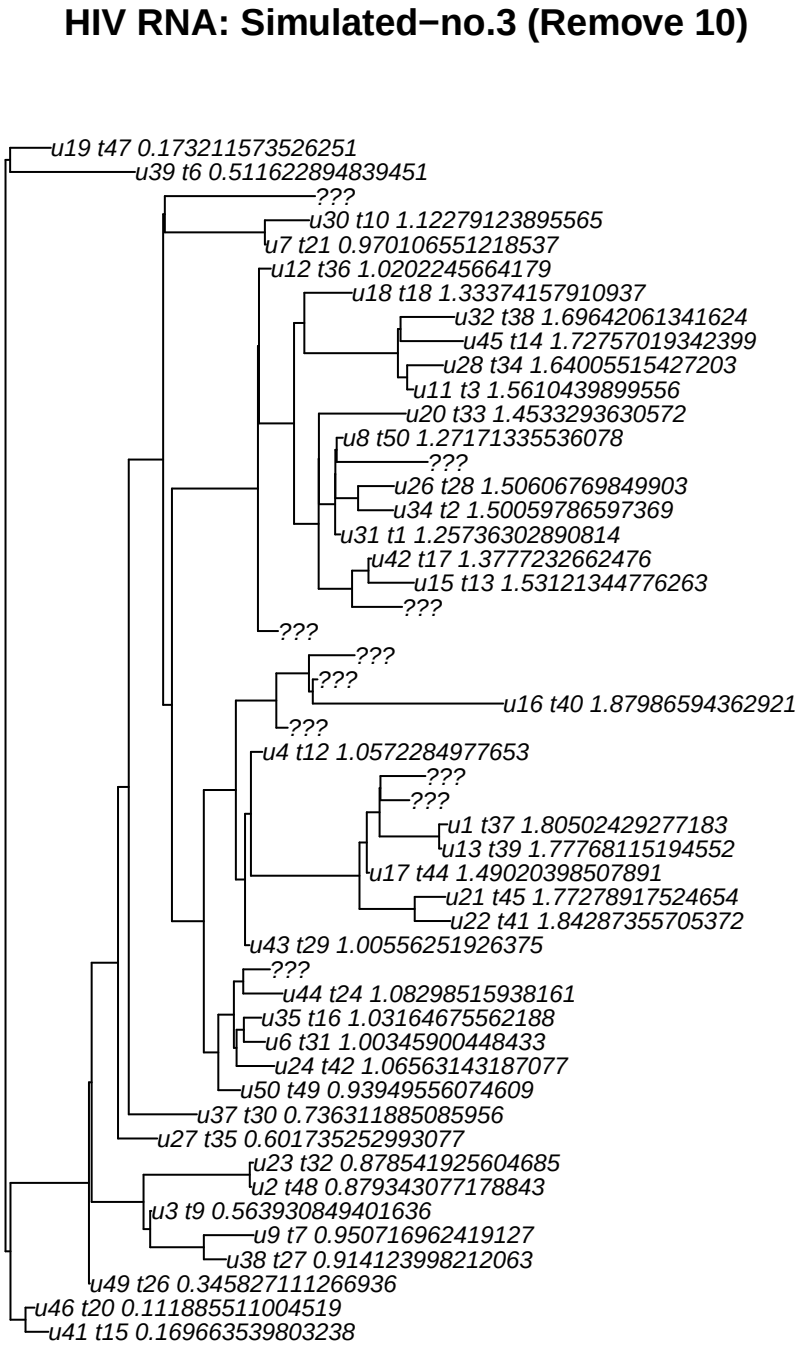

Time vs Distance
Time
0.2
0.4
0.6
0.8
1.0
0.2
0.4
0.6
0.8
1.0
1.2
Expected Substitutions
(Mean square error: 0.00070088)

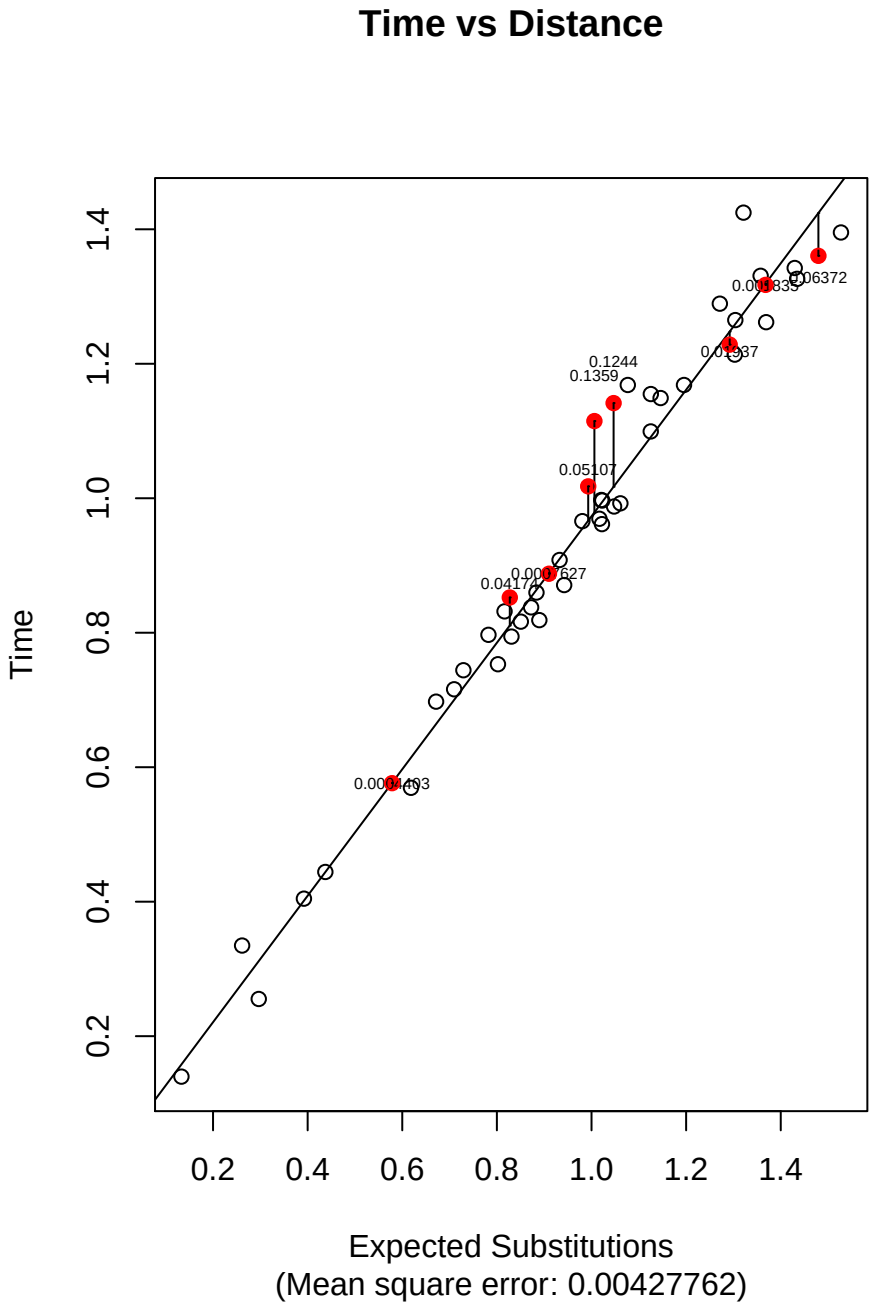

HIV RNA: Simulated−no.1 (Remove 10)
u45 t34 0.0786495281781877
u32 t8 0.467590522708905
u4 t37 0.320244021091794
u24 t38 0.302929802095954
u39 t24 0.344442000869526
u17 t1 0.128402456211572
u23 t27 0.155334119607522
u5 t35 0.535805164006106
u11 t19 0.0592520020496531
???
u41 t5 0.637662271206898
u20 t50 0.6398897395073
???
???
???
u48 t45 0.755059850857068
u9 t6 0.849460933926109
???
u18 t14 0.932885412274898
u2 t20 0.954422532091454
u25 t26 0.562324839975137
u50 t41 0.825205274667392
u27 t29 0.594259221960971
u7 t49 0.464871479066993
???
u49 t3 0.380176881278158
???
u31 t43 0.408042602146802
u30 t10 0.342254482651267
u22 t39 0.626628392370876
u13 t2 0.764504596827023
u35 t42 0.792367204242983
u33 t17 0.908526588902817
u29 t25 0.868463213676365
u14 t21 1.06980607185723
u8 t30 1.11854725315791
???
???
u10 t32 0.693829799089958
u44 t48 0.890517916970933
u37 t44 0.811589266622294
u28 t23 0.83372783290125
u19 t40 0.938201286610884
u1 t11 0.921024481722973
???
u16 t9 0.761424057202105
u47 t33 0.660835344767182
u36 t47 0.76694341978572
u46 t15 0.449261493404809
u6 t31 0.165432735416137

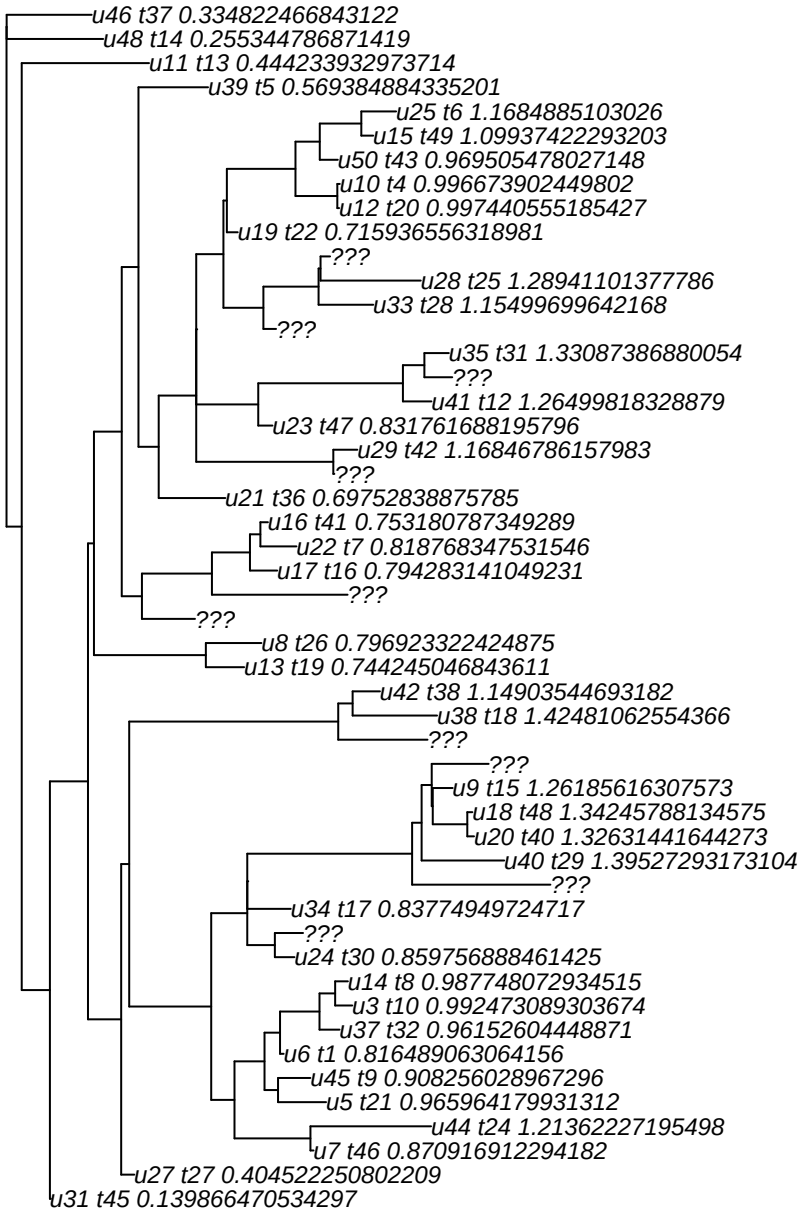

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00274502)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.1143
0.06599

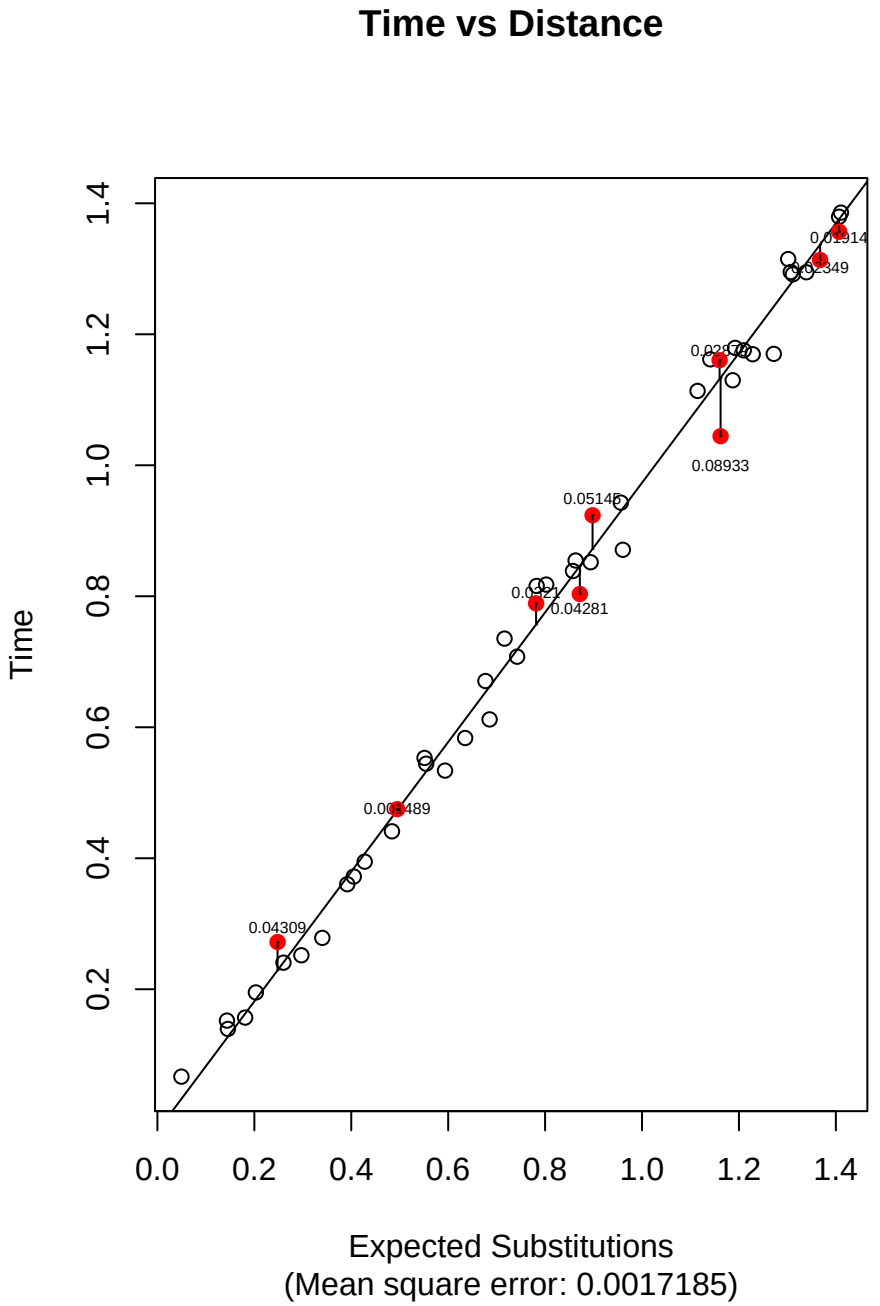

HIV RNA: Simulated−no.2 (Remove 10)
u6 t34 1.38697504987946
u34 t37 1.05585246120228
???
u20 t2 1.71817256504929
???
???
u26 t40 2.33494552799533
u13 t42 2.23778981547082
u7 t26 2.19956624054895
u9 t23 2.16561370124388
u5 t9 3.04447756532885
u43 t36 3.06721256362954
u40 t35 3.0734049369711
u17 t16 2.07918329358592
u41 t6 2.16971714939274
???
u29 t12 2.79834724526365
u32 t50 2.74214944854987
???
u49 t41 2.55111500967795
???
u11 t3 2.47326636286307
???
u48 t43 1.5560678064765
u16 t46 1.00651210008448
u2 t4 0.541177092893835
u42 t10 0.497091101373547
u25 t22 0.65257252852206
u12 t18 0.337797444808846
u21 t13 0.708883386915911
u37 t17 0.510995589901713
???
u22 t7 0.467950615089235
u39 t24 0.56579351252544
u30 t48 0.584489345428584
u33 t29 0.729074487799658
???
u15 t38 0.929023323673864
u44 t30 1.69151503187257
u3 t21 1.70815304063148
???
u19 t5 1.86682668368745
u10 t31 1.69774656470235
u38 t47 1.71969997002688
u8 t25 1.26160843118495
u14 t28 0.493205089498884
u36 t33 1.02716028182297
u45 t27 0.862533740443982
u50 t19 0.187273121630216
u23 t32 0.0738105719635663

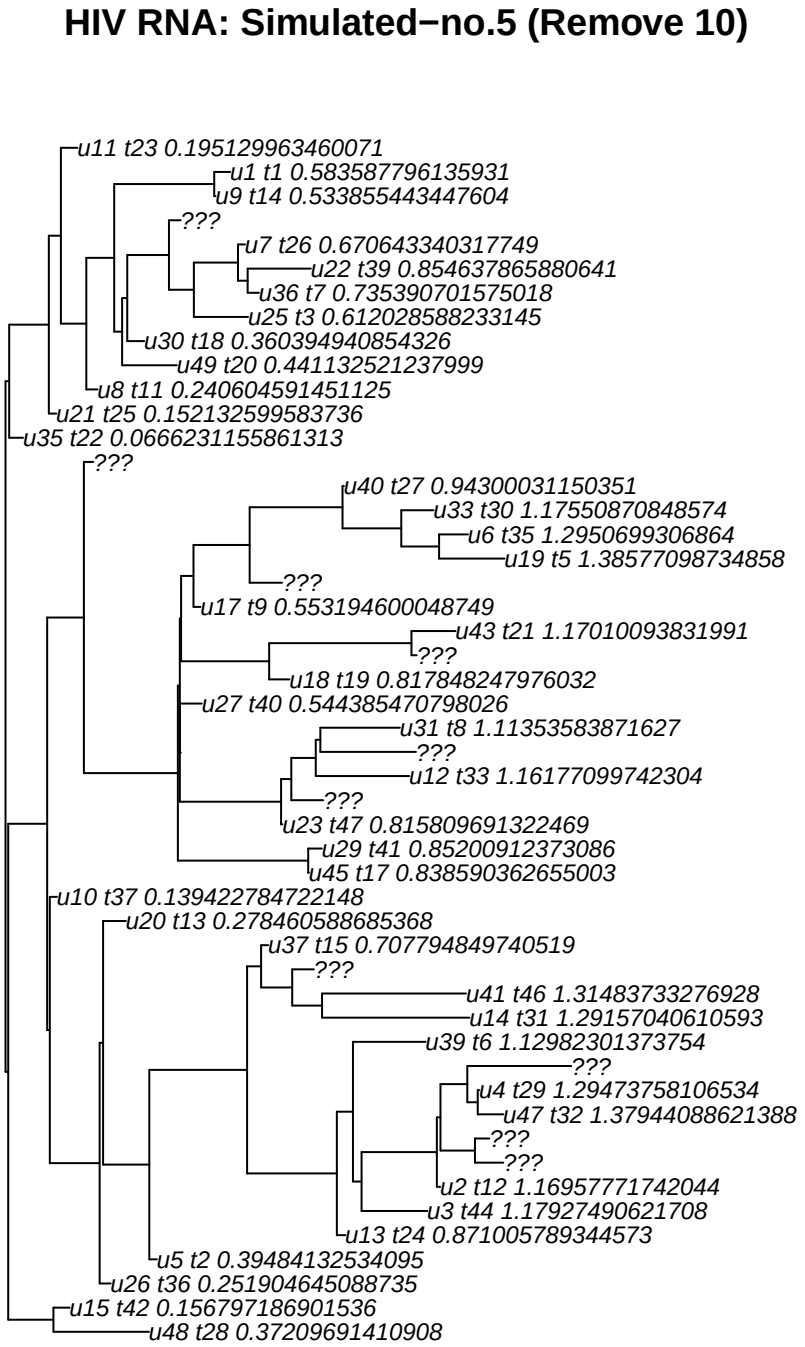

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
2.0
Expected Substitutions
(Mean square error: 0.000861039)

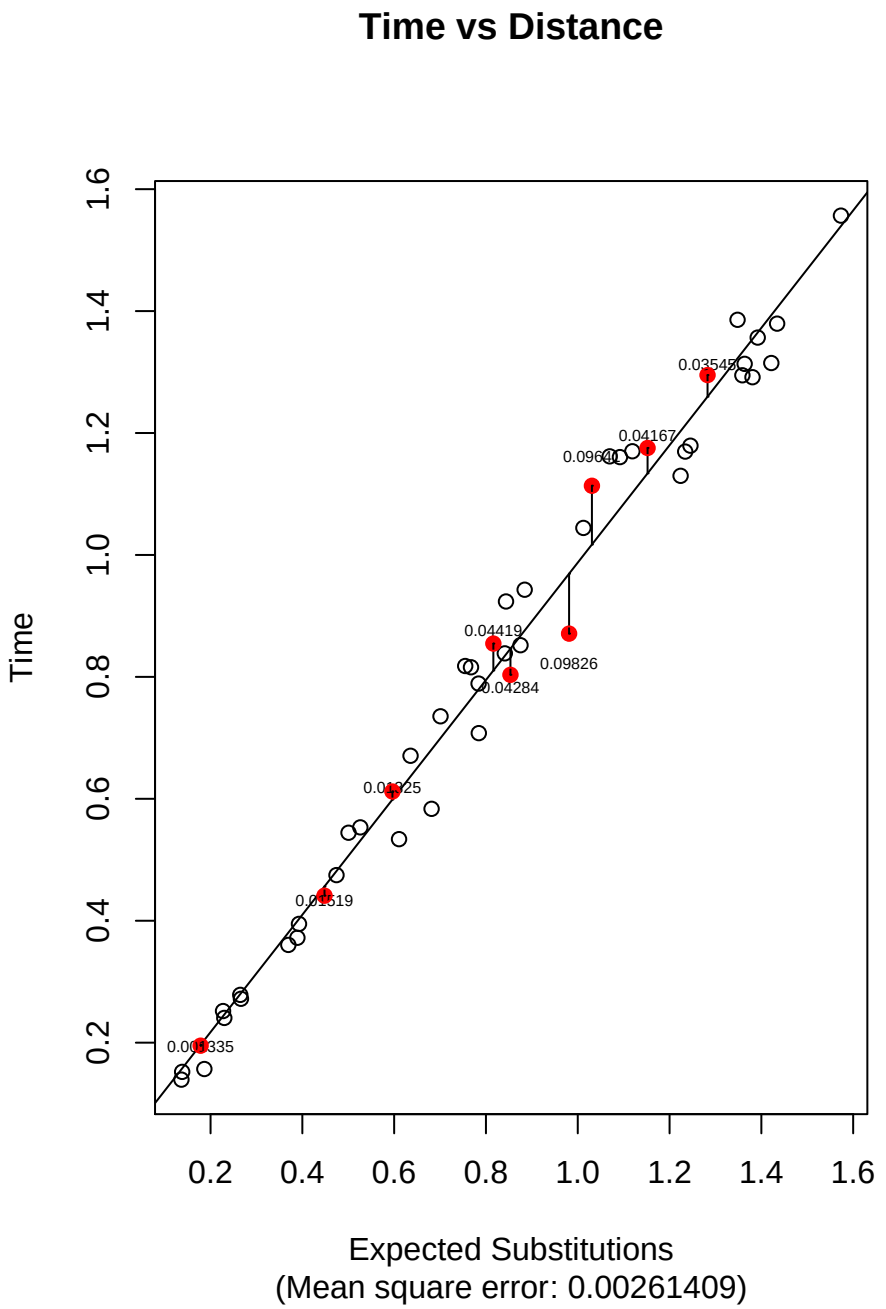

HIV RNA: Simulated−no.3 (Remove 10)
u19 t47 0.173211573526251
u39 t6 0.511622894839451
???
u30 t10 1.12279123895565
u7 t21 0.970106551218537
u12 t36 1.0202245664179
u18 t18 1.33374157910937
u32 t38 1.69642061341624
u45 t14 1.72757019342399
u28 t34 1.64005515427203
u11 t3 1.5610439899556
u20 t33 1.4533293630572
u8 t50 1.27171335536078
???
u26 t28 1.50606769849903
u34 t2 1.50059786597369
u31 t1 1.25736302890814
u42 t17 1.3777232662476
u15 t13 1.53121344776263
???
???
???
???
???
u16 t40 1.87986594362921
???
u4 t12 1.0572284977653
???
???
u1 t37 1.80502429277183
u13 t39 1.77768115194552
u17 t44 1.49020398507891
u21 t45 1.77278917524654
u22 t41 1.84287355705372
u43 t29 1.00556251926375
???
u44 t24 1.08298515938161
u35 t16 1.03164675562188
u6 t31 1.00345900448433
u24 t42 1.06563143187077
u50 t49 0.93949556074609
u37 t30 0.736311885085956
u27 t35 0.601735252993077
u23 t32 0.878541925604685
u2 t48 0.879343077178843
u3 t9 0.563930849401636
u9 t7 0.950716962419127
u38 t27 0.914123998212063
u49 t26 0.345827111266936
u46 t20 0.111885511004519
u41 t15 0.169663539803238

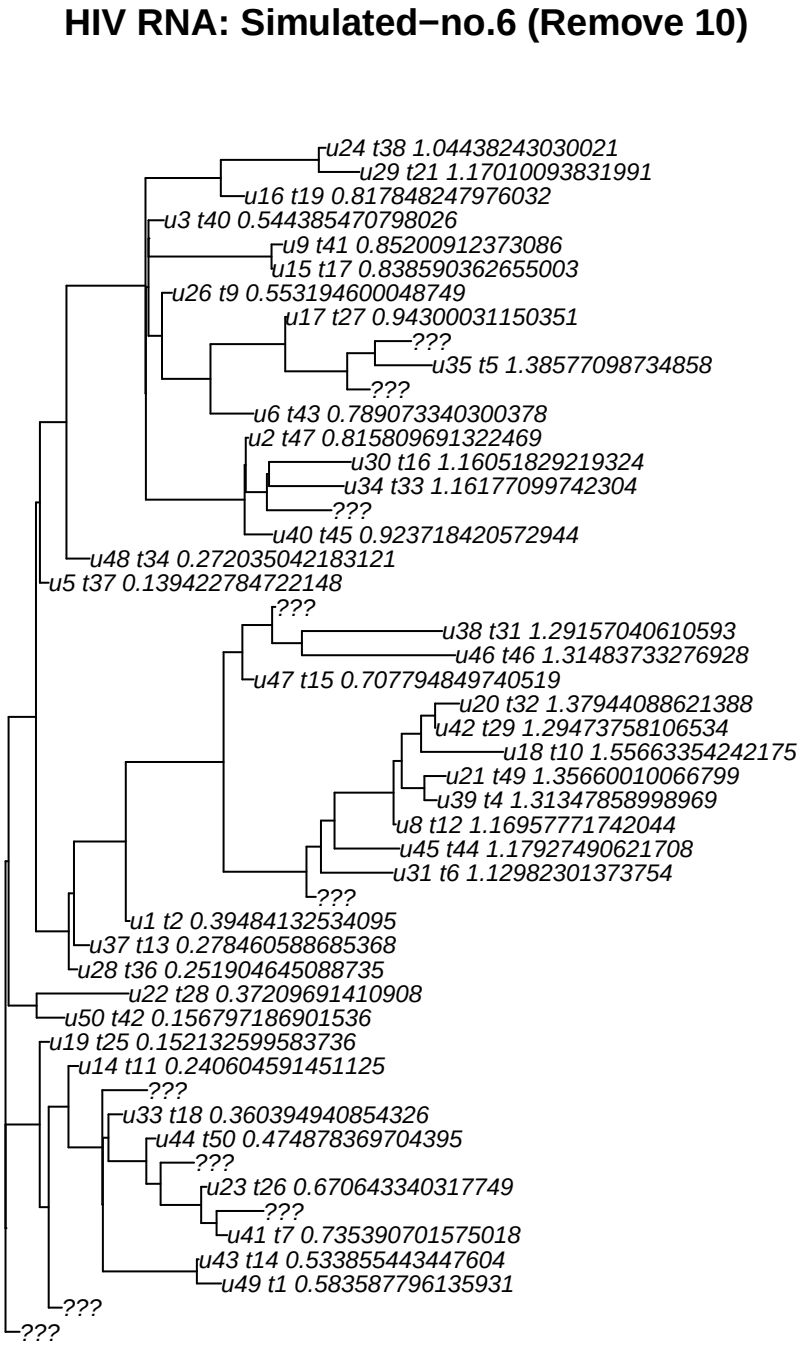

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00427762)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.1244
0.1359
0.05107
0.0417
0.0006372

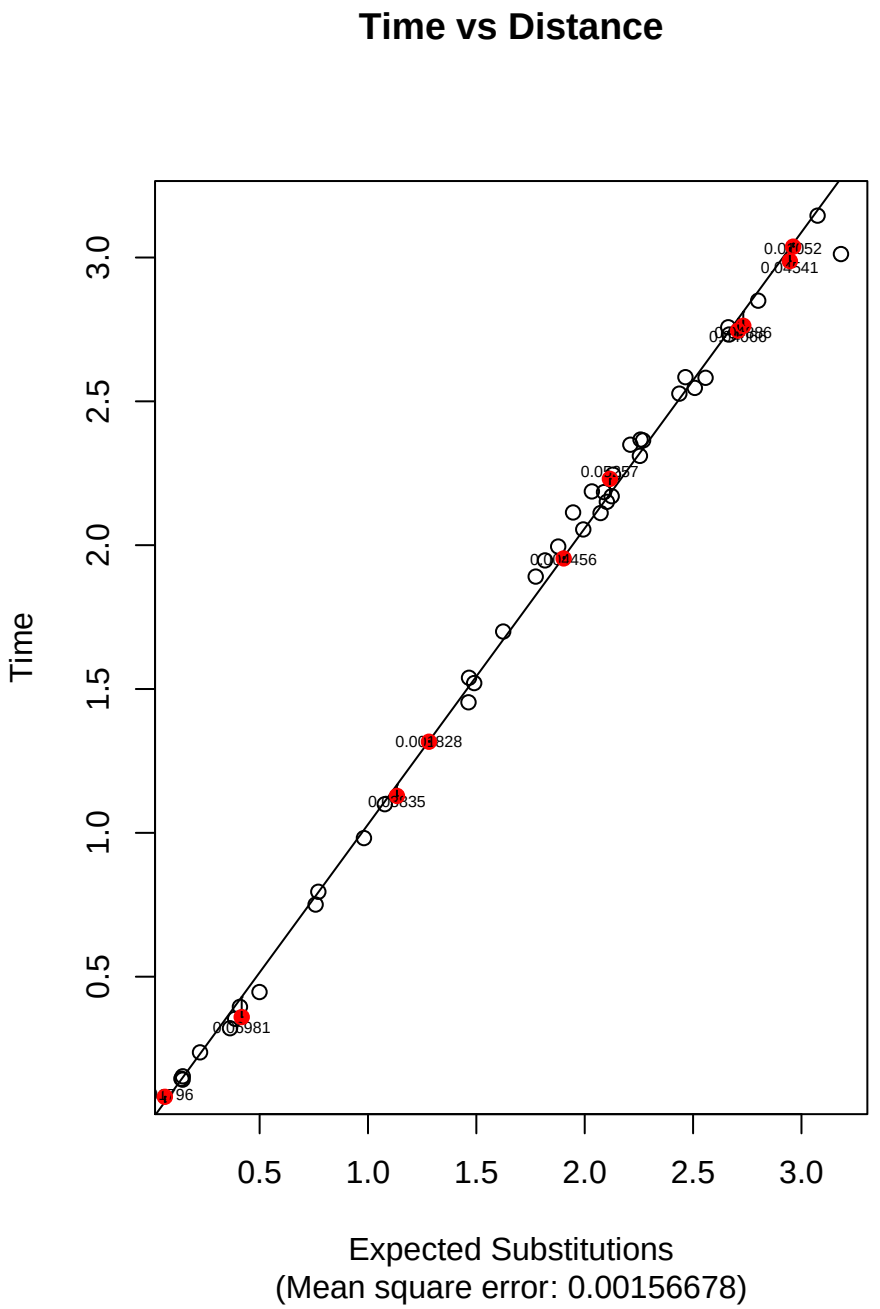

HIV RNA: Simulated−no.4 (Remove 10)
u46 t37 0.334822466843122
u48 t14 0.255344786871419
u11 t13 0.444233932973714
u39 t5 0.569384884335201
u25 t6 1.1684885103026
u15 t49 1.09937422293203
u50 t43 0.969505478027148
u10 t4 0.996673902449802
u12 t20 0.997440555185427
u19 t22 0.715936556318981
???
u28 t25 1.28941101377786
u33 t28 1.15499699642168
???
u35 t31 1.33087386880054
???
u41 t12 1.26499818328879
u23 t47 0.831761688195796
u29 t42 1.16846786157983
???
u21 t36 0.69752838875785
u16 t41 0.753180787349289
u22 t7 0.818768347531546
u17 t16 0.794283141049231
???
???
u8 t26 0.796923322424875
u13 t19 0.744245046843611
u42 t38 1.14903544693182
u38 t18 1.42481062554366
???
???
u9 t15 1.26185616307573
u18 t48 1.34245788134575
u20 t40 1.32631441644273
u40 t29 1.39527293173104
???
u34 t17 0.83774949724717
???
u24 t30 0.859756888461425
u14 t8 0.987748072934515
u3 t10 0.992473089303674
u37 t32 0.96152604448871
u6 t1 0.816489063064156
u45 t9 0.908256028967296
u5 t21 0.965964179931312
u44 t24 1.21362227195498
u7 t46 0.870916912294182
u27 t27 0.404522250802209
u31 t45 0.139866470534297

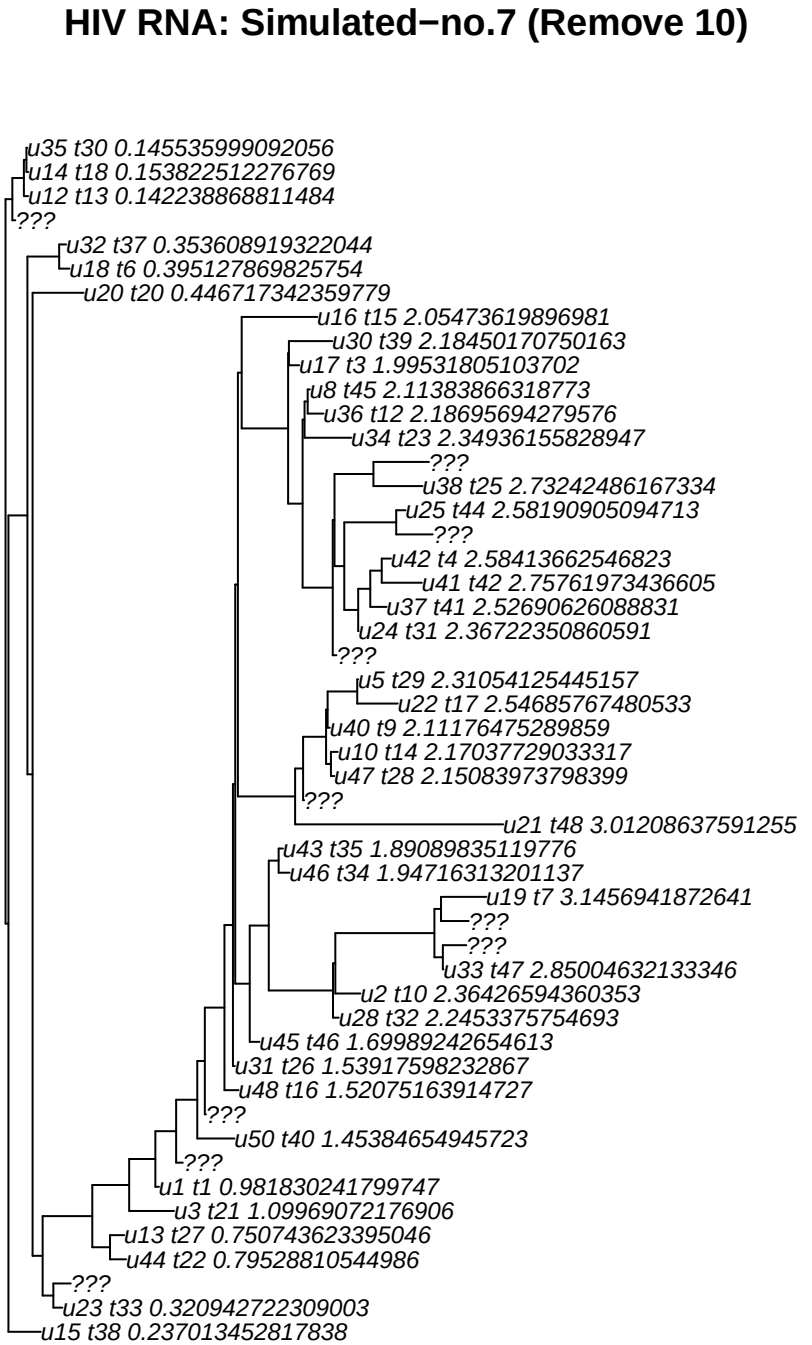

Time vs Distance
Time
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.04309
0.04281
0.08933
Expected Substitutions
(Mean square error: 0.0017185)

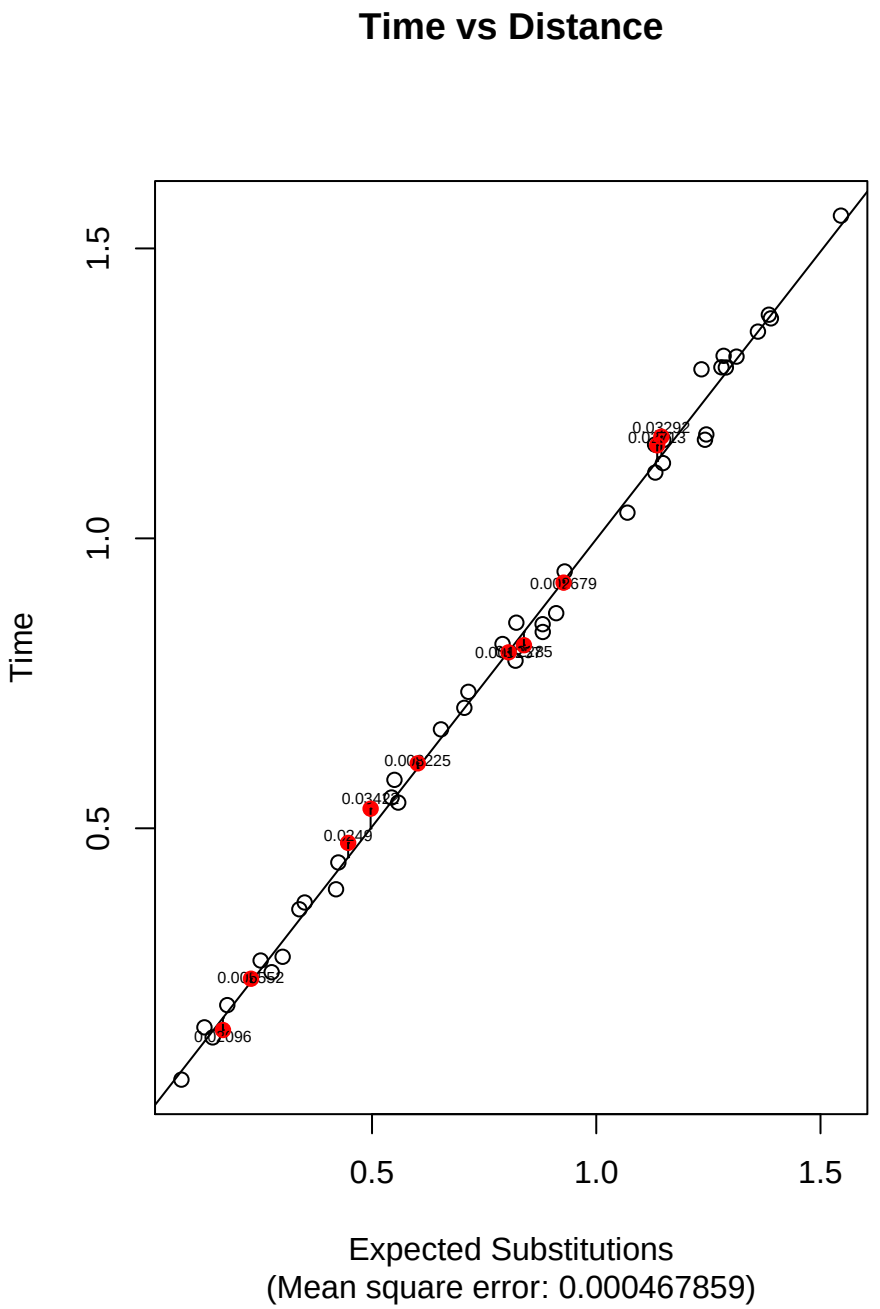

HIV RNA: Simulated−no.5 (Remove 10)
u11 t23 0.195129963460071
u1 t1 0.583587796135931
u9 t14 0.533855443447604
???
u7 t26 0.670643340317749
u22 t39 0.854637865880641
u36 t7 0.735390701575018
u25 t3 0.612028588233145
u30 t18 0.360394940854326
u49 t20 0.441132521237999
u8 t11 0.240604591451125
u21 t25 0.152132599583736
u35 t22 0.0666231155861313
???
u40 t27 0.94300031150351
u33 t30 1.17550870848574
u6 t35 1.2950699306864
u19 t5 1.38577098734858
???
u17 t9 0.553194600048749
u43 t21 1.17010093831991
???
u18 t19 0.817848247976032
u27 t40 0.544385470798026
u31 t8 1.11353583871627
???
u12 t33 1.16177099742304
???
u23 t47 0.815809691322469
u29 t41 0.85200912373086
u45 t17 0.838590362655003
u10 t37 0.139422784722148
u20 t13 0.278460588685368
u37 t15 0.707794849740519
???
u41 t46 1.31483733276928
u14 t31 1.29157040610593
u39 t6 1.12982301373754
???
u4 t29 1.29473758106534
u47 t32 1.37944088621388
???
???
u2 t12 1.16957771742044
u3 t44 1.17927490621708
u13 t24 0.871005789344573
u5 t2 0.39484132534095
u26 t36 0.251904645088735
u15 t42 0.156797186901536
u48 t28 0.37209691410908

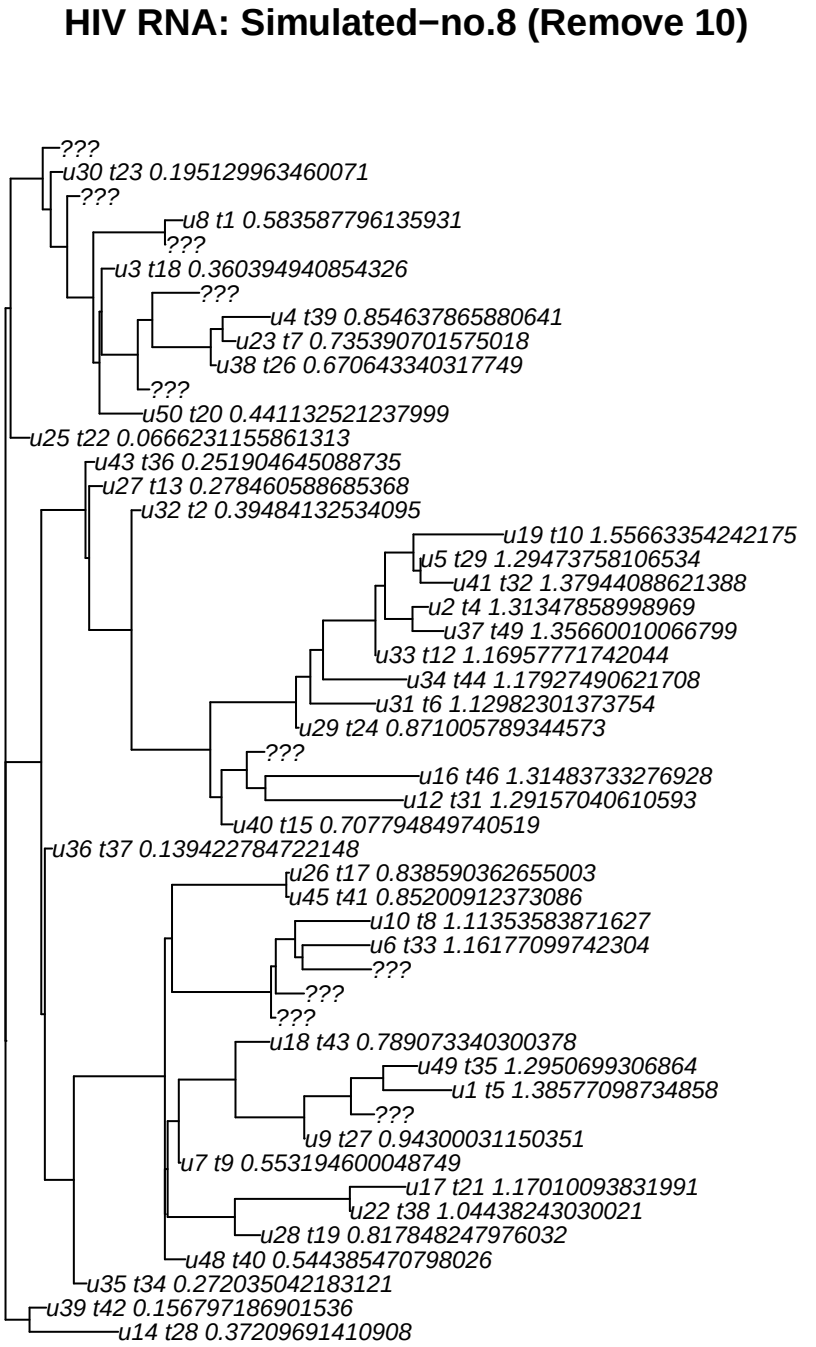

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00261409)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.04167
0.04419
0.09826
0.04284

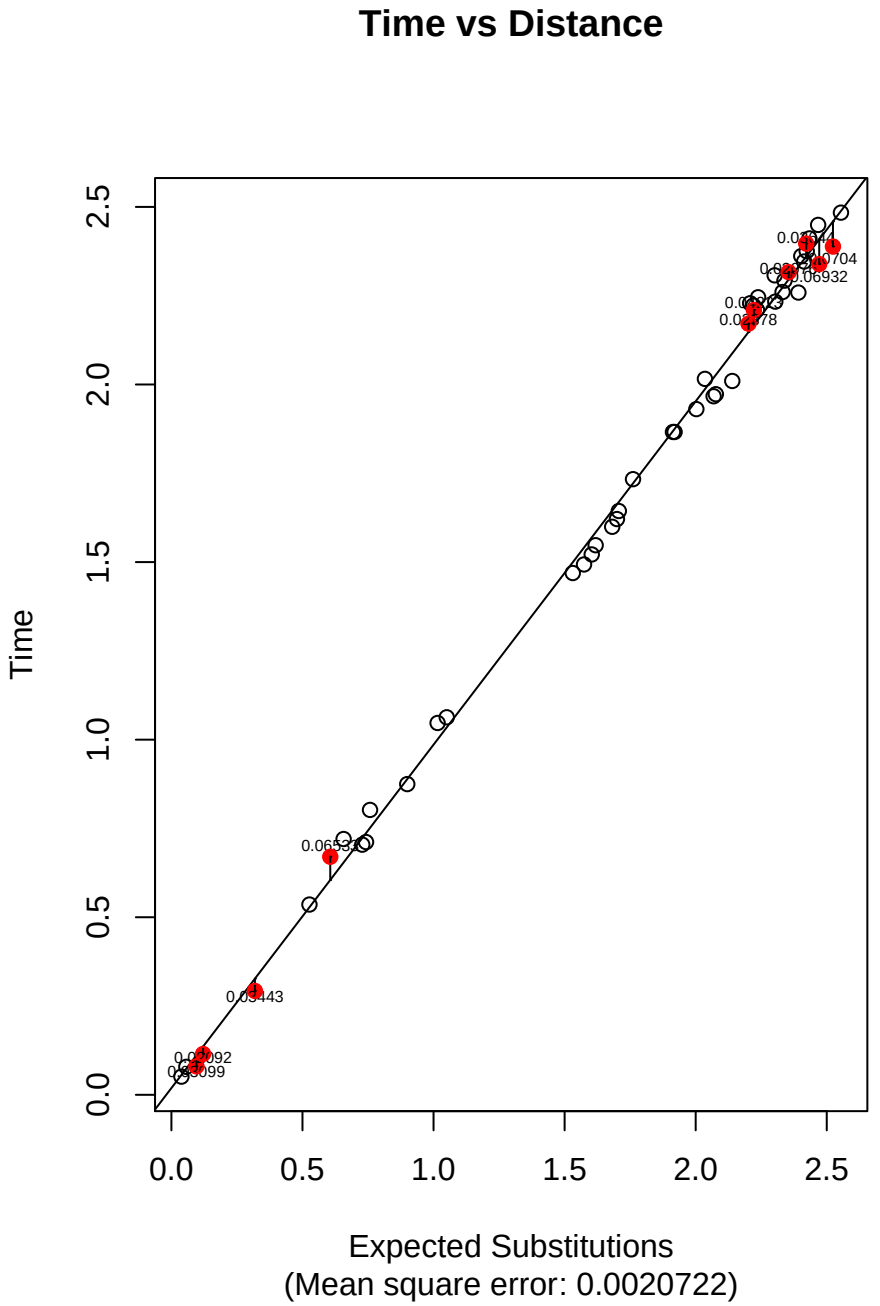

HIV RNA: Simulated−no.6 (Remove 10)
u24 t38 1.04438243030021
u29 t21 1.17010093831991
u16 t19 0.817848247976032
u3 t40 0.544385470798026
u9 t41 0.85200912373086
u15 t17 0.838590362655003
u26 t9 0.553194600048749
u17 t27 0.94300031150351
???
u35 t5 1.38577098734858
???
u6 t43 0.789073340300378
u2 t47 0.815809691322469
u30 t16 1.16051829219324
u34 t33 1.16177099742304
???
u40 t45 0.923718420572944
u48 t34 0.272035042183121
u5 t37 0.139422784722148
???
u38 t31 1.29157040610593
u46 t46 1.31483733276928
u47 t15 0.707794849740519
u20 t32 1.37944088621388
u42 t29 1.29473758106534
u18 t10 1.55663354242175
u21 t49 1.35660010066799
u39 t4 1.31347858998969
u8 t12 1.16957771742044
u45 t44 1.17927490621708
u31 t6 1.12982301373754
???
u1 t2 0.39484132534095
u37 t13 0.278460588685368
u28 t36 0.251904645088735
u22 t28 0.37209691410908
u50 t42 0.156797186901536
u19 t25 0.152132599583736
u14 t11 0.240604591451125
???
u33 t18 0.360394940854326
u44 t50 0.474878369704395
???
u23 t26 0.670643340317749
???
u41 t7 0.735390701575018
u43 t14 0.533855443447604
u49 t1 0.583587796135931
???
???

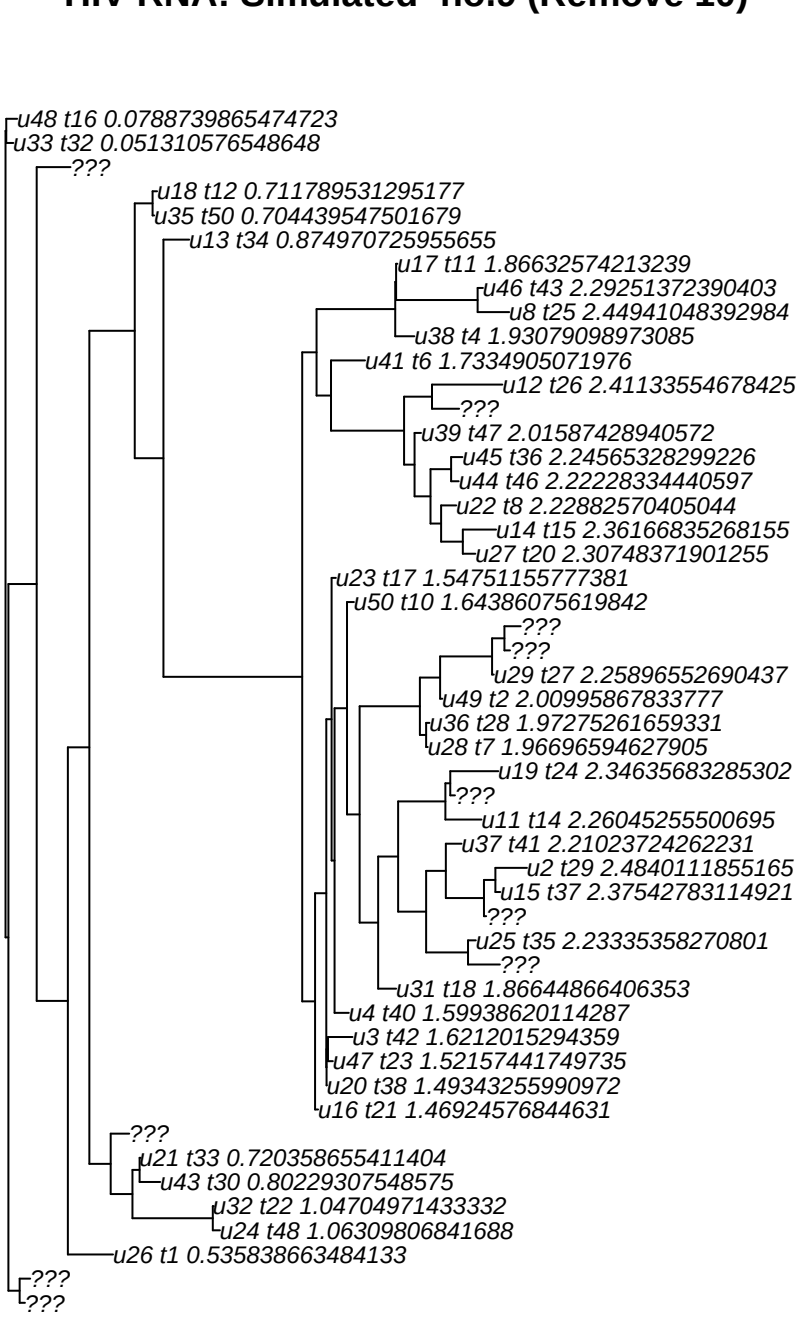

Time vs Distance
Time
0.5
1.0
1.5
2.0
2.5
3.0
Expected Substitutions
(Mean square error: 0.00156678)


HIV RNA: Simulated−no.7 (Remove 10)
u35 t30 0.145535999092056
u14 t18 0.153822512276769
u12 t13 0.142238868811484
???
u32 t37 0.353608919322044
u18 t6 0.395127869825754
u20 t20 0.446717342359779
u16 t15 2.05473619896981
u30 t39 2.18450170750163
u17 t3 1.99531805103702
u8 t45 2.11383866318773
u36 t12 2.18695694279576
u34 t23 2.34936155828947
???
u38 t25 2.73242486167334
u25 t44 2.58190905094713
???
u42 t4 2.58413662546823
u41 t42 2.75761973436605
u37 t41 2.52690626088831
u24 t31 2.36722350860591
???
u5 t29 2.31054125445157
u22 t17 2.54685767480533
u40 t9 2.11176475289859
u10 t14 2.17037729033317
u47 t28 2.15083973798399
???
u21 t48 3.01208637591255
u43 t35 1.89089835119776
u46 t34 1.94716313201137
u19 t7 3.1456941872641
???
???
u33 t47 2.85004632133346
u2 t10 2.36426594360353
u28 t32 2.2453375754693
u45 t46 1.69989242654613
u31 t26 1.53917598232867
u48 t16 1.52075163914727
???
u50 t40 1.45384654945723
???
u1 t1 0.981830241799747
u3 t21 1.09969072176906
u13 t27 0.750743623395046
u44 t22 0.79528810544986
???
u23 t33 0.320942722309003
u15 t38 0.237013452817838

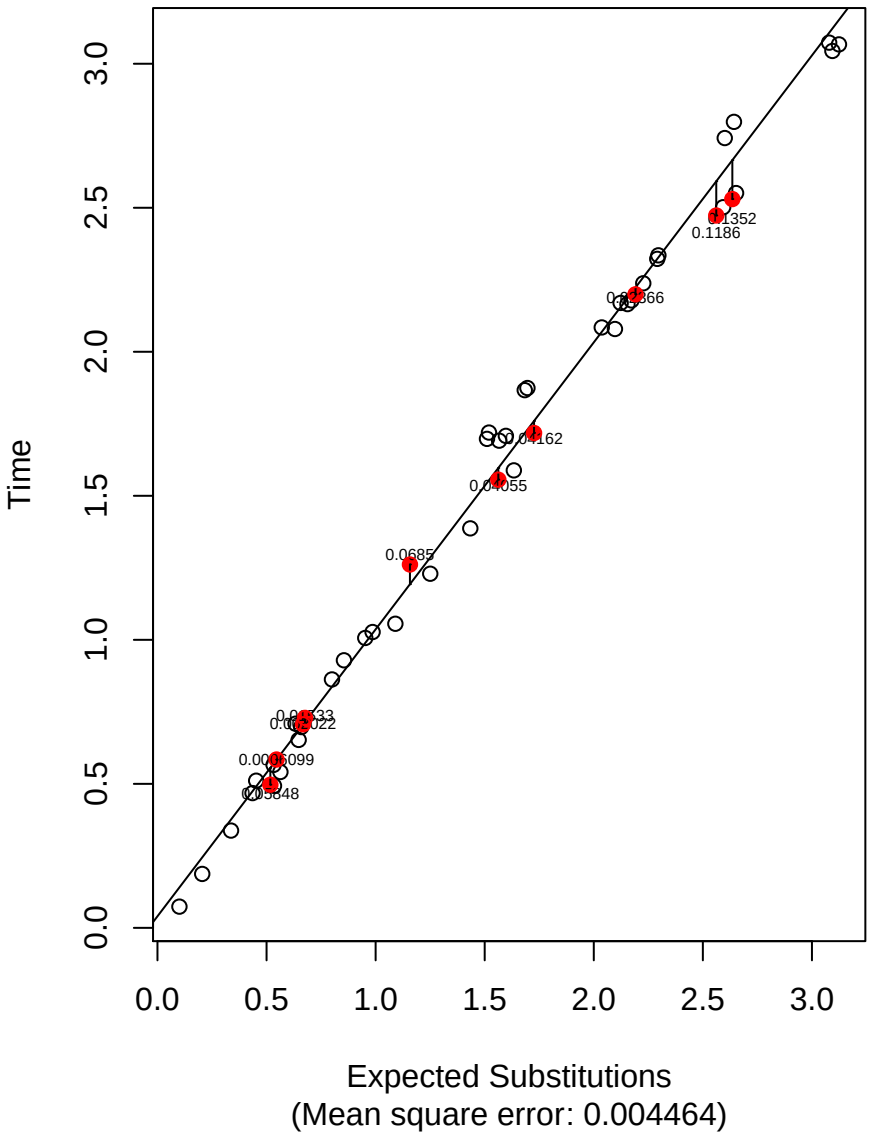

Time vs Distance
Time
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.000467859)


HIV RNA: Simulated−no.8 (Remove 10)
???
u30 t23 0.195129963460071
???
u8 t1 0.583587796135931
???
u3 t18 0.360394940854326
???
u4 t39 0.854637865880641
u23 t7 0.735390701575018
u38 t26 0.670643340317749
???
u50 t20 0.441132521237999
u25 t22 0.0666231155861313
u43 t36 0.251904645088735
u27 t13 0.278460588685368
u32 t2 0.39484132534095
u19 t10 1.55663354242175
u5 t29 1.29473758106534
u41 t32 1.37944088621388
u2 t4 1.31347858998969
u37 t49 1.35660010066799
u33 t12 1.16957771742044
u34 t44 1.17927490621708
u31 t6 1.12982301373754
u29 t24 0.871005789344573
???
u16 t46 1.31483733276928
u12 t31 1.29157040610593
u40 t15 0.707794849740519
u36 t37 0.139422784722148
u26 t17 0.838590362655003
u45 t41 0.85200912373086
u10 t8 1.11353583871627
u6 t33 1.16177099742304
???
???
???
u18 t43 0.789073340300378
u49 t35 1.2950699306864
u1 t5 1.38577098734858
???
u9 t27 0.94300031150351
u7 t9 0.553194600048749
u17 t21 1.17010093831991
u22 t38 1.04438243030021
u28 t19 0.817848247976032
u48 t40 0.544385470798026
u35 t34 0.272035042183121
u39 t42 0.156797186901536
u14 t28 0.37209691410908

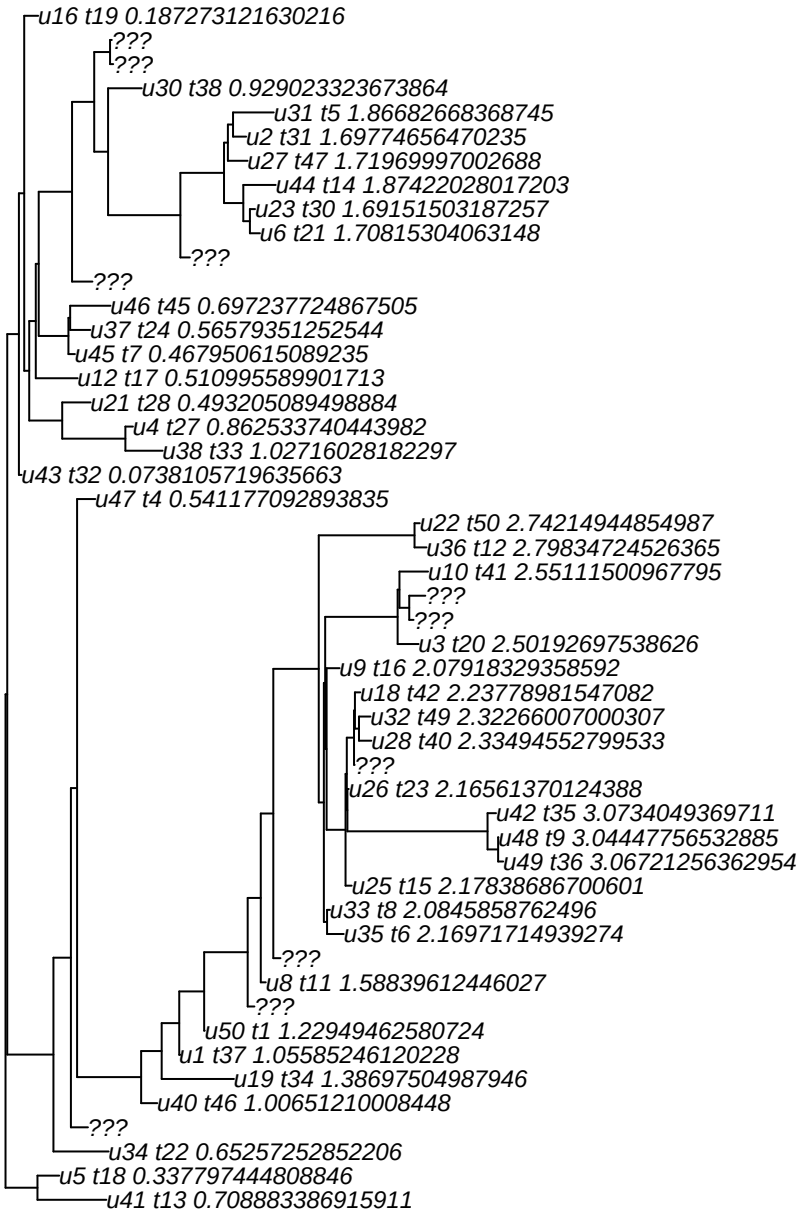

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
Expected Substitutions
(Mean square error: 0.0020722)

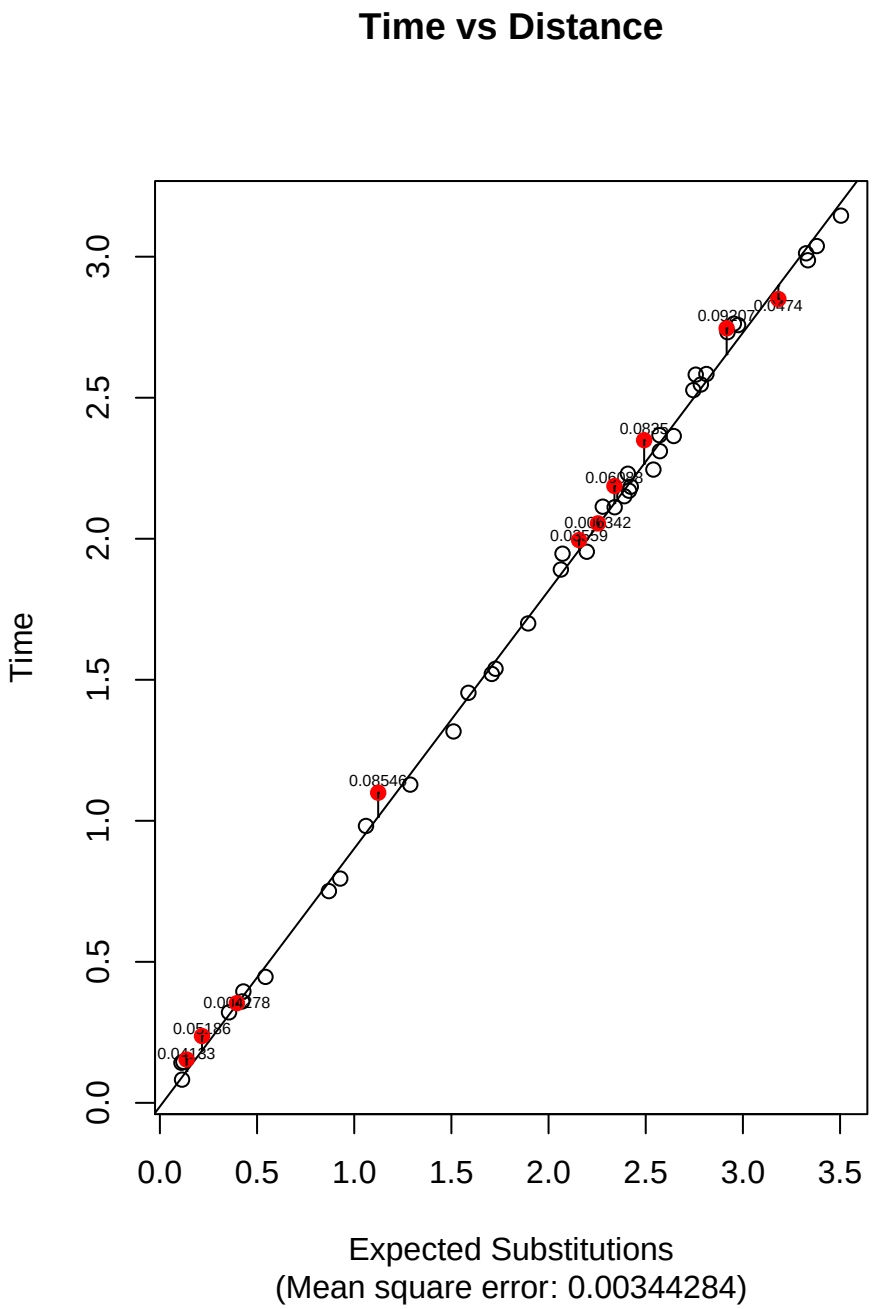

HIV RNA: Simulated−no.9 (Remove 10)
u48 t16 0.0788739865474723
u33 t32 0.051310576548648
???
u18 t12 0.711789531295177
u35 t50 0.704439547501679
u13 t34 0.874970725955655
u17 t11 1.86632574213239
u46 t43 2.29251372390403
u8 t25 2.44941048392984
u38 t4 1.93079098973085
u41 t6 1.7334905071976
u12 t26 2.41133554678425
???
u39 t47 2.01587428940572
u45 t36 2.24565328299226
u44 t46 2.22228334440597
u22 t8 2.22882570405044
u14 t15 2.36166835268155
u27 t20 2.30748371901255
u23 t17 1.54751155777381
u50 t10 1.64386075619842
???
???
u29 t27 2.25896552690437
u49 t2 2.00995867833777
u36 t28 1.97275261659331
u28 t7 1.96696594627905
u19 t24 2.34635683285302
???
u11 t14 2.26045255500695
u37 t41 2.21023724262231
u2 t29 2.4840111855165
u15 t37 2.37542783114921
???
u25 t35 2.23335358270801
???
u31 t18 1.86644866406353
u4 t40 1.59938620114287
u3 t42 1.6212015294359
u47 t23 1.52157441749735
u20 t38 1.49343255990972
u16 t21 1.46924576844631
???
u21 t33 0.720358655411404
u43 t30 0.80229307548575
u32 t22 1.04704971433332
u24 t48 1.06309806841688
u26 t1 0.535838663484133
???
???

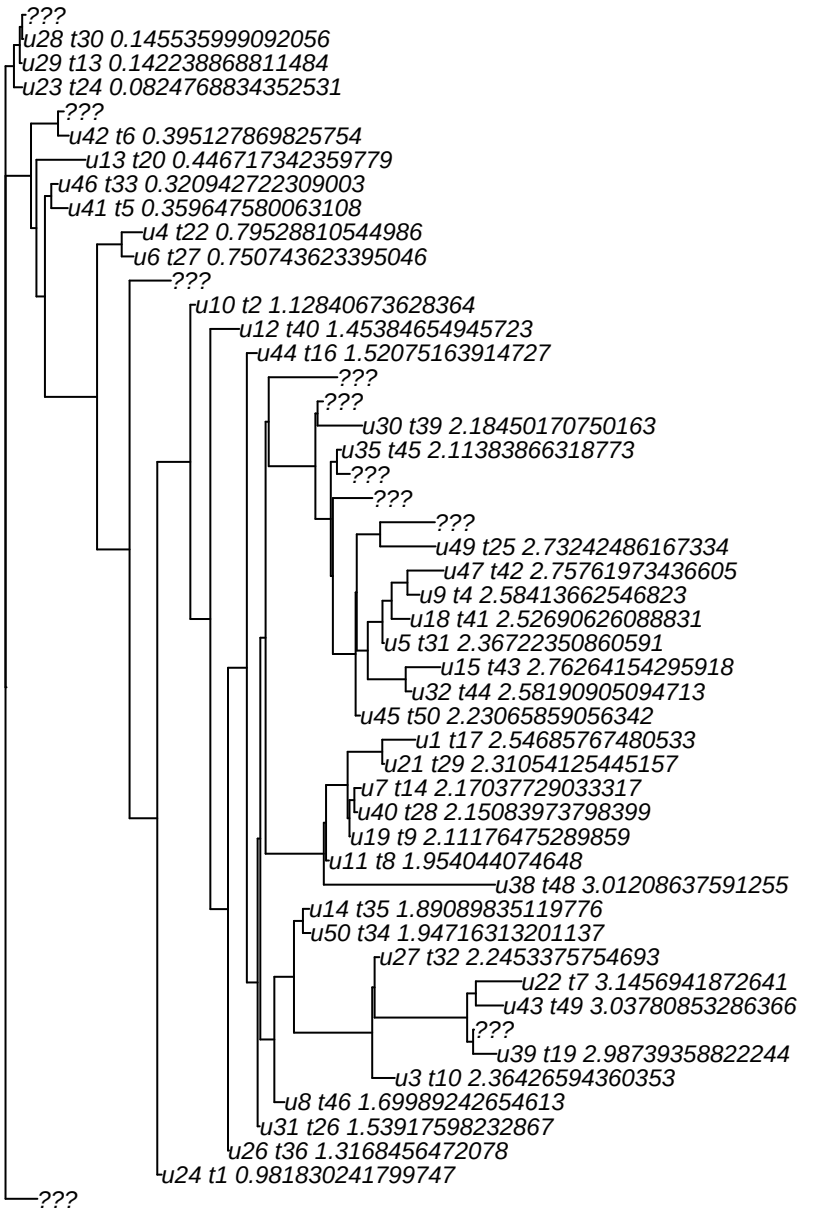
Time vs Distance

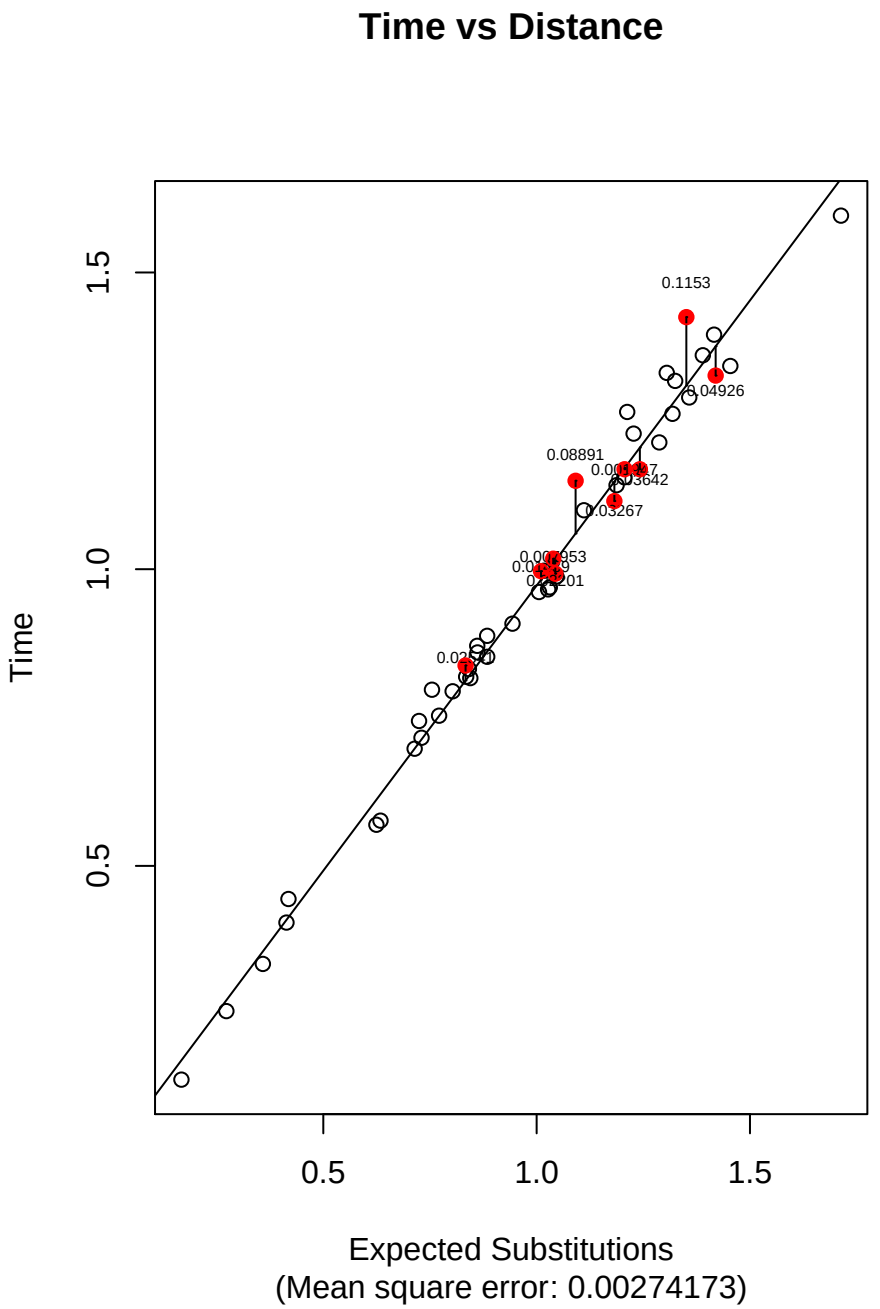


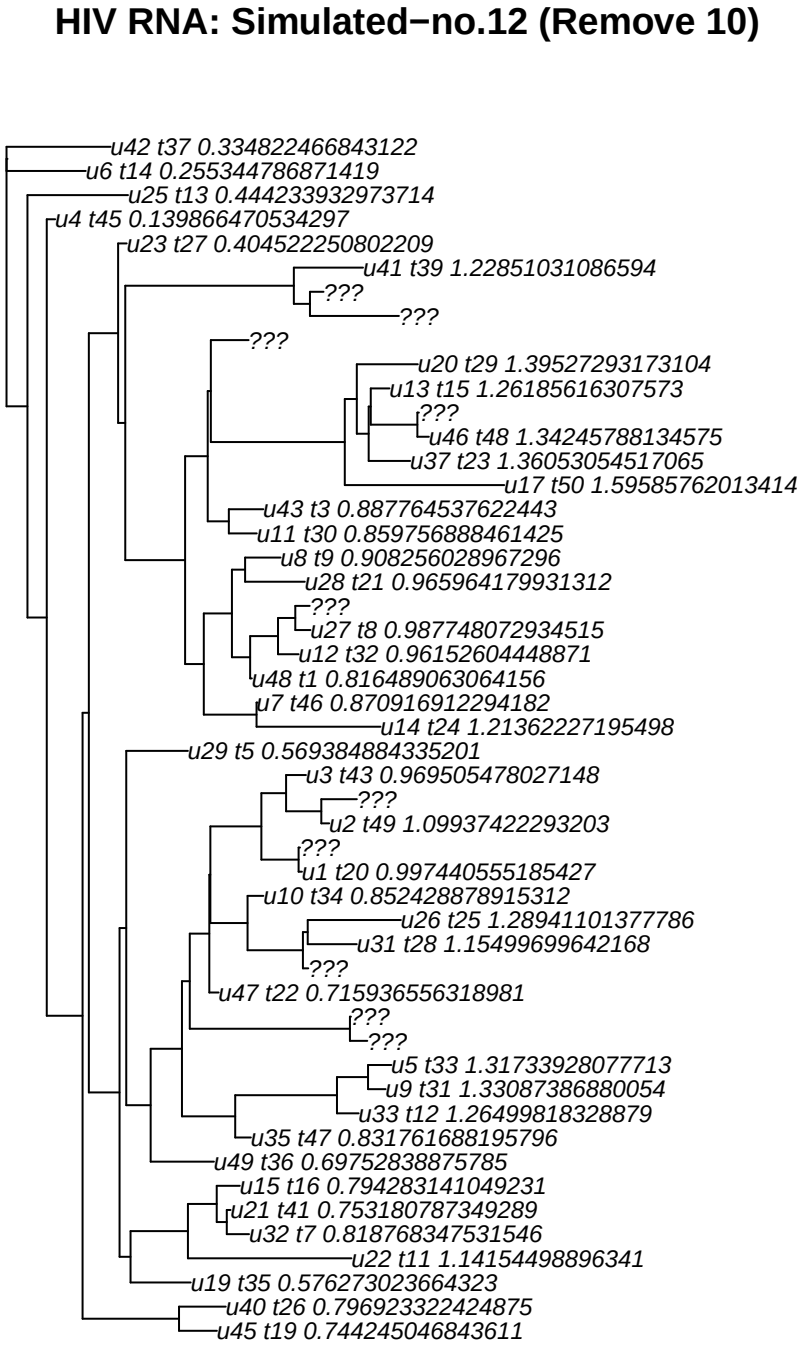
HIV RNA: Simulated−no.10 (Remove 10)

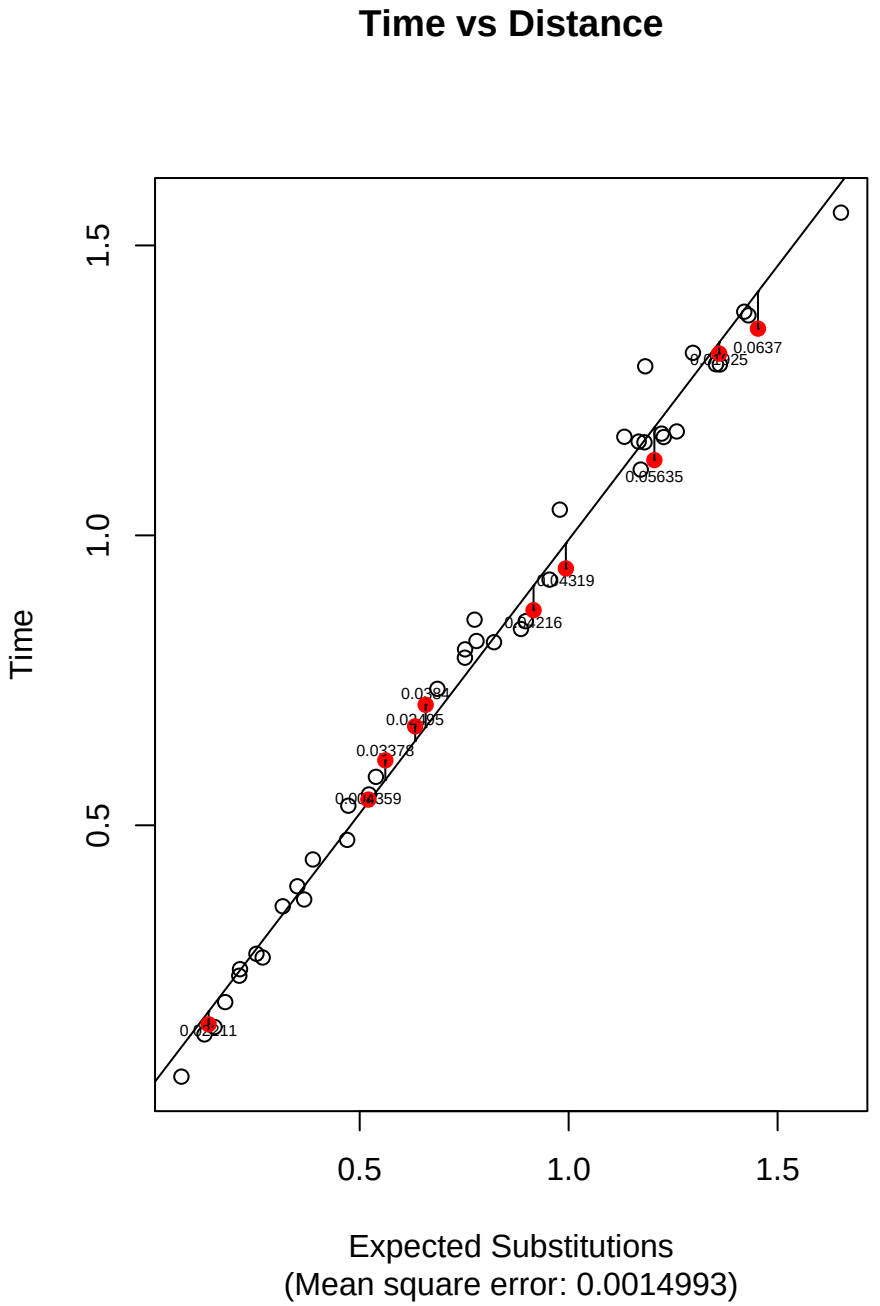


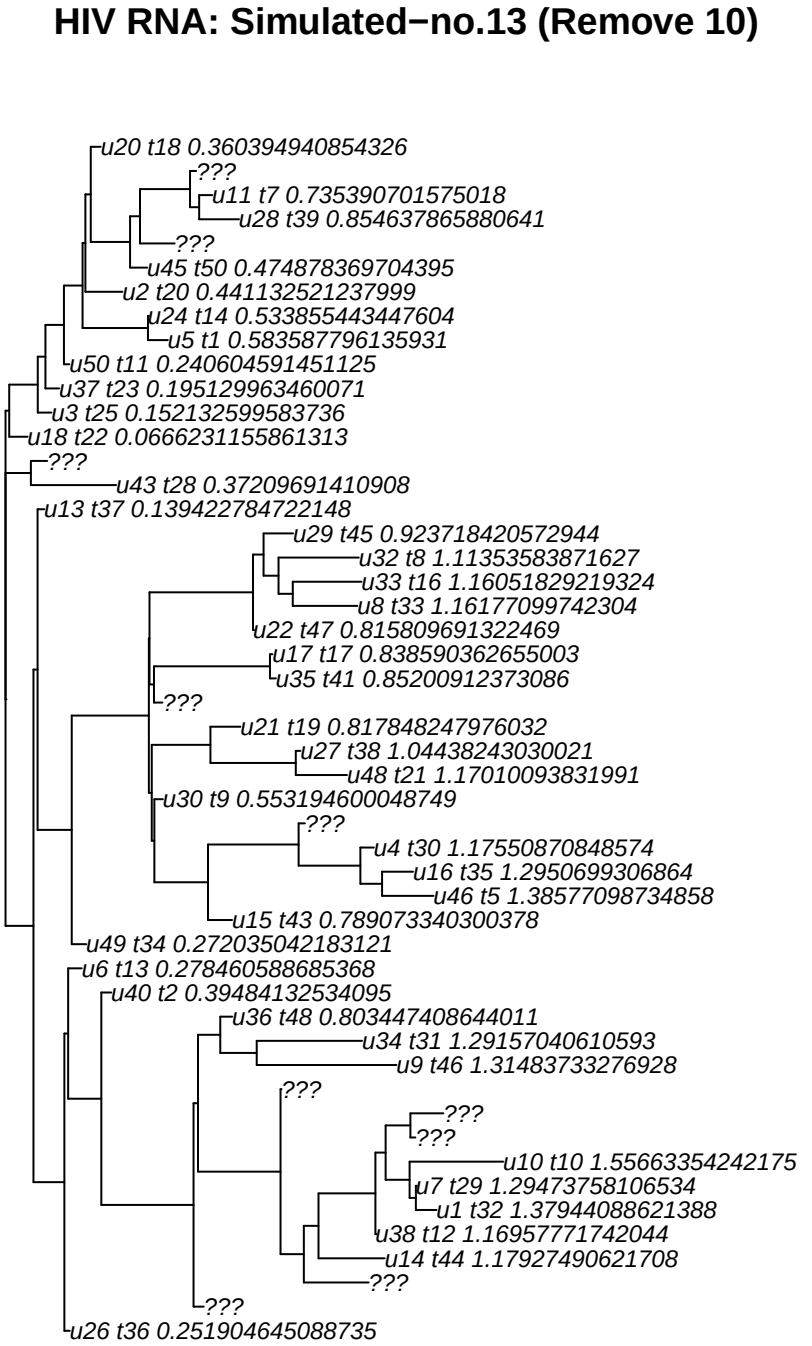

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00344284)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0.08546
0.08559
0.0825
0.09207
0.0474
0.05186
0.04133

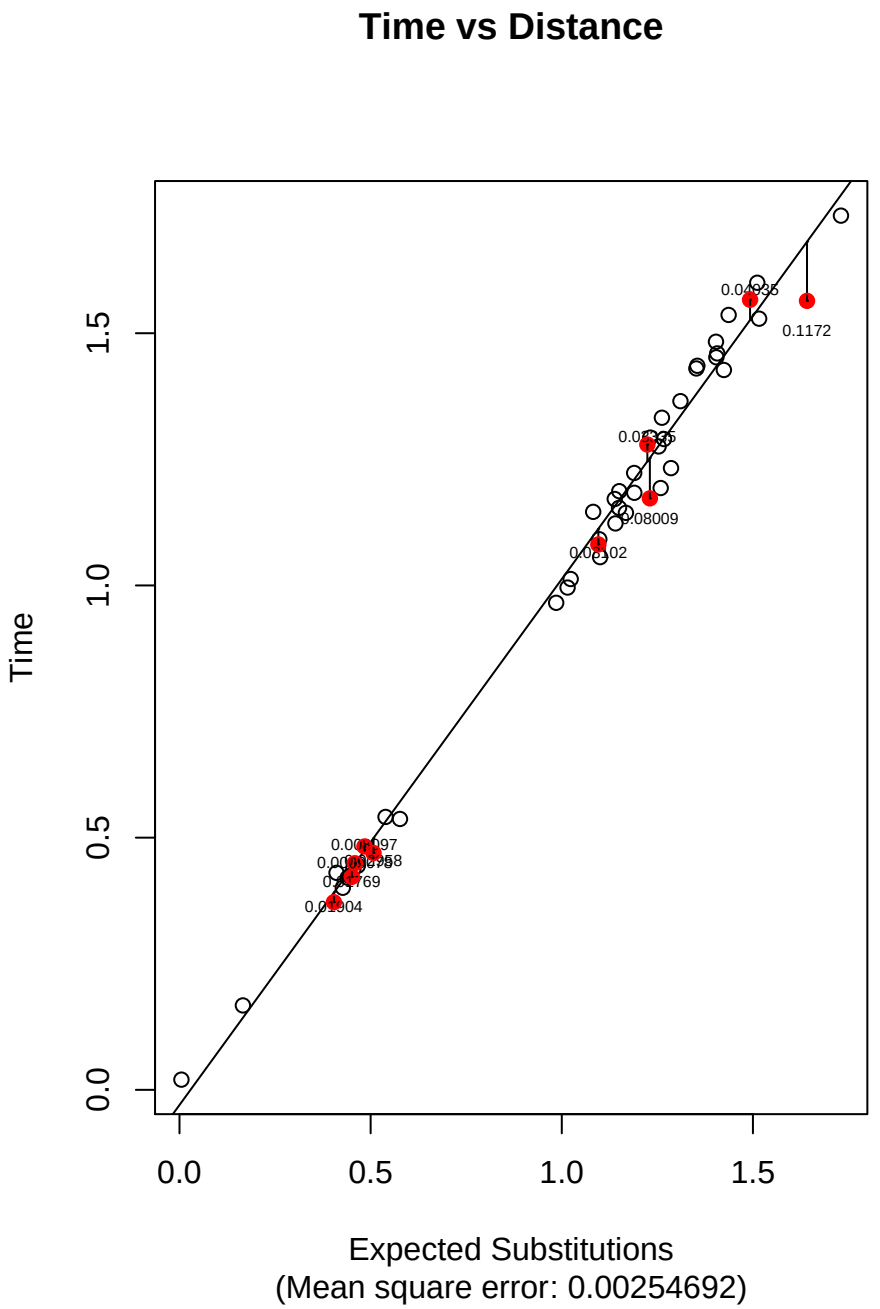

HIV RNA: Simulated−no.11 (Remove 10)
???
u28 t30 0.145535999092056
u29 t13 0.142238868811484
u23 t24 0.0824768834352531
???
u42 t6 0.395127869825754
u13 t20 0.446717342359779
u46 t33 0.320942722309003
u41 t5 0.359647580063108
u4 t22 0.79528810544986
u6 t27 0.750743623395046
???
u10 t2 1.12840673628364
u12 t40 1.45384654945723
u44 t16 1.52075163914727
???
???
u30 t39 2.18450170750163
u35 t45 2.11383866318773
???
???
???
u49 t25 2.73242486167334
u47 t42 2.75761973436605
u9 t4 2.58413662546823
u18 t41 2.52690626088831
u5 t31 2.36722350860591
u15 t43 2.76264154295918
u32 t44 2.58190905094713
u45 t50 2.23065859056342
u1 t17 2.54685767480533
u21 t29 2.31054125445157
u7 t14 2.17037729033317
u40 t28 2.15083973798399
u19 t9 2.11176475289859
u11 t8 1.954044074648
u38 t48 3.01208637591255
u14 t35 1.89089835119776
u50 t34 1.94716313201137
u27 t32 2.2453375754693
u22 t7 3.1456941872641
u43 t49 3.03780853286366
???
u39 t19 2.98739358822244
u3 t10 2.36426594360353
u8 t46 1.69989242654613
u31 t26 1.53917598232867
u26 t36 1.3168456472078
u24 t1 0.981830241799747
???

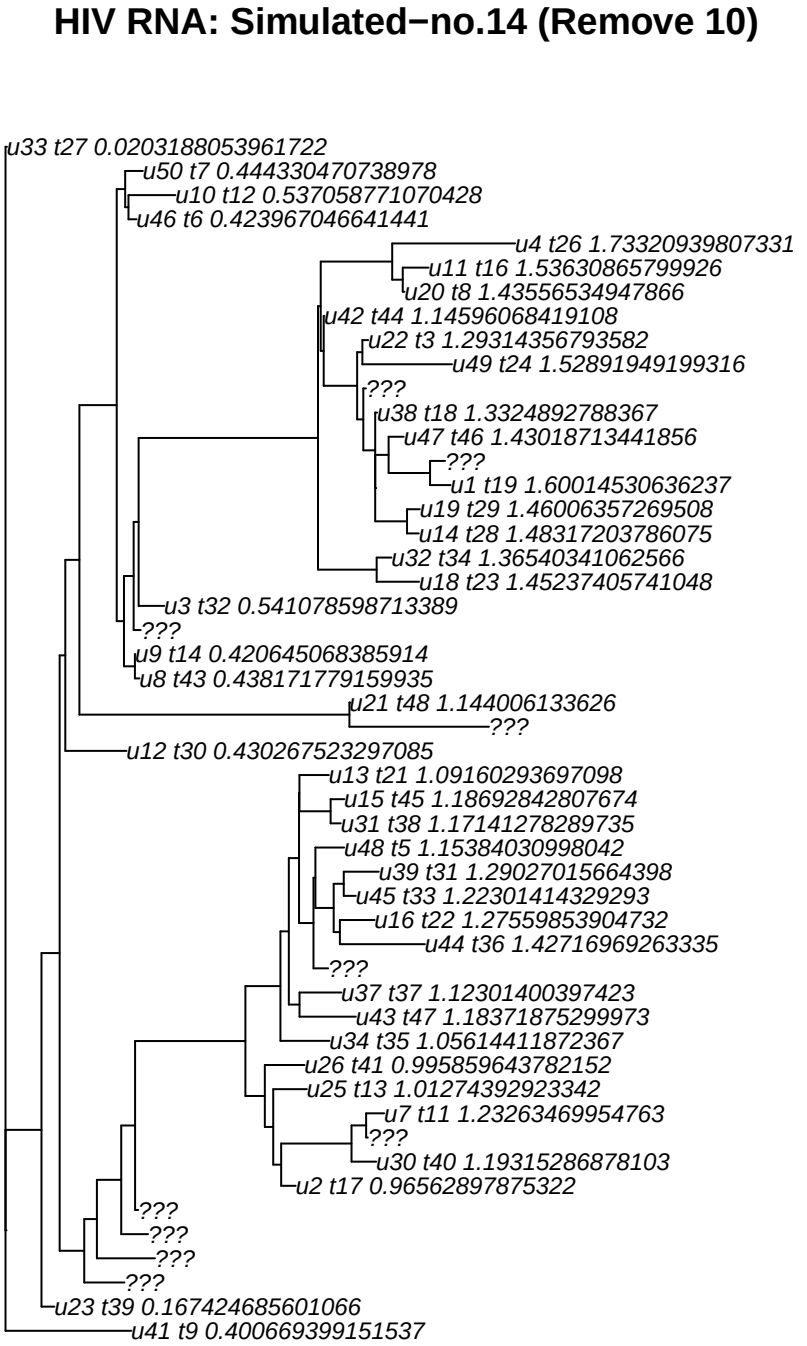

Time vs Distance
Time
0.5
1.0
1.5
0.1153
0.04926
0.08891
0.03642
0.03267
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00274173)

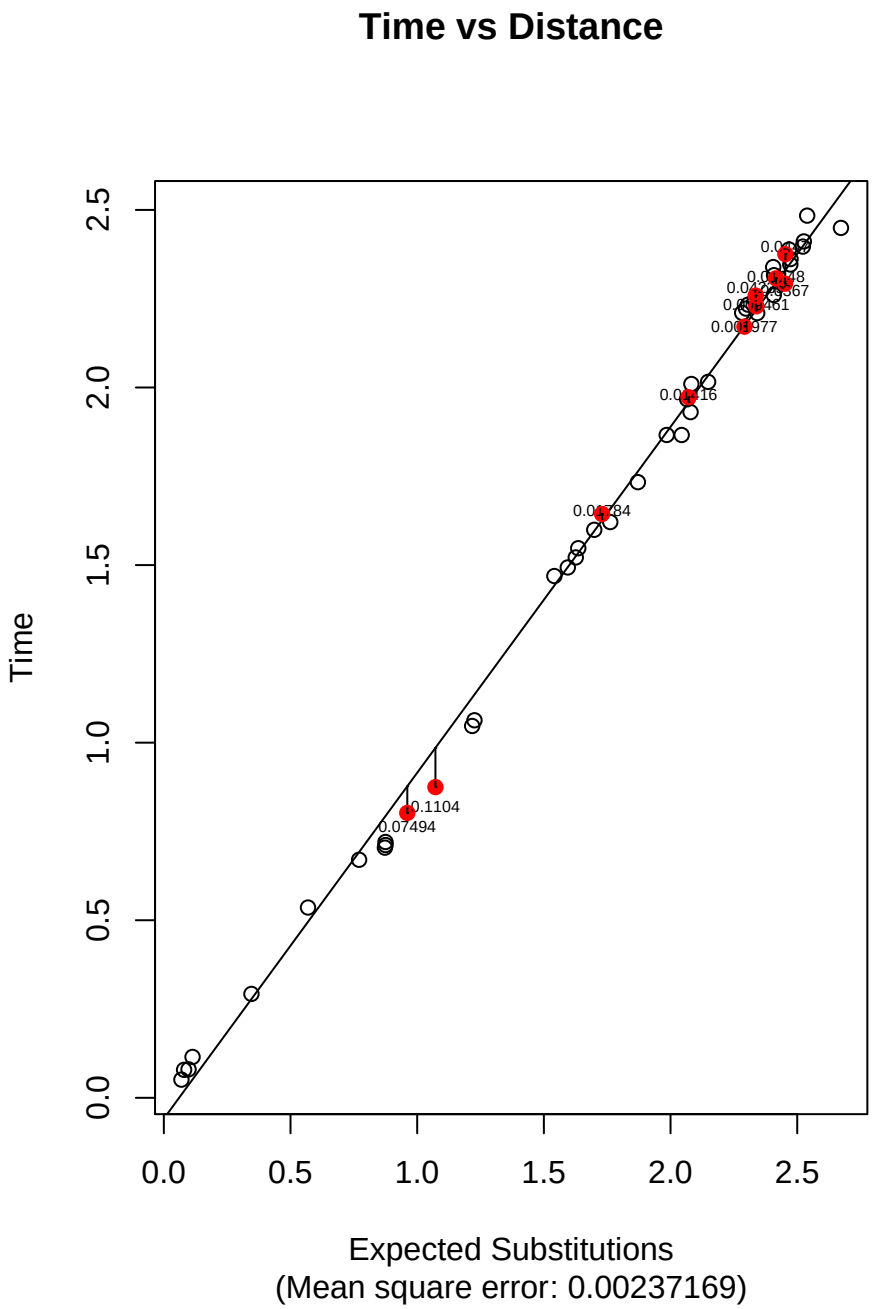

HIV RNA: Simulated−no.12 (Remove 10)
u42 t37 0.334822466843122
u6 t14 0.255344786871419
u25 t13 0.444233932973714
u4 t45 0.139866470534297
u23 t27 0.404522250802209
u41 t39 1.22851031086594
???
???
???
u20 t29 1.39527293173104
u13 t15 1.26185616307573
???
u46 t48 1.34245788134575
u37 t23 1.36053054517065
u17 t50 1.59585762013414
u43 t3 0.887764537622443
u11 t30 0.859756888461425
u8 t9 0.908256028967296
u28 t21 0.965964179931312
???
u27 t8 0.987748072934515
u12 t32 0.96152604448871
u48 t1 0.816489063064156
u7 t46 0.870916912294182
u14 t24 1.21362227195498
u29 t5 0.569384884335201
u3 t43 0.969505478027148
???
u2 t49 1.09937422293203
???
u1 t20 0.997440555185427
u10 t34 0.852428878915312
u26 t25 1.28941101377786
u31 t28 1.15499699642168
???
u47 t22 0.715936556318981
???
???
u5 t33 1.31733928077713
u9 t31 1.33087386880054
u33 t12 1.26499818328879
u35 t47 0.831761688195796
u49 t36 0.69752838875785
u15 t16 0.794283141049231
u21 t41 0.753180787349289
u32 t7 0.818768347531546
u22 t11 1.14154498896341
u19 t35 0.576273023664323
u40 t26 0.796923322424875
u45 t19 0.744245046843611

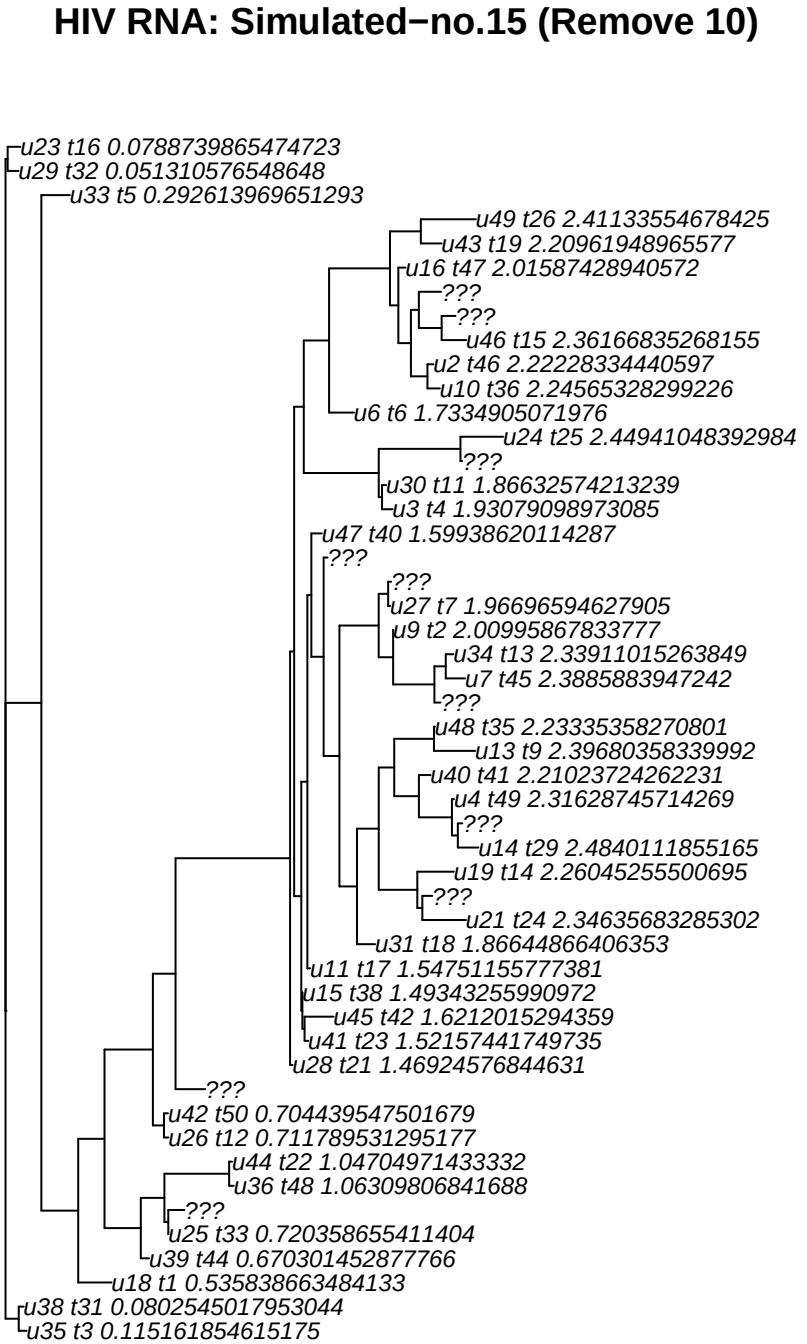

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.0014993)
0.0637
0.05635
0.04319
0.04216
0.0384
0.02495
0.03378
0.004359
0.02211

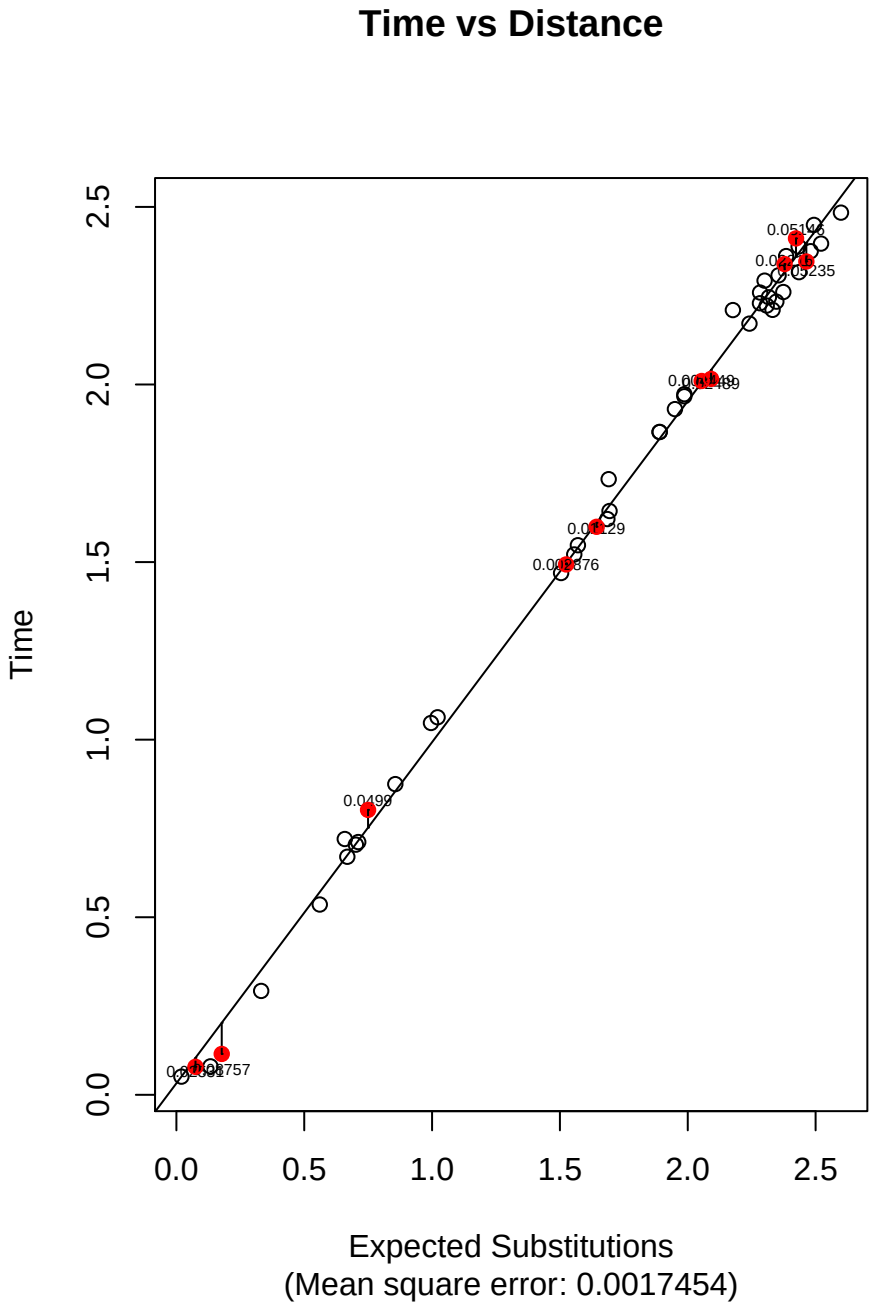

HIV RNA: Simulated−no.13 (Remove 10)
u20 t18 0.360394940854326
???
u11 t7 0.735390701575018
u28 t39 0.854637865880641
???
u45 t50 0.474878369704395
u2 t20 0.441132521237999
u24 t14 0.533855443447604
u5 t1 0.583587796135931
u50 t11 0.240604591451125
u37 t23 0.195129963460071
u3 t25 0.152132599583736
u18 t22 0.0666231155861313
???
u43 t28 0.37209691410908
u13 t37 0.139422784722148
u29 t45 0.923718420572944
u32 t8 1.11353583871627
u33 t16 1.16051829219324
u8 t33 1.16177099742304
u22 t47 0.815809691322469
u17 t17 0.838590362655003
u35 t41 0.85200912373086
???
u21 t19 0.817848247976032
u27 t38 1.04438243030021
u48 t21 1.17010093831991
u30 t9 0.553194600048749
???
u4 t30 1.17550870848574
u16 t35 1.2950699306864
u46 t5 1.38577098734858
u15 t43 0.789073340300378
u49 t34 0.272035042183121
u6 t13 0.278460588685368
u40 t2 0.39484132534095
u36 t48 0.803447408644011
u34 t31 1.29157040610593
u9 t46 1.31483733276928
???
???
???
u10 t10 1.55663354242175
u7 t29 1.29473758106534
u1 t32 1.37944088621388
u38 t12 1.16957771742044
u14 t44 1.17927490621708
???
???
u26 t36 0.251904645088735

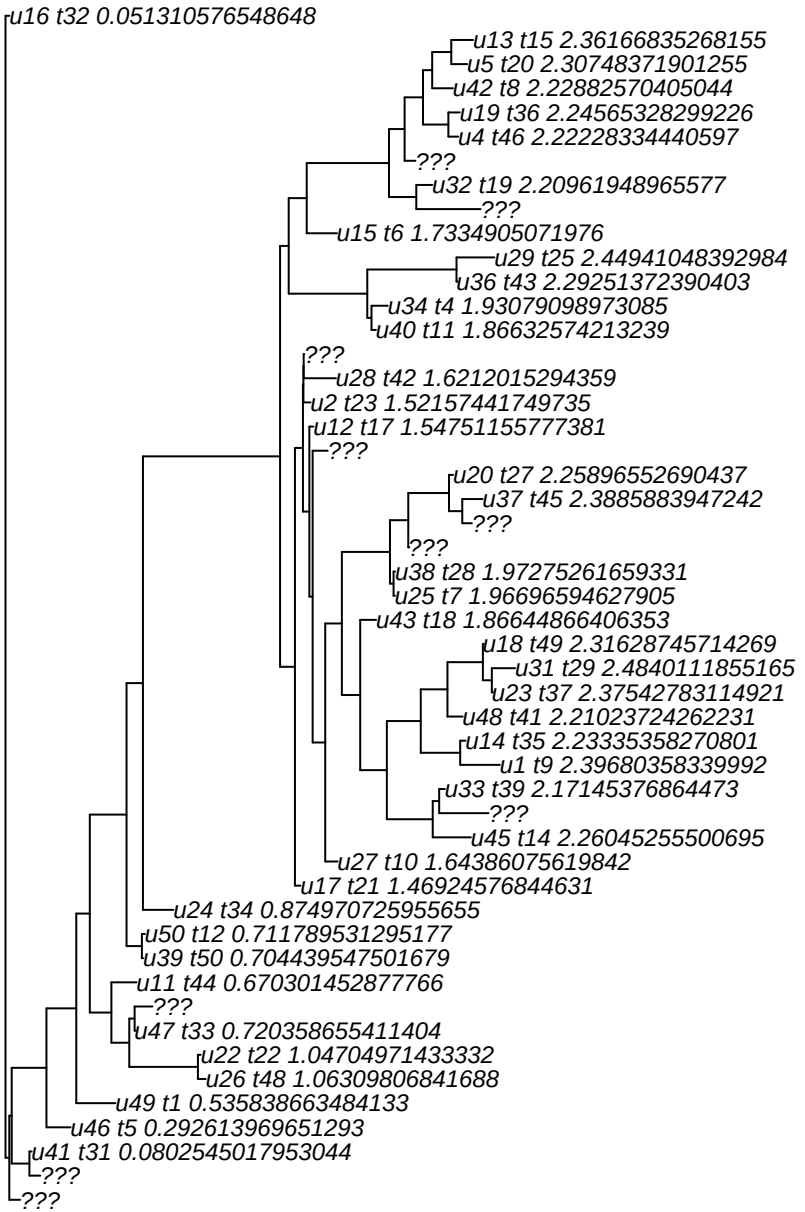

Time vs Distance
Time
0.0
0.5
1.0
1.5
0.1172
0.08009
Expected Substitutions
(Mean square error: 0.00254692)

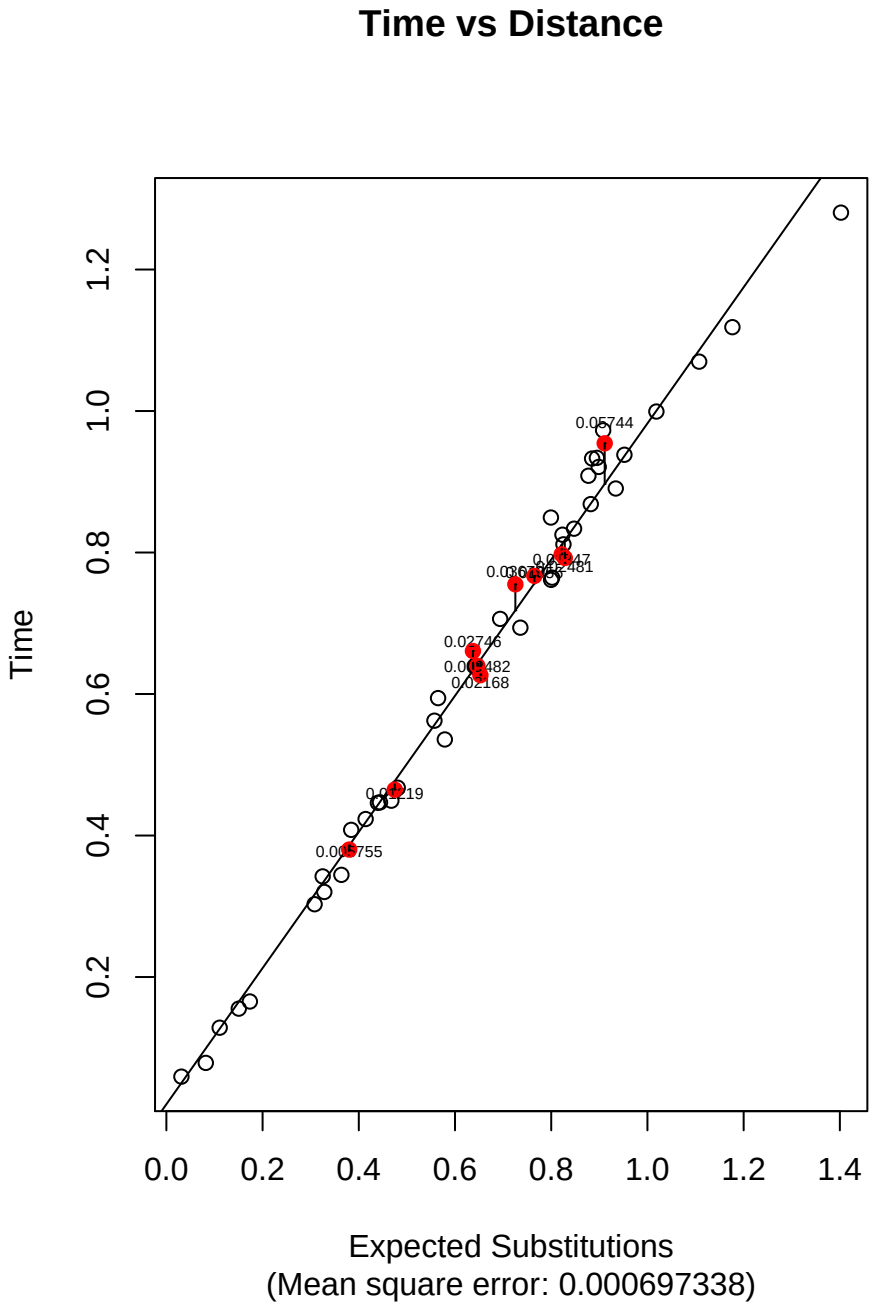

HIV RNA: Simulated−no.14 (Remove 10)
u33 t27 0.0203188053961722
u50 t7 0.444330470738978
u10 t12 0.537058771070428
u46 t6 0.423967046641441
u4 t26 1.73320939807331
u11 t16 1.53630865799926
u20 t8 1.43556534947866
u42 t44 1.14596068419108
u22 t3 1.29314356793582
u49 t24 1.52891949199316
???
u38 t18 1.3324892788367
u47 t46 1.43018713441856
???
u1 t19 1.60014530636237
u19 t29 1.46006357269508
u14 t28 1.48317203786075
u32 t34 1.36540341062566
u18 t23 1.45237405741048
u3 t32 0.541078598713389
???
u9 t14 0.420645068385914
u8 t43 0.438171779159935
u21 t48 1.144006133626
???
u12 t30 0.430267523297085
u13 t21 1.09160293697098
u15 t45 1.18692842807674
u31 t38 1.17141278289735
u48 t5 1.15384030998042
u39 t31 1.29027015664398
u45 t33 1.22301414329293
u16 t22 1.27559853904732
u44 t36 1.42716969263335
???
u37 t37 1.12301400397423
u43 t47 1.18371875299973
u34 t35 1.05614411872367
u26 t41 0.995859643782152
u25 t13 1.01274392923342
u7 t11 1.23263469954763
???
u30 t40 1.19315286878103
u2 t17 0.96562897875322
???
???
???
???
u23 t39 0.167424685601066
u41 t9 0.400669399151537

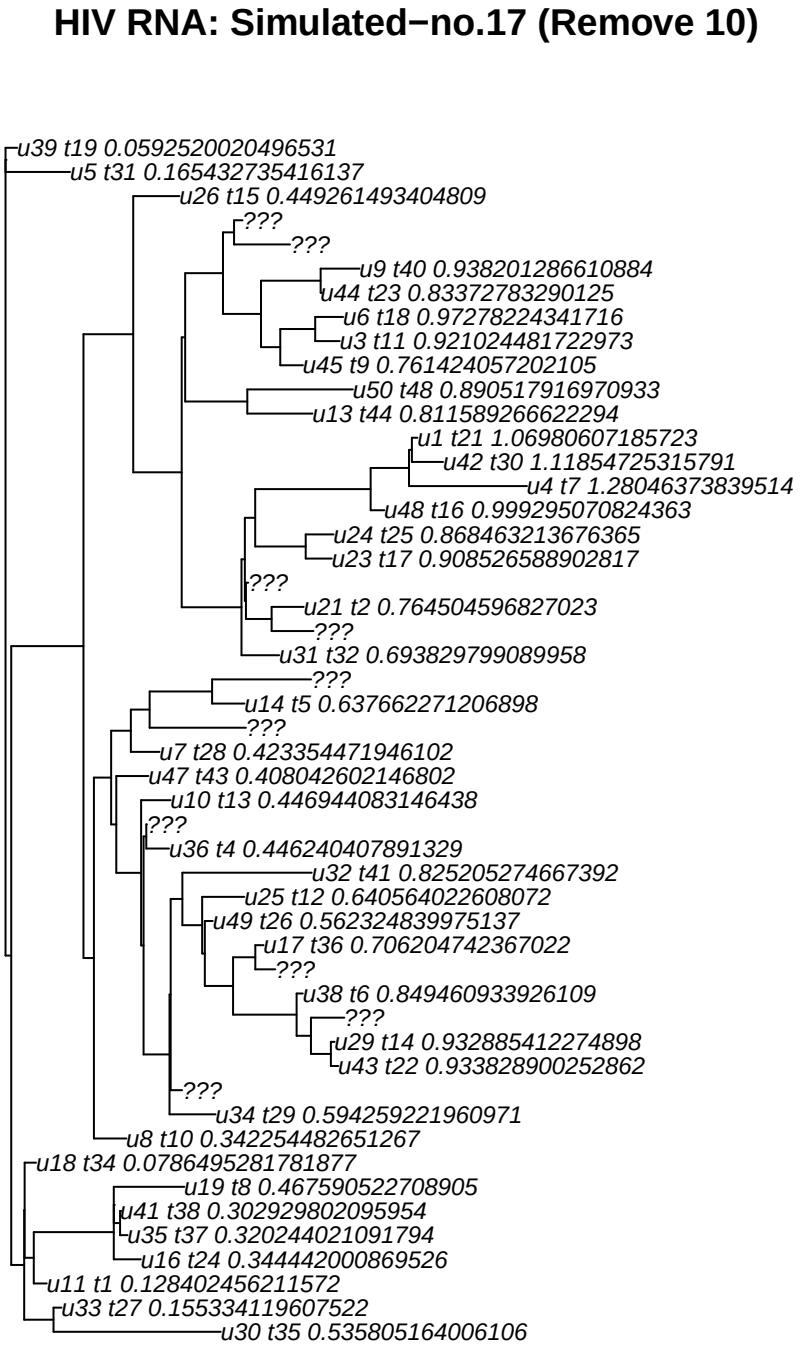

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
0.1104
0.07494
Expected Substitutions
(Mean square error: 0.00237169)

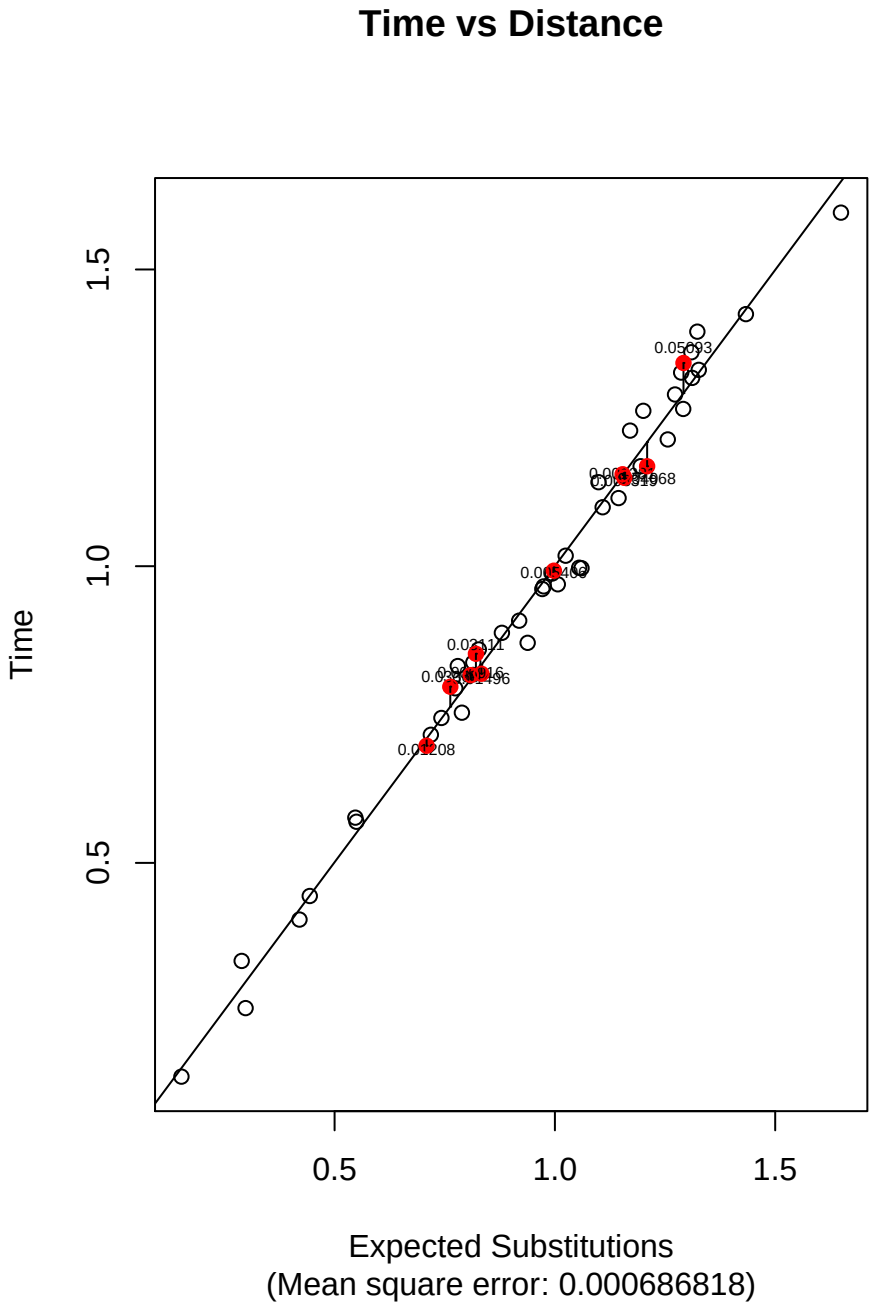

HIV RNA: Simulated−no.15 (Remove 10)
u23 t16 0.0788739865474723
u29 t32 0.051310576548648
u33 t5 0.292613969651293
u49 t26 2.41133554678425
u43 t19 2.20961948965577
u16 t47 2.01587428940572
???
???
u46 t15 2.36166835268155
u2 t46 2.22228334440597
u10 t36 2.24565328299226
u6 t6 1.7334905071976
u24 t25 2.44941048392984
???
u30 t11 1.86632574213239
u3 t4 1.93079098973085
u47 t40 1.59938620114287
???
???
u27 t7 1.96696594627905
u9 t2 2.00995867833777
u34 t13 2.33911015263849
u7 t45 2.3885883947242
???
u48 t35 2.23335358270801
u13 t9 2.39680358339992
u40 t41 2.21023724262231
u4 t49 2.31628745714269
???
u14 t29 2.4840111855165
u19 t14 2.26045255500695
???
u21 t24 2.34635683285302
u31 t18 1.86644866406353
u11 t17 1.54751155777381
u15 t38 1.49343255990972
u45 t42 1.6212015294359
u41 t23 1.52157441749735
u28 t21 1.46924576844631
???
u42 t50 0.704439547501679
u26 t12 0.711789531295177
u44 t22 1.04704971433332
u36 t48 1.06309806841688
???
u25 t33 0.720358655411404
u39 t44 0.670301452877766
u18 t1 0.535838663484133
u38 t31 0.0802545017953044
u35 t3 0.115161854615175

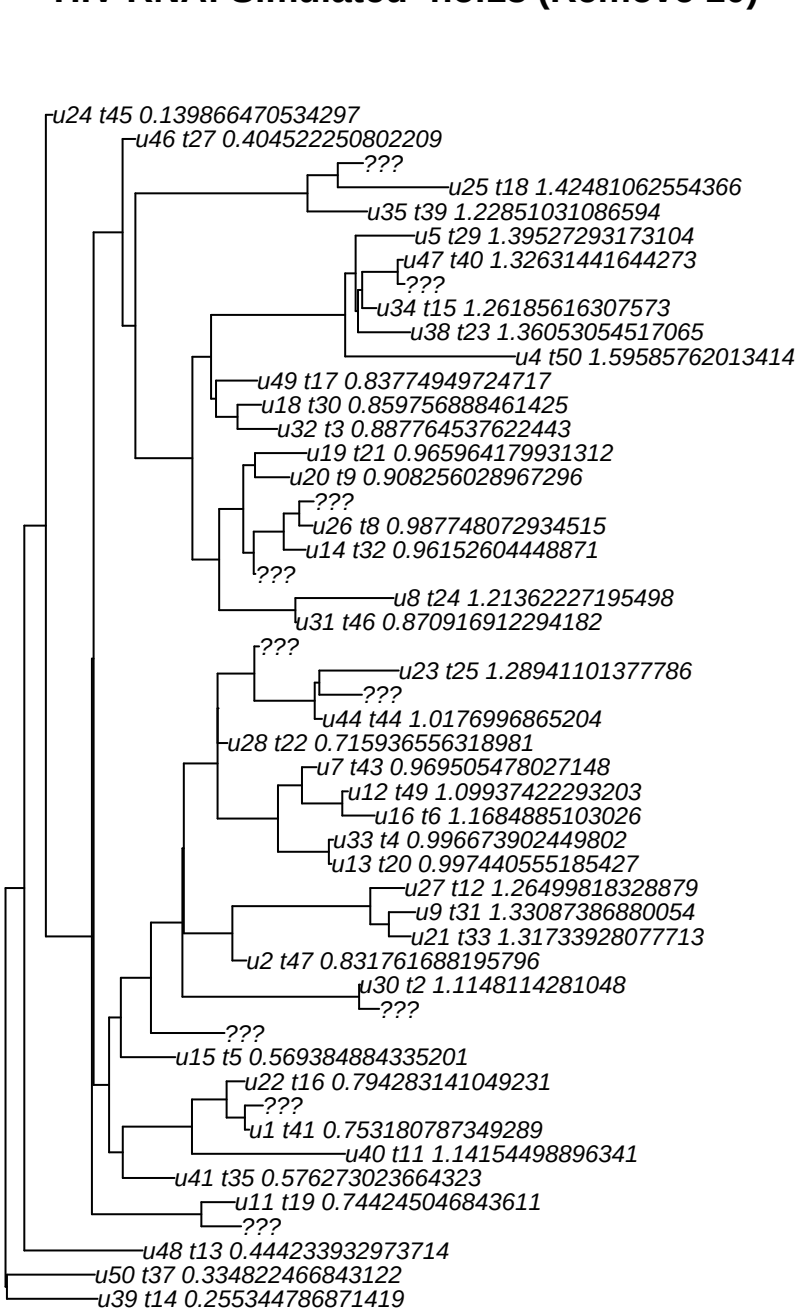

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0017454)
0.0
0.5
1.0
1.5
2.0
2.5
0.0499
0.0757

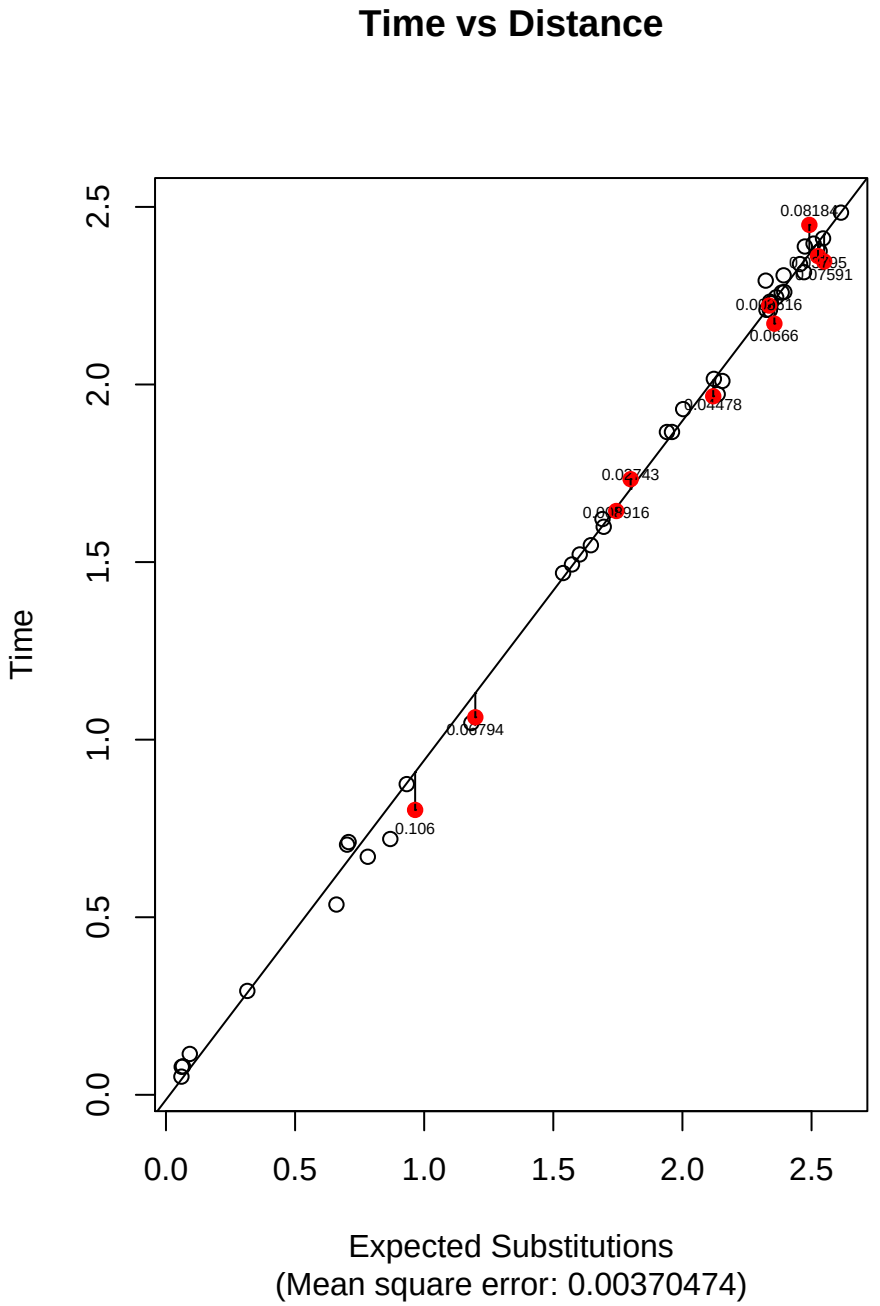

HIV RNA: Simulated−no.16 (Remove 10)
u16 t32 0.051310576548648
u13 t15 2.36166835268155
u5 t20 2.30748371901255
u42 t8 2.22882570405044
u19 t36 2.24565328299226
u4 t46 2.22228334440597
???
u32 t19 2.20961948965577
???
u15 t6 1.7334905071976
u29 t25 2.44941048392984
u36 t43 2.29251372390403
u34 t4 1.93079098973085
u40 t11 1.86632574213239
???
u28 t42 1.6212015294359
u2 t23 1.52157441749735
u12 t17 1.54751155777381
???
u20 t27 2.25896552690437
u37 t45 2.3885883947242
???
???
u38 t28 1.97275261659331
u25 t7 1.96696594627905
u43 t18 1.86644866406353
u18 t49 2.31628745714269
u31 t29 2.4840111855165
u23 t37 2.37542783114921
u48 t41 2.21023724262231
u14 t35 2.23335358270801
u1 t9 2.39680358339992
u33 t39 2.17145376864473
???
u45 t14 2.26045255500695
u27 t10 1.64386075619842
u17 t21 1.46924576844631
u24 t34 0.874970725955655
u50 t12 0.711789531295177
u39 t50 0.704439547501679
u11 t44 0.670301452877766
???
u47 t33 0.720358655411404
u22 t22 1.04704971433332
u26 t48 1.06309806841688
u49 t1 0.535838663484133
u46 t5 0.292613969651293
u41 t31 0.080254501795304
???
???
???

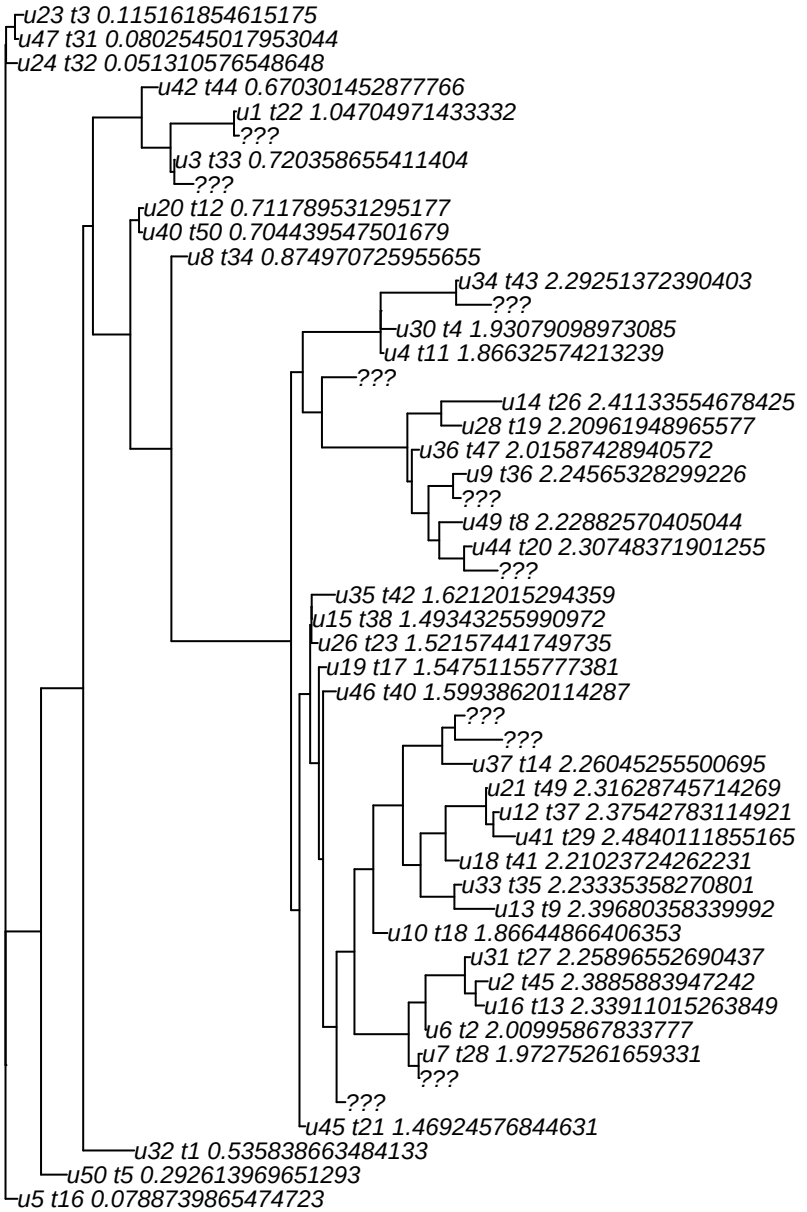

Time vs Distance
Time
0.2
0.4
0.6
0.8
1.0
1.2
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.05744
0.02746
0.02168
0.005755
Expected Substitutions
(Mean square error: 0.000697338)

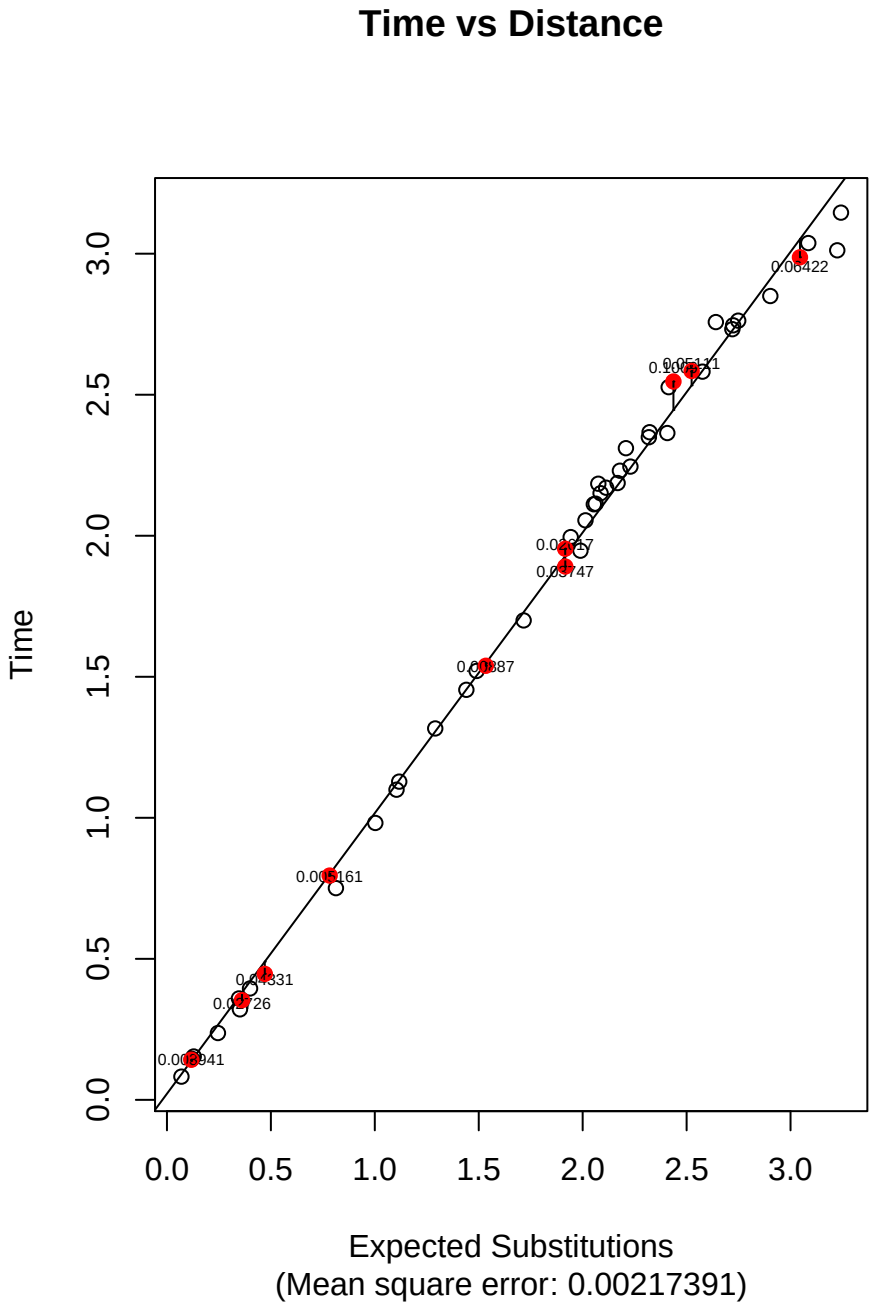

HIV RNA: Simulated−no.17 (Remove 10)
u39 t19 0.0592520020496531
u5 t31 0.165432735416137
u26 t15 0.449261493404809
???
???
u9 t40 0.938201286610884
u44 t23 0.83372783290125
u6 t18 0.97278224341716
u3 t11 0.921024481722973
u45 t9 0.761424057202105
u50 t48 0.890517916970933
u13 t44 0.811589266622294
u1 t21 1.06980607185723
u42 t30 1.11854725315791
u4 t7 1.28046373839514
u48 t16 0.999295070824363
u24 t25 0.868463213676365
u23 t17 0.908526588902817
???
u21 t2 0.764504596827023
???
u31 t32 0.693829799089958
???
u14 t5 0.637662271206898
???
u7 t28 0.423354471946102
u47 t43 0.408042602146802
u10 t13 0.446944083146438
???
u36 t4 0.446240407891329
u32 t41 0.825205274667392
u25 t12 0.640564022608072
u49 t26 0.562324839975137
u17 t36 0.706204742367022
???
u38 t6 0.849460933926109
???
u29 t14 0.932885412274898
u43 t22 0.933828900252862
???
u34 t29 0.594259221960971
u8 t10 0.342254482651267
u18 t34 0.0786495281781877
u19 t8 0.467590522708905
u41 t38 0.302929802095954
u35 t37 0.320244021091794
u16 t24 0.344442000869526
u11 t1 0.128402456211572
u33 t27 0.155334119607522
u30 t35 0.535805164006106

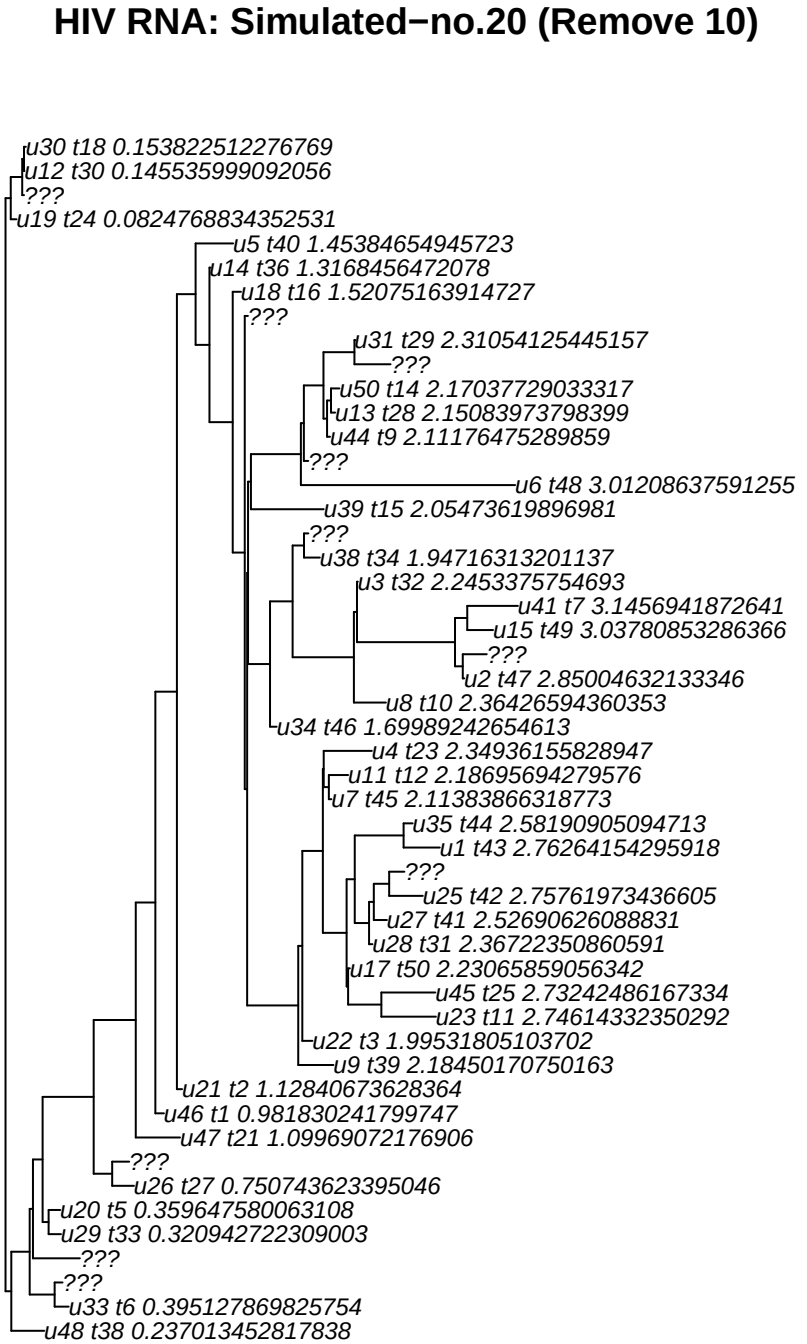

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
0.05093
Expected Substitutions
(Mean square error: 0.000686818)

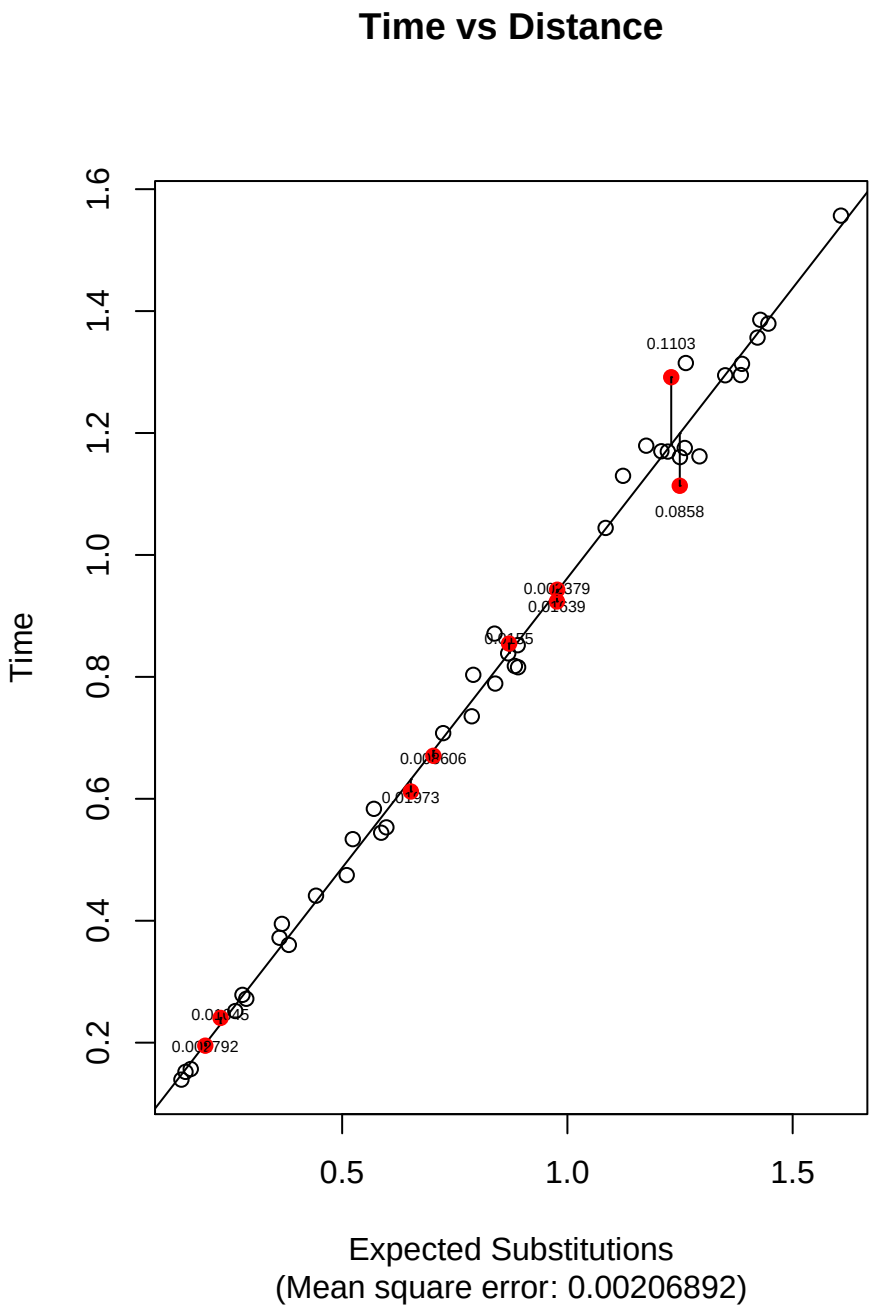

HIV RNA: Simulated−no.18 (Remove 10)
u24 t45 0.139866470534297
u46 t27 0.404522250802209
???
u25 t18 1.42481062554366
u35 t39 1.22851031086594
u5 t29 1.39527293173104
u47 t40 1.32631441644273
???
u34 t15 1.26185616307573
u38 t23 1.36053054517065
u4 t50 1.59585762013414
u49 t17 0.83774949724717
u18 t30 0.859756888461425
u32 t3 0.887764537622443
u19 t21 0.965964179931312
u20 t9 0.908256028967296
???
u26 t8 0.987748072934515
u14 t32 0.96152604448871
???
u8 t24 1.21362227195498
u31 t46 0.870916912294182
???
u23 t25 1.28941101377786
???
u44 t44 1.0176996865204
u28 t22 0.715936556318981
u7 t43 0.969505478027148
u12 t49 1.09937422293203
u16 t6 1.1684885103026
u33 t4 0.996673902449802
u13 t20 0.997440555185427
u27 t12 1.26499818328879
u9 t31 1.33087386880054
u21 t33 1.31733928077713
u2 t47 0.831761688195796
u30 t2 1.1148114281048
???
???
u15 t5 0.569384884335201
u22 t16 0.794283141049231
???
u1 t41 0.753180787349289
u40 t11 1.14154498896341
u41 t35 0.576273023664323
u11 t19 0.744245046843611
???
u48 t13 0.444233932973714
u50 t37 0.334822466843122
u39 t14 0.255344786871419

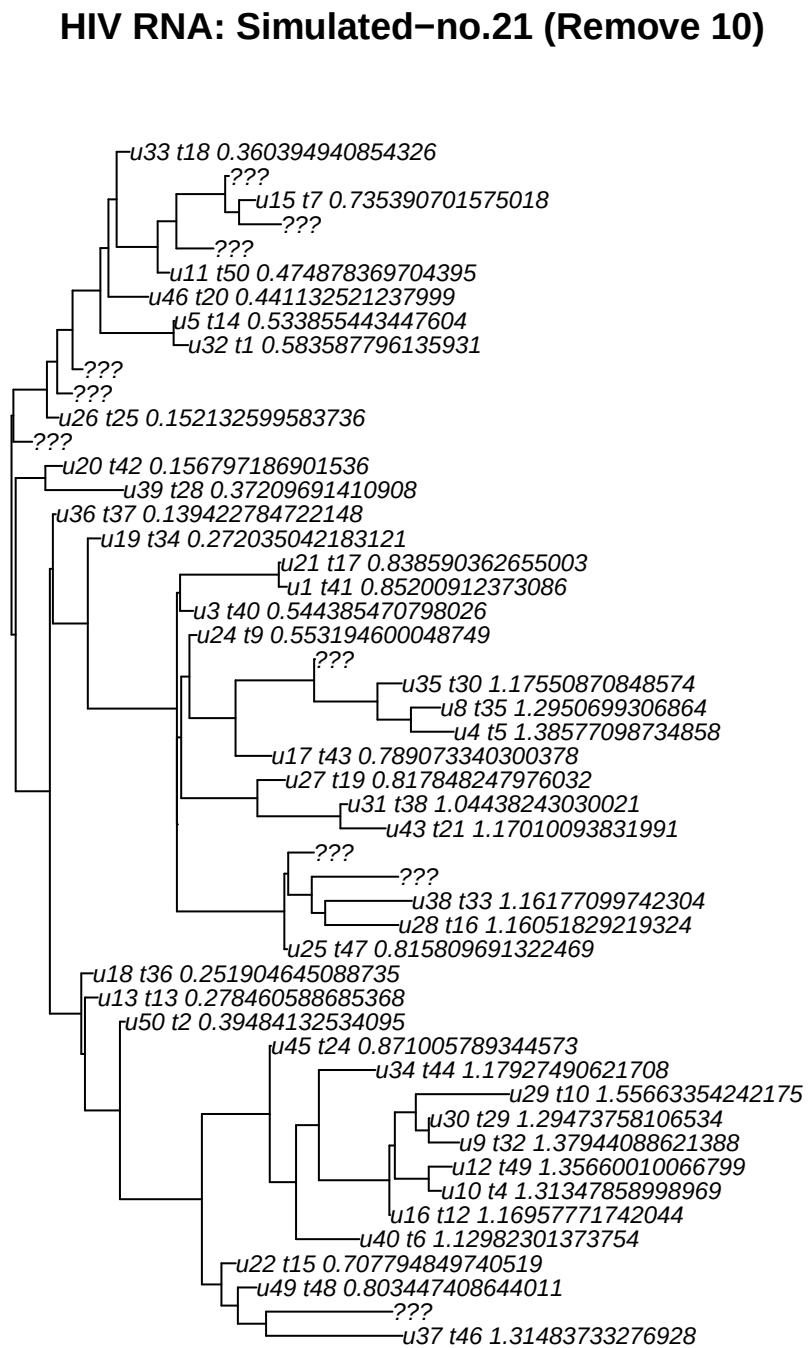

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00370474)
0.0
0.5
1.0
1.5
2.0
2.5
0.08184
0.07591
0.0666
0.04478
0.06794
0.106

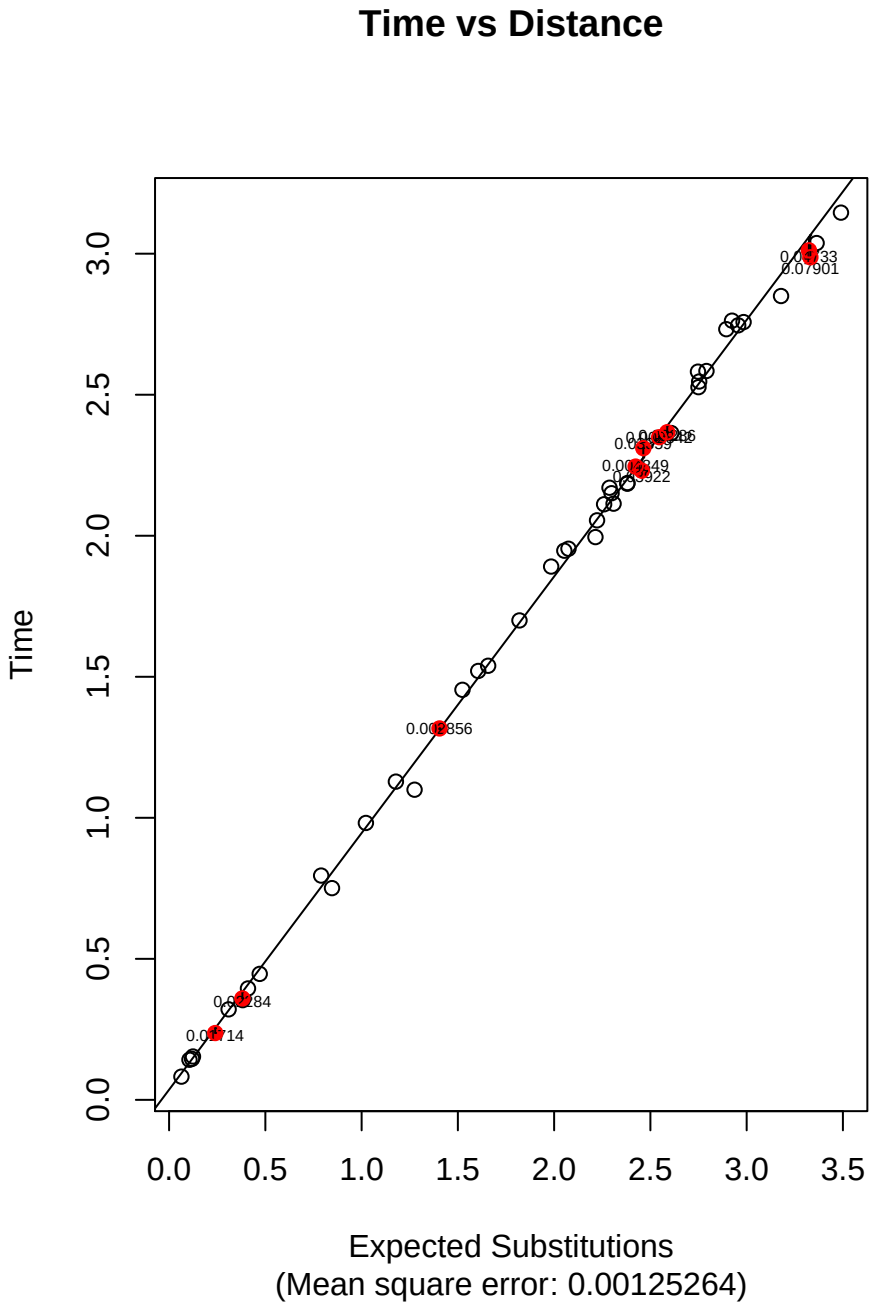

HIV RNA: Simulated−no.19 (Remove 10)
u23 t3 0.115161854615175
u47 t31 0.0802545017953044
u24 t32 0.051310576548648
u42 t44 0.670301452877766
u1 t22 1.04704971433332
???
u3 t33 0.720358655411404
???
u20 t12 0.711789531295177
u40 t50 0.704439547501679
u8 t34 0.874970725955655
u34 t43 2.29251372390403
???
u30 t4 1.93079098973085
u4 t11 1.86632574213239
???
u14 t26 2.41133554678425
u28 t19 2.20961948965577
u36 t47 2.01587428940572
u9 t36 2.24565328299226
???
u49 t8 2.22882570405044
u44 t20 2.30748371901255
???
u35 t42 1.6212015294359
u15 t38 1.49343255990972
u26 t23 1.52157441749735
u19 t17 1.54751155777381
u46 t40 1.59938620114287
???
???
u37 t14 2.26045255500695
u21 t49 2.31628745714269
u12 t37 2.37542783114921
u41 t29 2.4840111855165
u18 t41 2.21023724262231
u33 t35 2.23335358270801
u13 t9 2.39680358339992
u10 t18 1.86644866406353
u31 t27 2.25896552690437
u2 t45 2.3885883947242
u16 t13 2.33911015263849
u6 t2 2.00995867833777
u7 t28 1.97275261659331
???
???
u45 t21 1.46924576844631
u32 t1 0.535838663484133
u50 t5 0.292613969651293
u5 t16 0.0788739865474723

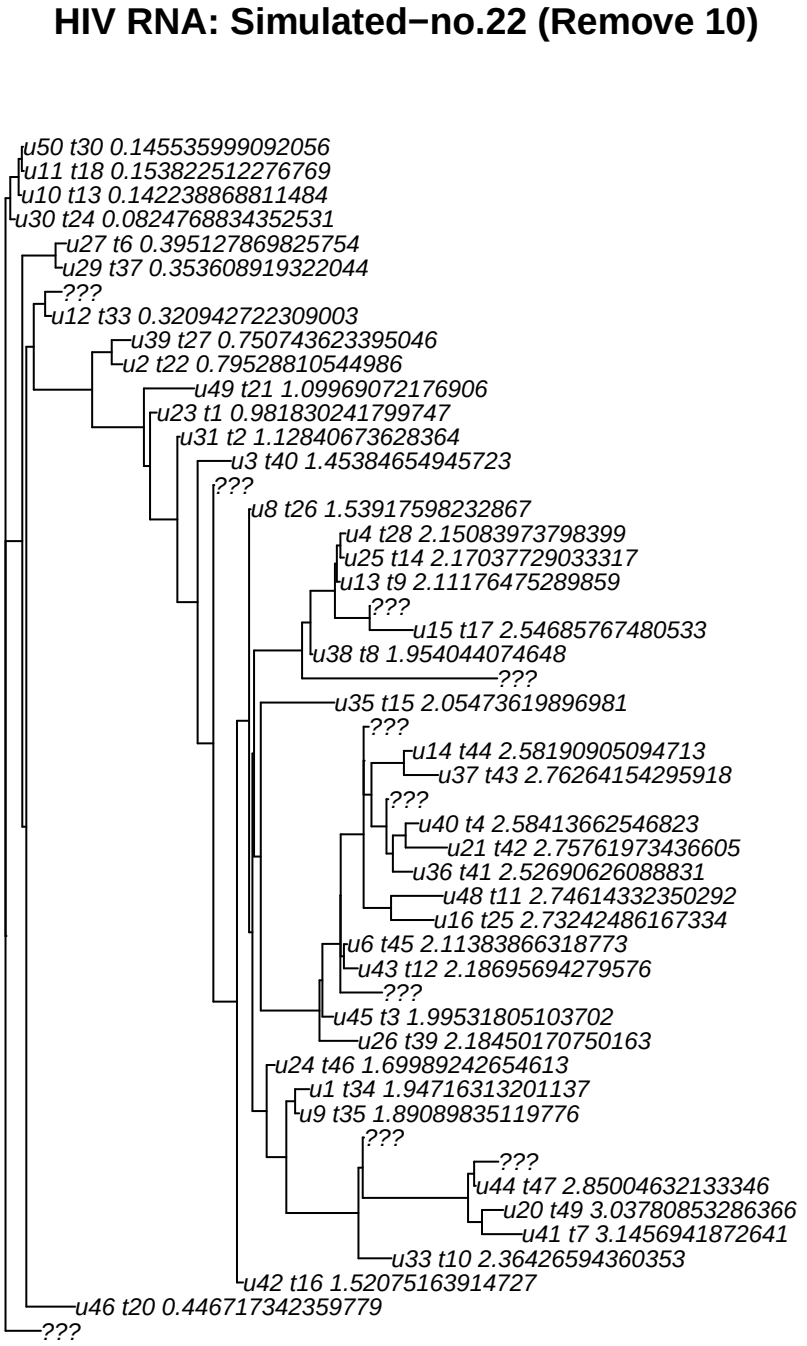

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00217391)
0.0
0.5
1.0
1.5
2.0
2.5
3.0

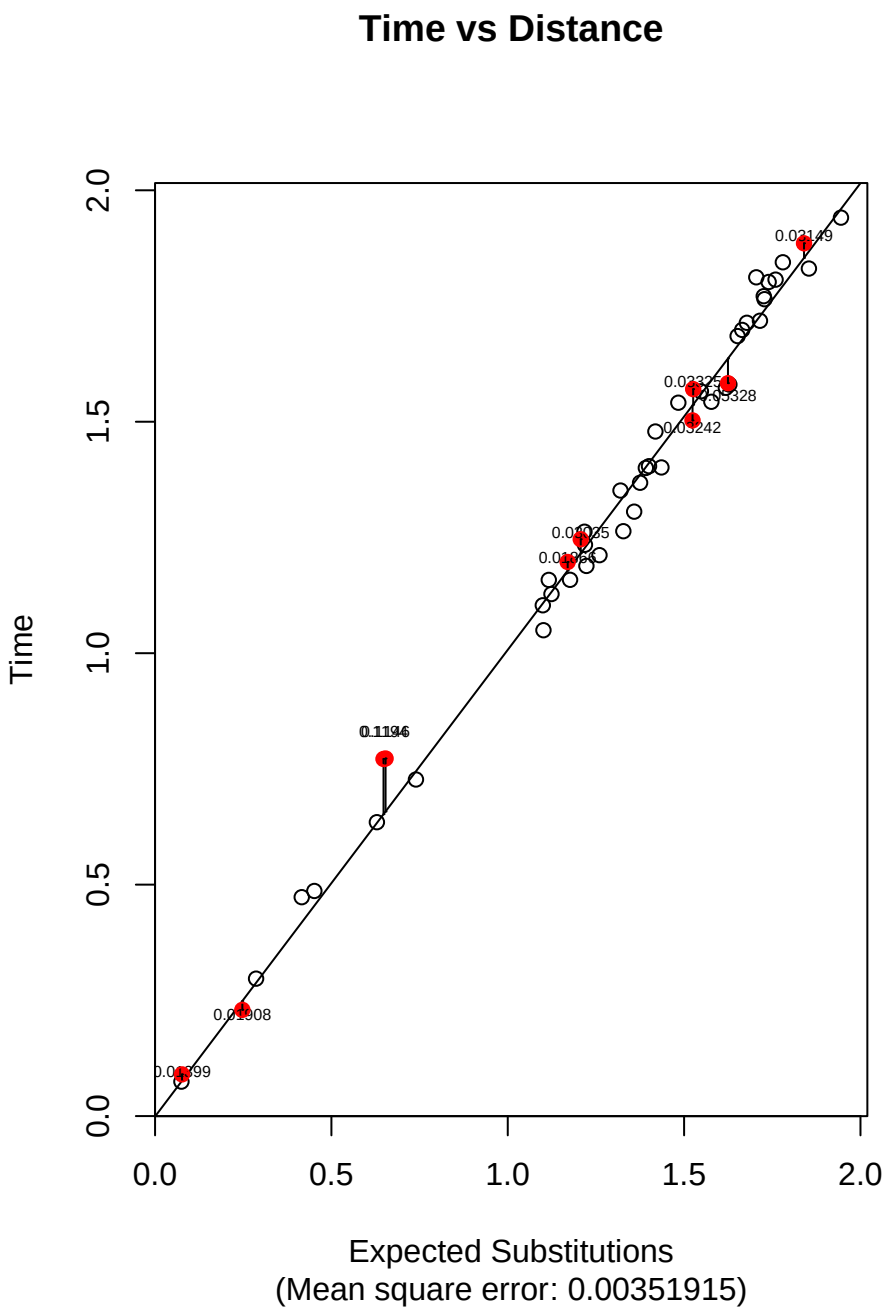

HIV RNA: Simulated−no.20 (Remove 10)
u30 t18 0.153822512276769
u12 t30 0.145535999092056
???
u19 t24 0.0824768834352531
u5 t40 1.45384654945723
u14 t36 1.3168456472078
u18 t16 1.52075163914727
???
u31 t29 2.31054125445157
???
u50 t14 2.17037729033317
u13 t28 2.15083973798399
u44 t9 2.11176475289859
???
u6 t48 3.01208637591255
u39 t15 2.05473619896981
???
u38 t34 1.94716313201137
u3 t32 2.2453375754693
u41 t7 3.1456941872641
u15 t49 3.03780853286366
???
u2 t47 2.85004632133346
u8 t10 2.36426594360353
u34 t46 1.69989242654613
u4 t23 2.34936155828947
u11 t12 2.18695694279576
u7 t45 2.11383866318773
u35 t44 2.58190905094713
u1 t43 2.76264154295918
???
u25 t42 2.75761973436605
u27 t41 2.52690626088831
u28 t31 2.36722350860591
u17 t50 2.23065859056342
u45 t25 2.73242486167334
u23 t11 2.74614332350292
u22 t3 1.99531805103702
u9 t39 2.18450170750163
u21 t2 1.12840673628364
u46 t1 0.981830241799747
u47 t21 1.09969072176906
???
u26 t27 0.750743623395046
u20 t5 0.359647580063108
u29 t33 0.320942722309003
???
???
u33 t6 0.395127869825754
u48 t38 0.237013452817838

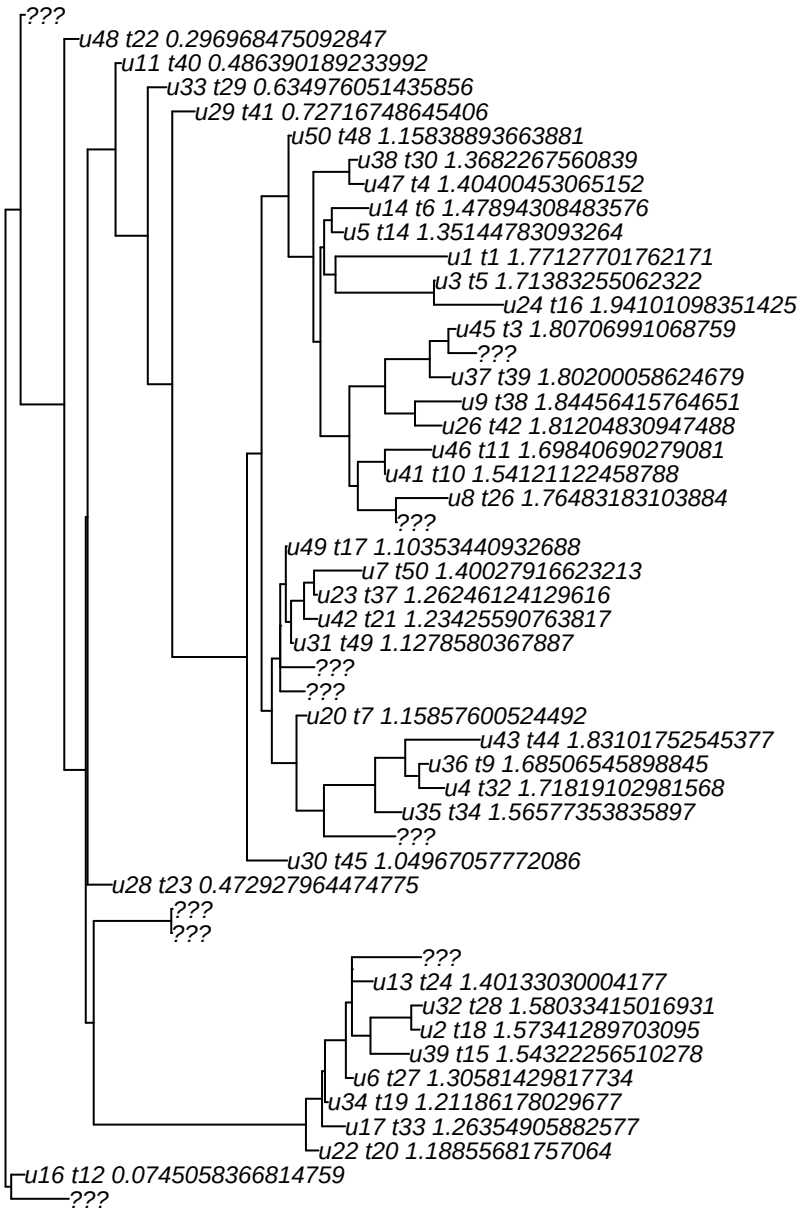

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00206892)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.5
1.0
1.5
0.1103
0.0858
0.002379
0.01639
0.0155
0.008606
0.01973
0.01045
0.002792

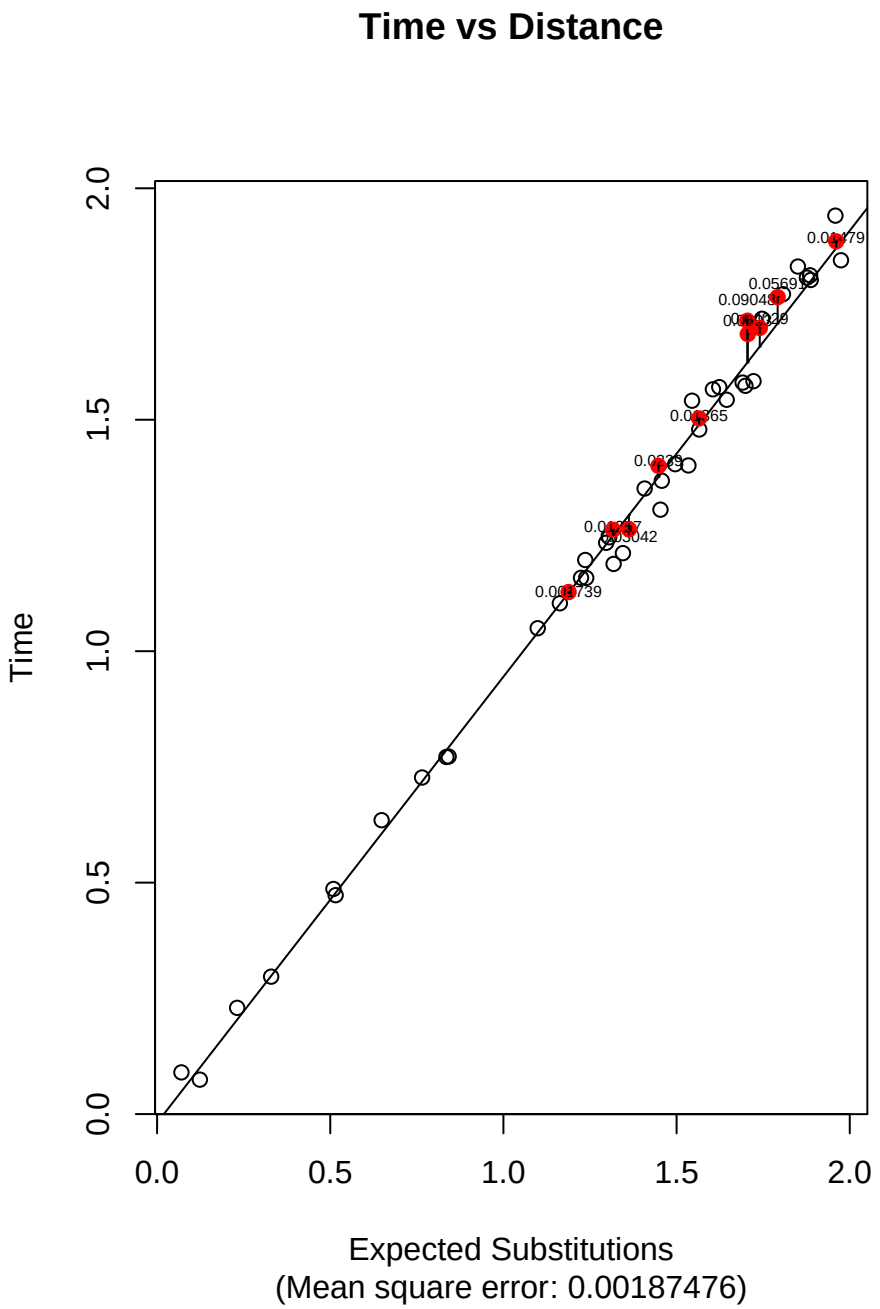

HIV RNA: Simulated−no.21 (Remove 10)
u33 t18 0.360394940854326
???
u15 t7 0.735390701575018
???
???
u11 t50 0.474878369704395
u46 t20 0.441132521237999
u5 t14 0.533855443447604
u32 t1 0.583587796135931
???
???
u26 t25 0.152132599583736
???
u20 t42 0.156797186901536
u39 t28 0.37209691410908
u36 t37 0.139422784722148
u19 t34 0.272035042183121
u21 t17 0.838590362655003
u1 t41 0.85200912373086
u3 t40 0.544385470798026
u24 t9 0.553194600048749
???
u35 t30 1.17550870848574
u8 t35 1.2950699306864
u4 t5 1.38577098734858
u17 t43 0.789073340300378
u27 t19 0.817848247976032
u31 t38 1.04438243030021
u43 t21 1.17010093831991
???
???
u38 t33 1.16177099742304
u28 t16 1.16051829219324
u25 t47 0.815809691322469
u18 t36 0.251904645088735
u13 t13 0.278460588685368
u50 t2 0.39484132534095
u45 t24 0.871005789344573
u34 t44 1.17927490621708
u29 t10 1.55663354242175
u30 t29 1.29473758106534
u9 t32 1.37944088621388
u12 t49 1.35660010066799
u10 t4 1.31347858998969
u16 t12 1.16957771742044
u40 t6 1.12982301373754
u22 t15 0.707794849740519
u49 t48 0.803447408644011
???
u37 t46 1.31483733276928

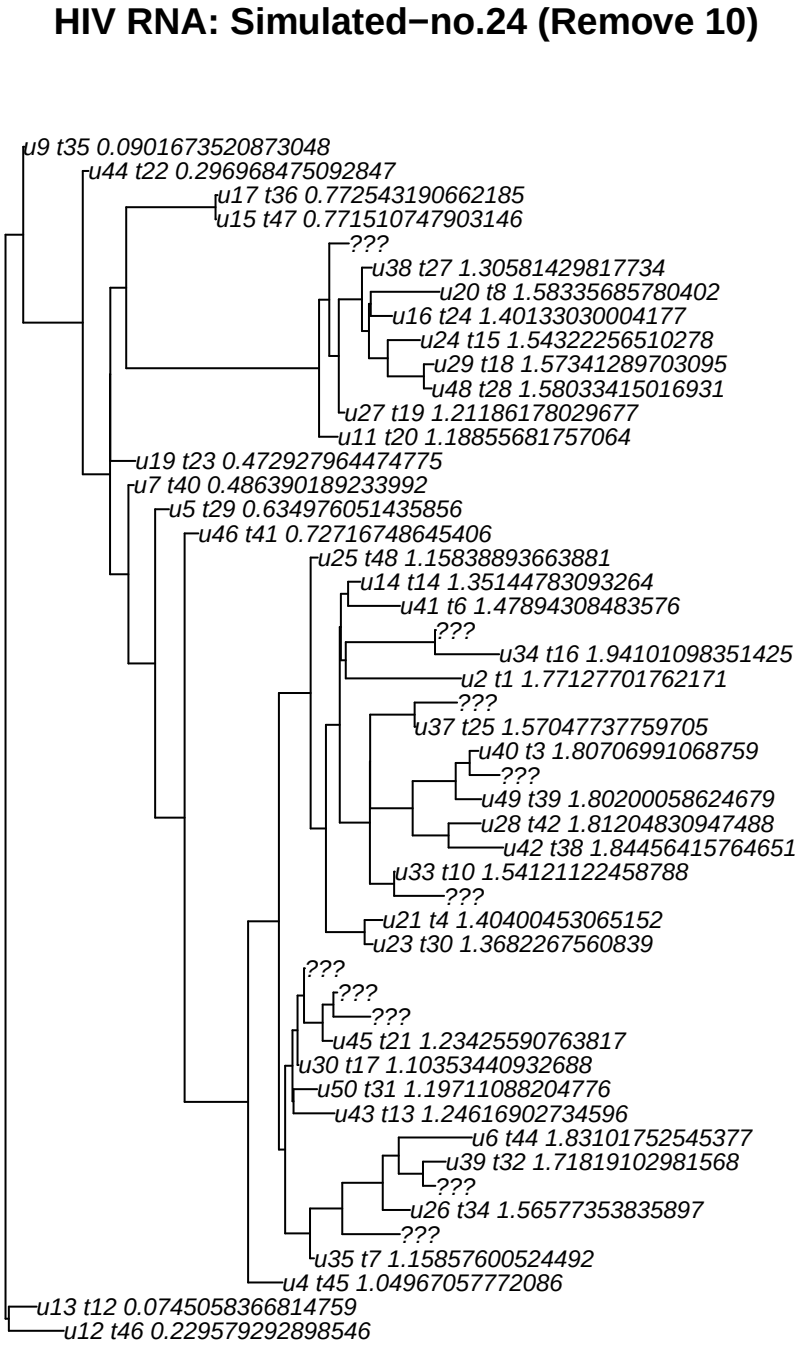

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
Expected Substitutions
(Mean square error: 0.00125264)

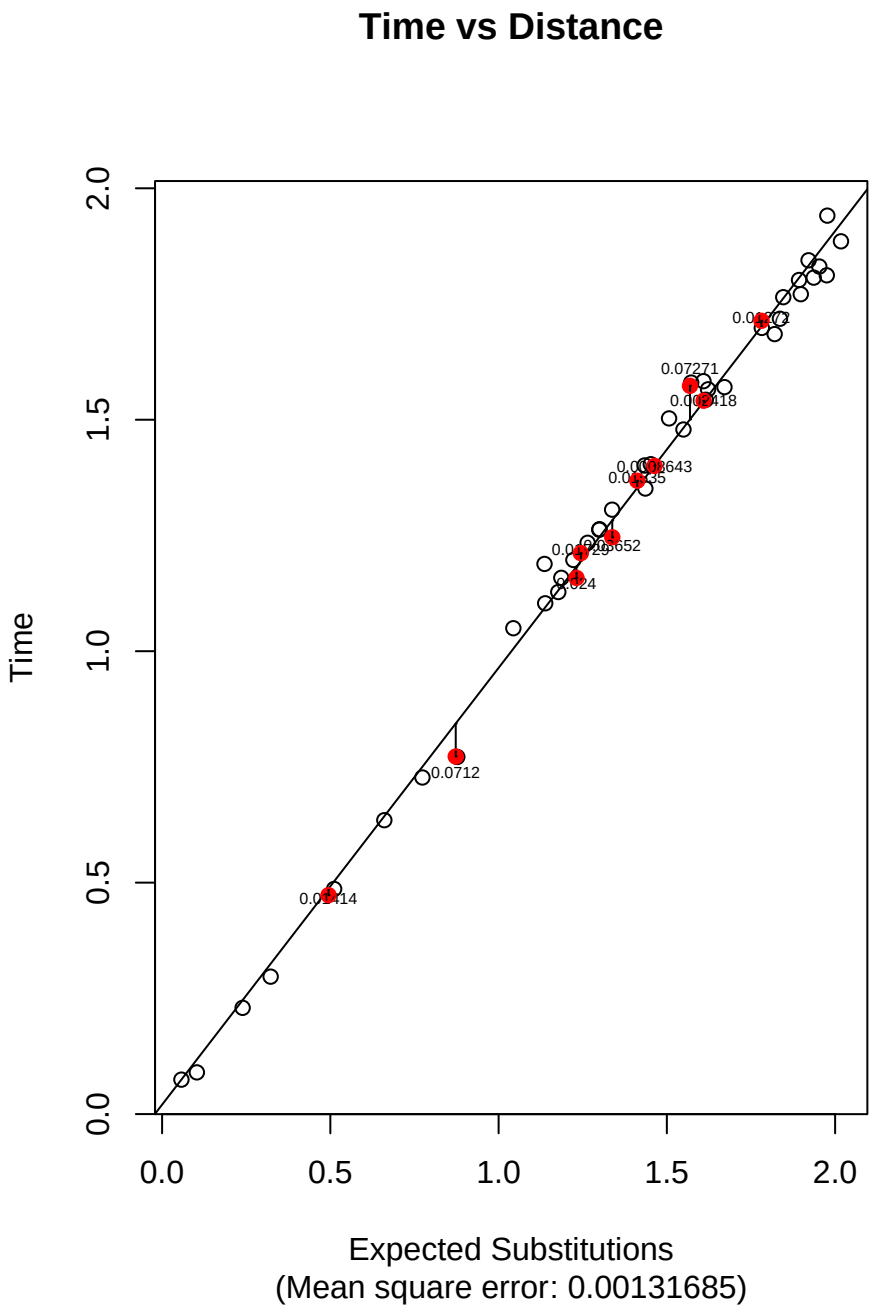

HIV RNA: Simulated−no.22 (Remove 10)
u50 t30 0.145535999092056
u11 t18 0.153822512276769
u10 t13 0.142238868811484
u30 t24 0.0824768834352531
u27 t6 0.395127869825754
u29 t37 0.353608919322044
???
u12 t33 0.320942722309003
u39 t27 0.750743623395046
u2 t22 0.79528810544986
u49 t21 1.09969072176906
u23 t1 0.981830241799747
u31 t2 1.12840673628364
u3 t40 1.45384654945723
???
u8 t26 1.53917598232867
u4 t28 2.15083973798399
u25 t14 2.17037729033317
u13 t9 2.11176475289859
???
u15 t17 2.54685767480533
u38 t8 1.954044074648
???
u35 t15 2.05473619896981
???
u14 t44 2.58190905094713
u37 t43 2.76264154295918
???
u40 t4 2.58413662546823
u21 t42 2.75761973436605
u36 t41 2.52690626088831
u48 t11 2.74614332350292
u16 t25 2.73242486167334
u6 t45 2.11383866318773
u43 t12 2.18695694279576
???
u45 t3 1.99531805103702
u26 t39 2.18450170750163
u24 t46 1.69989242654613
u1 t34 1.94716313201137
u9 t35 1.89089835119776
???
???
u44 t47 2.85004632133346
u20 t49 3.03780853286366
u41 t7 3.1456941872641
u33 t10 2.36426594360353
u42 t16 1.52075163914727
u46 t20 0.446717342359779
???

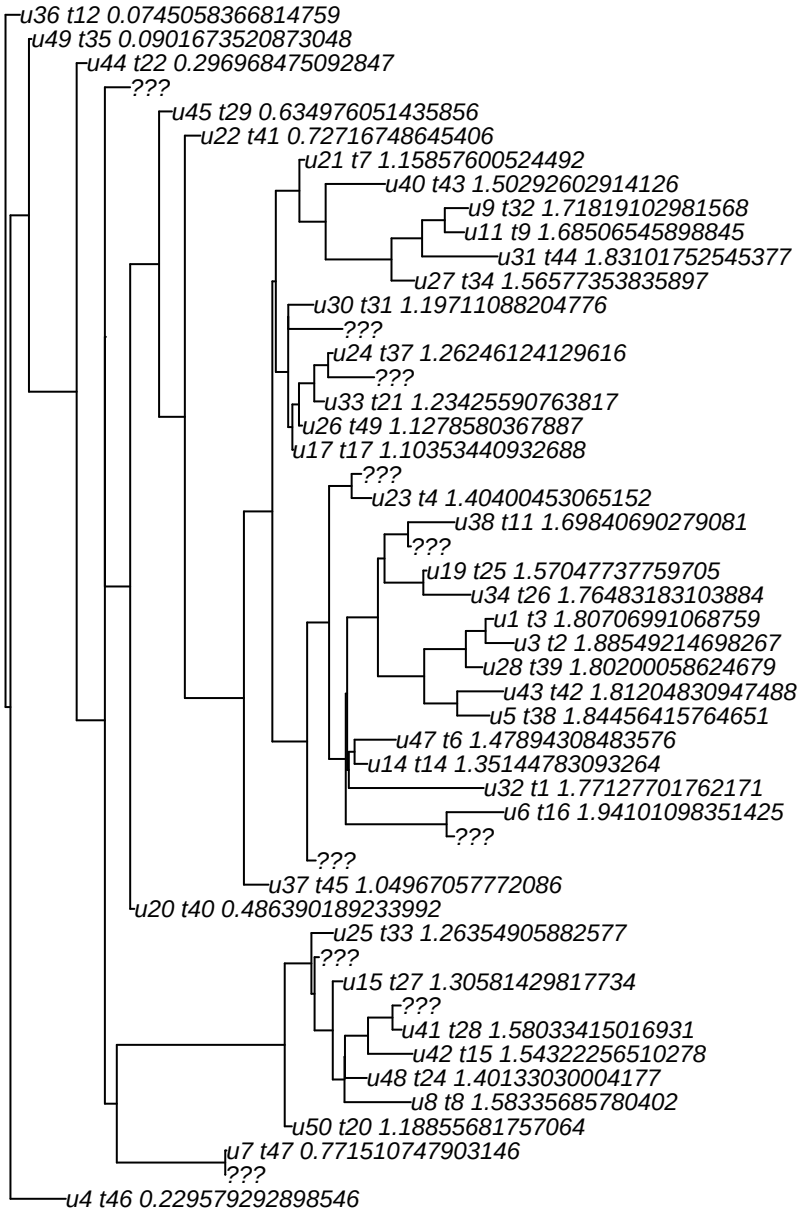

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00351915)
0.0
0.5
1.0
1.5
2.0
0.03149
0.03242

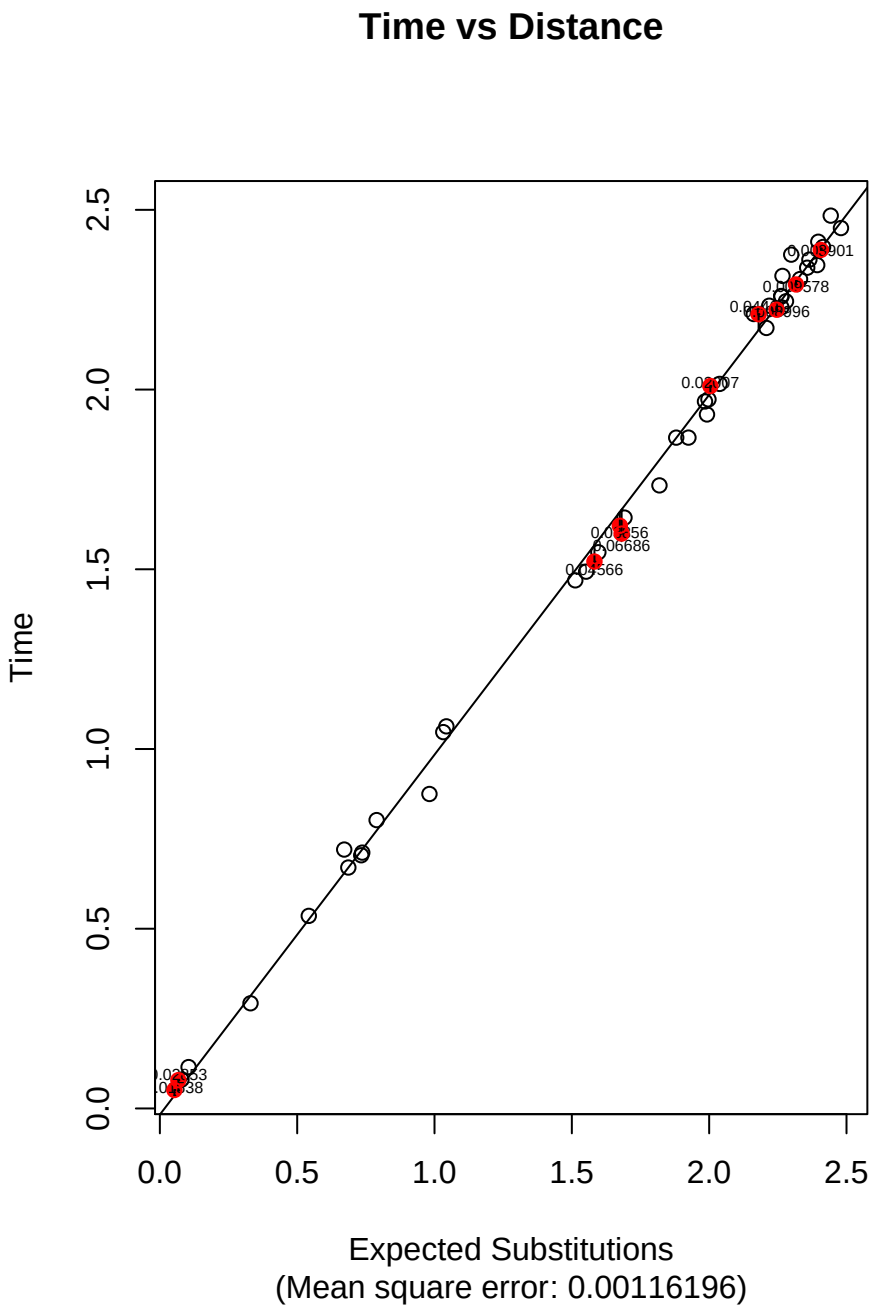

HIV RNA: Simulated−no.23 (Remove 10)
???
u48 t22 0.296968475092847
u11 t40 0.486390189233992
u33 t29 0.634976051435856
u29 t41 0.72716748645406
u50 t48 1.15838893663881
u38 t30 1.3682267560839
u47 t4 1.40400453065152
u14 t6 1.47894308483576
u5 t14 1.35144783093264
u1 t1 1.77127701762171
u3 t5 1.71383255062322
u24 t16 1.94101098351425
u45 t3 1.80706991068759
???
u37 t39 1.80200058624679
u9 t38 1.84456415764651
u26 t42 1.81204830947488
u46 t11 1.69840690279081
u41 t10 1.54121122458788
u8 t26 1.76483183103884
???
u49 t17 1.10353440932688
u7 t50 1.40027916623213
u23 t37 1.26246124129616
u42 t21 1.23425590763817
u31 t49 1.1278580367887
???
???
u20 t7 1.15857600524492
u43 t44 1.83101752545377
u36 t9 1.68506545898845
u4 t32 1.71819102981568
u35 t34 1.56577353835897
???
u30 t45 1.04967057772086
u28 t23 0.472927964474775
???
???
???
u13 t24 1.40133030004177
u32 t28 1.58033415016931
u2 t18 1.57341289703095
u39 t15 1.54322256510278
u6 t27 1.30581429817734
u34 t19 1.21186178029677
u17 t33 1.26354905882577
u22 t20 1.18855681757064
u16 t12 0.0745058366814759
???

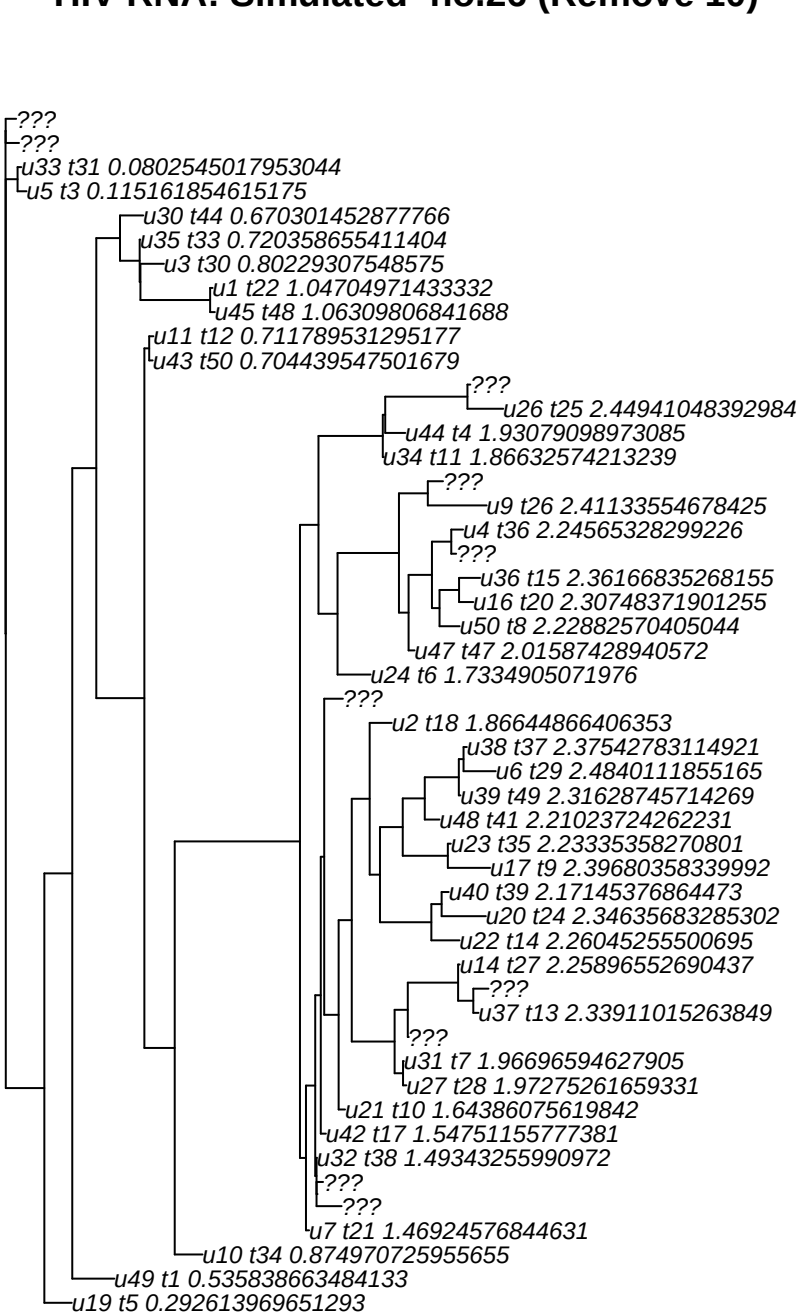

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
Expected Substitutions
(Mean square error: 0.00187476)

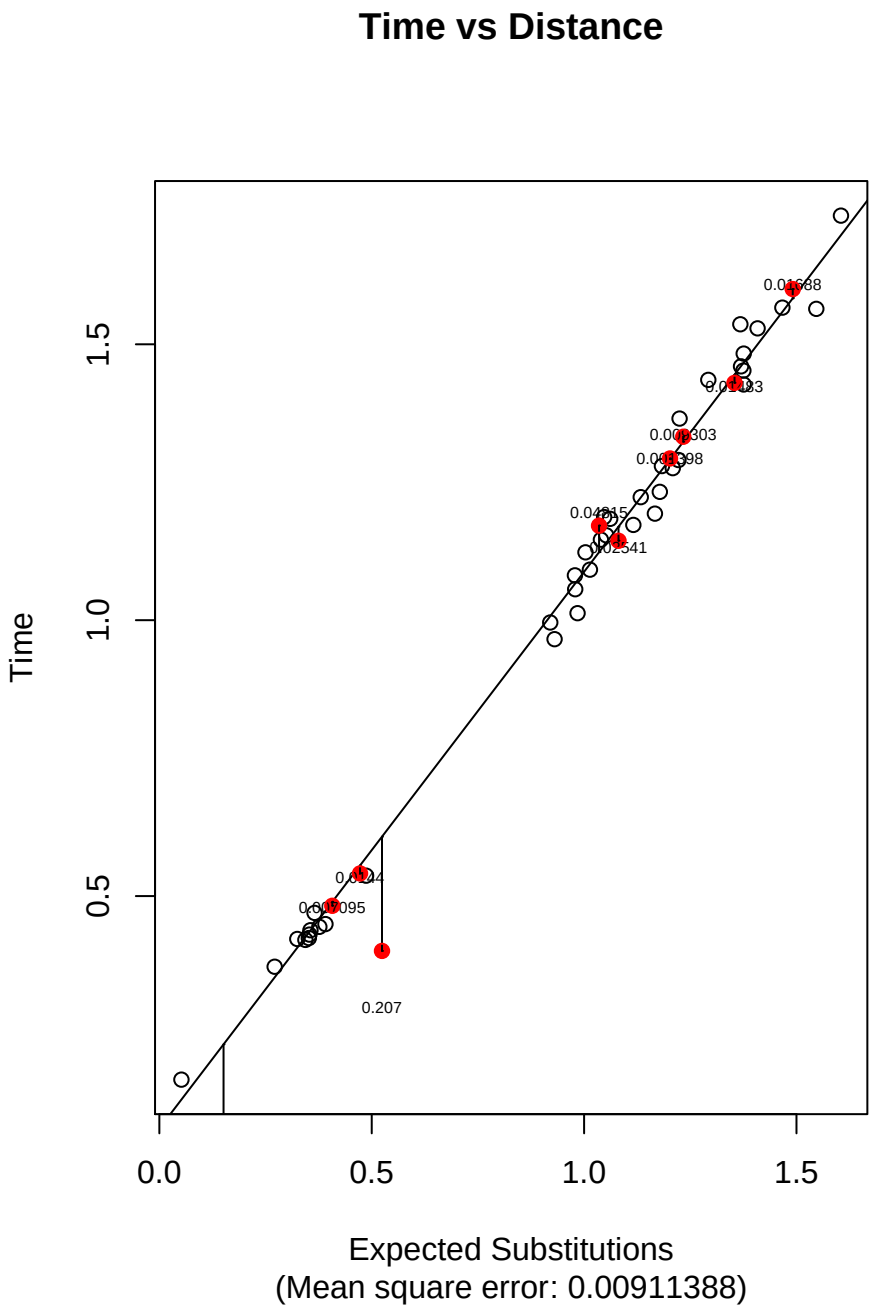

HIV RNA: Simulated−no.24 (Remove 10)
u9 t35 0.0901673520873048
u44 t22 0.296968475092847
u17 t36 0.772543190662185
u15 t47 0.771510747903146
???
u38 t27 1.30581429817734
u20 t8 1.58335685780402
u16 t24 1.40133030004177
u24 t15 1.54322256510278
u29 t18 1.57341289703095
u48 t28 1.58033415016931
u27 t19 1.21186178029677
u11 t20 1.18855681757064
u19 t23 0.472927964474775
u7 t40 0.486390189233992
u5 t29 0.634976051435856
u46 t41 0.72716748645406
u25 t48 1.15838893663881
u14 t14 1.35144783093264
u41 t6 1.47894308483576
???
u34 t16 1.94101098351425
u2 t1 1.77127701762171
???
u37 t25 1.57047737759705
u40 t3 1.80706991068759
???
u49 t39 1.80200058624679
u28 t42 1.81204830947488
u42 t38 1.84456415764651
u33 t10 1.54121122458788
???
u21 t4 1.40400453065152
u23 t30 1.3682267560839
???
???
???
u45 t21 1.23425590763817
u30 t17 1.10353440932688
u50 t31 1.19711088204776
u43 t13 1.24616902734596
u6 t44 1.83101752545377
u39 t32 1.71819102981568
???
u26 t34 1.56577353835897
???
u35 t7 1.15857600524492
u4 t45 1.04967057772086
u13 t12 0.0745058366814759
u12 t46 0.229579292898546

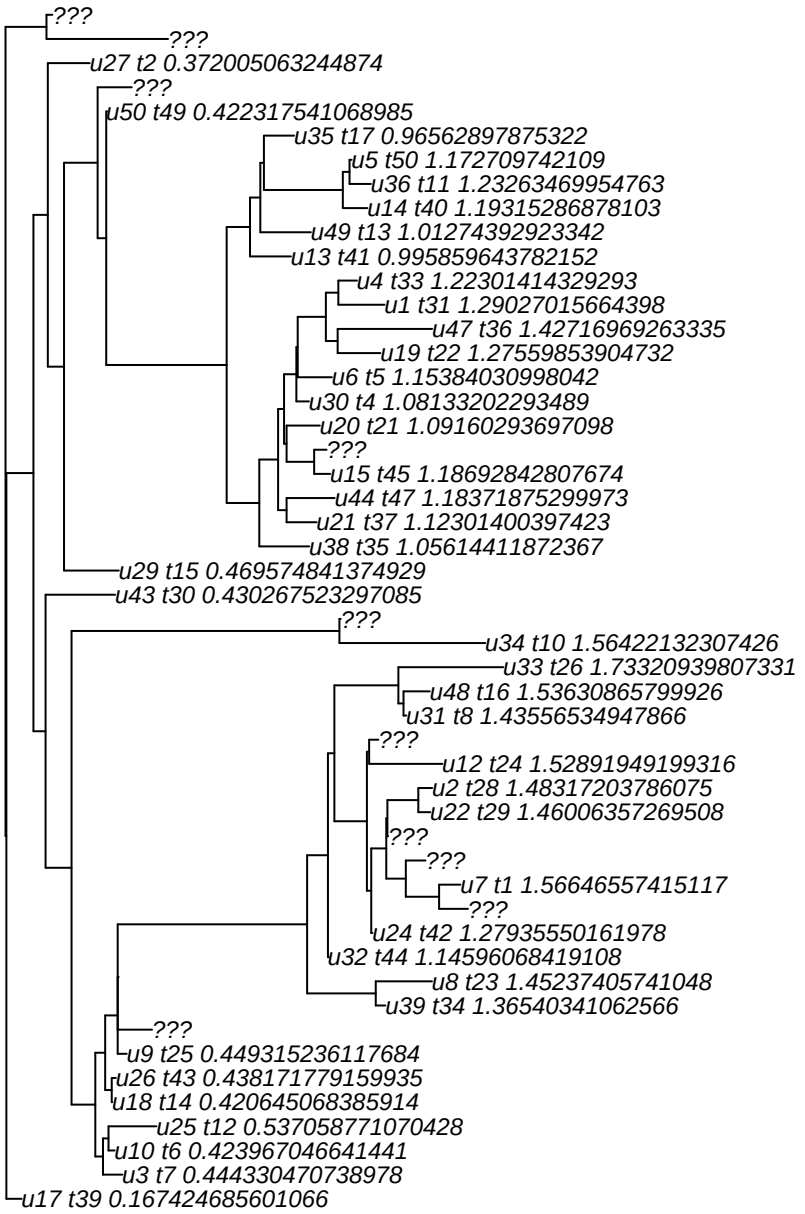

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00131685)
0.0
0.5
1.0
1.5
2.0
0.07271
0.0712
0.0414

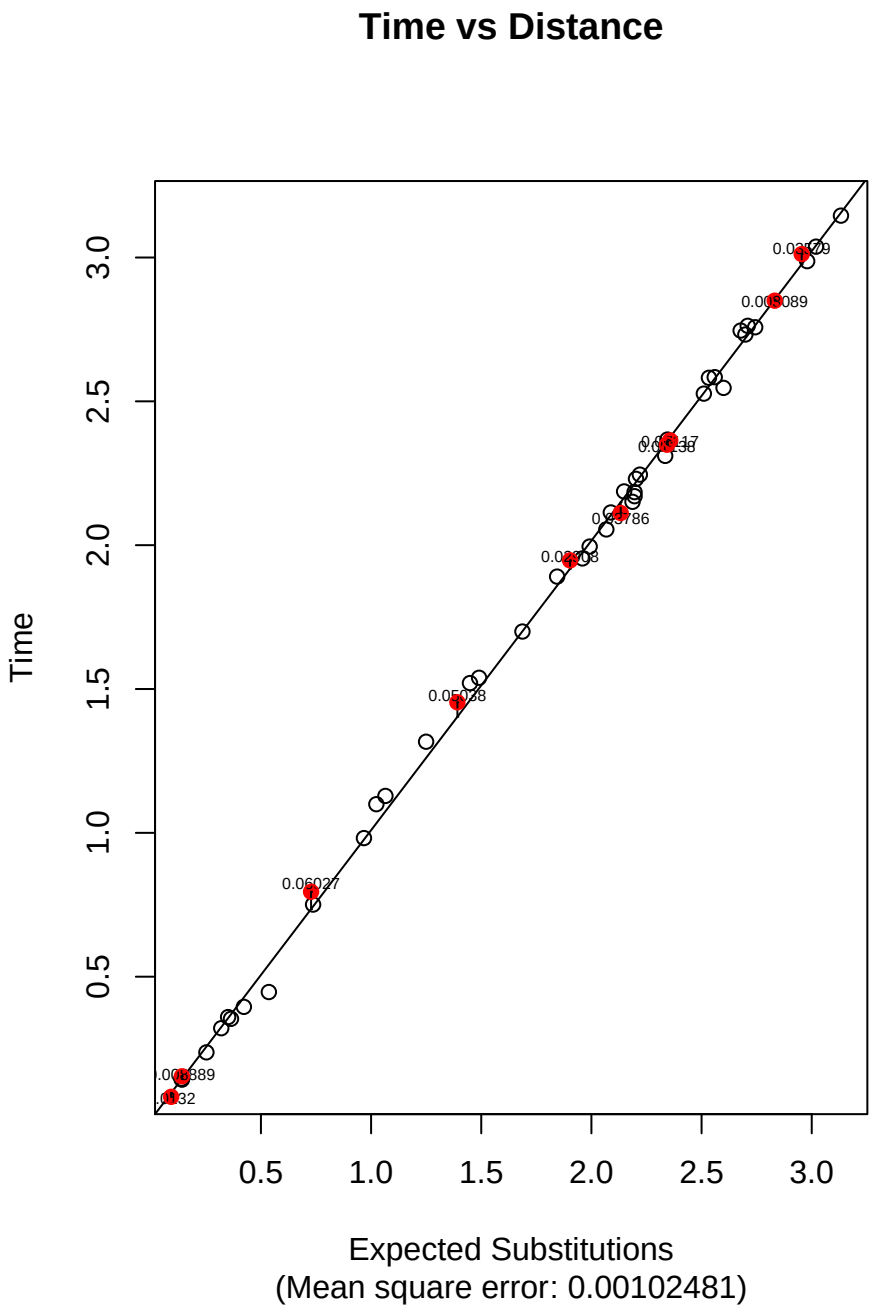

HIV RNA: Simulated−no.25 (Remove 10)
u36 t12 0.0745058366814759
u49 t35 0.0901673520873048
u44 t22 0.296968475092847
???
u45 t29 0.634976051435856
u22 t41 0.72716748645406
u21 t7 1.15857600524492
u40 t43 1.50292602914126
u9 t32 1.71819102981568
u11 t9 1.68506545898845
u31 t44 1.83101752545377
u27 t34 1.56577353835897
u30 t31 1.19711088204776
???
u24 t37 1.26246124129616
???
u33 t21 1.23425590763817
u26 t49 1.1278580367887
u17 t17 1.10353440932688
???
u23 t4 1.40400453065152
u38 t11 1.69840690279081
???
u19 t25 1.57047737759705
u34 t26 1.76483183103884
u1 t3 1.80706991068759
u3 t2 1.88549214698267
u28 t39 1.80200058624679
u43 t42 1.81204830947488
u5 t38 1.84456415764651
u47 t6 1.47894308483576
u14 t14 1.35144783093264
u32 t1 1.77127701762171
u6 t16 1.94101098351425
???
???
u37 t45 1.04967057772086
u20 t40 0.486390189233992
u25 t33 1.26354905882577
???
u15 t27 1.30581429817734
???
u41 t28 1.58033415016931
u42 t15 1.54322256510278
u48 t24 1.40133030004177
u8 t8 1.58335685780402
u50 t20 1.18855681757064
u7 t47 0.771510747903146
???
u4 t46 0.229579292898546

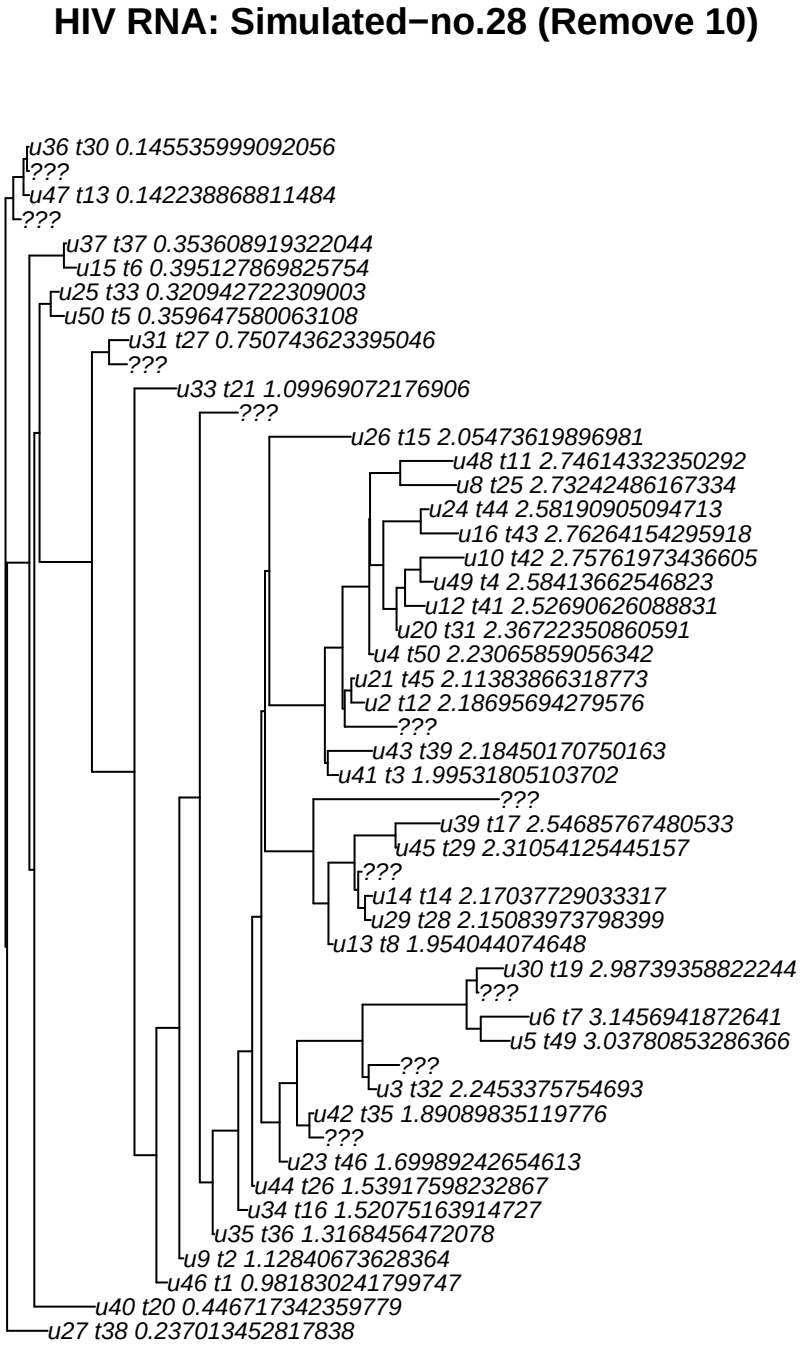

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
Expected Substitutions
(Mean square error: 0.00116196)

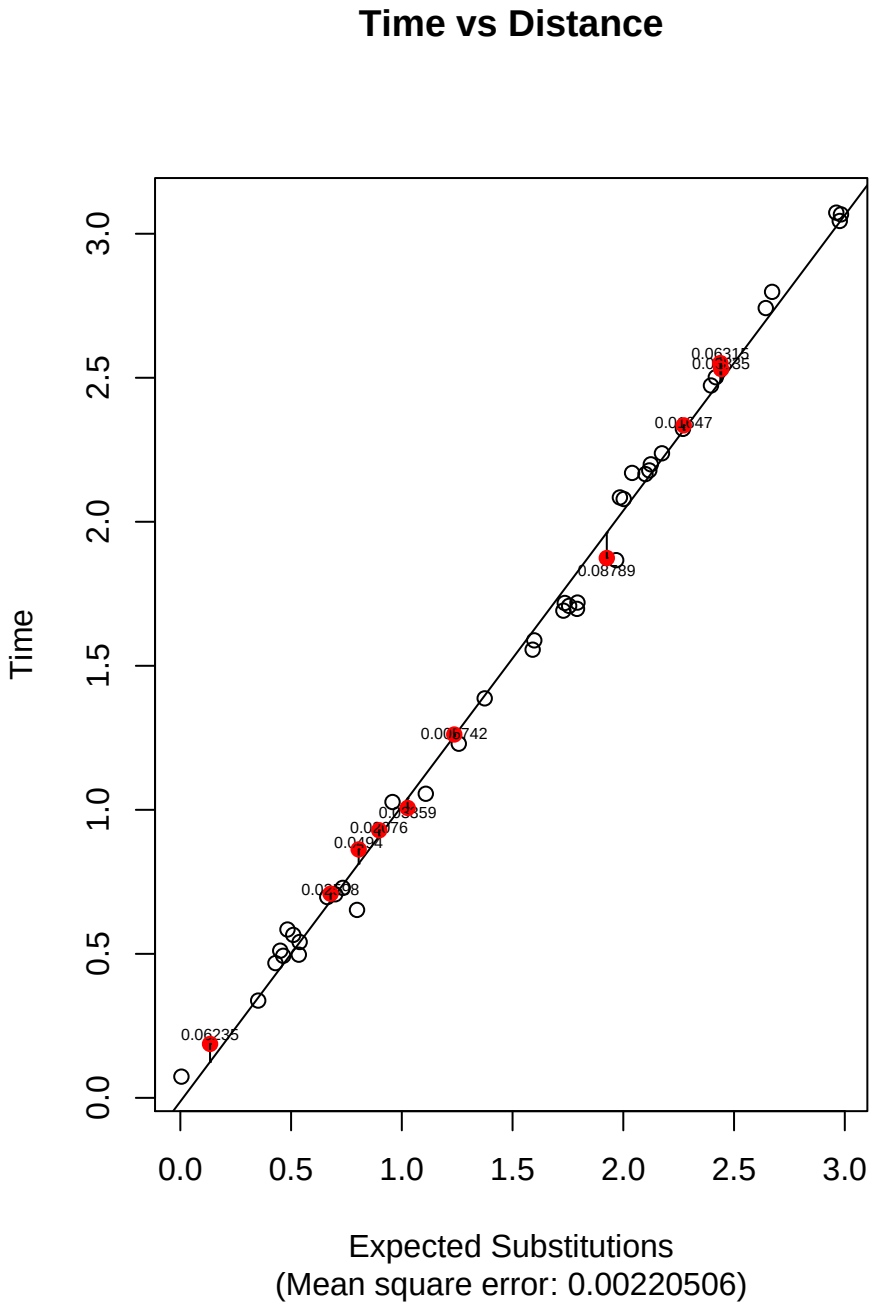

HIV RNA: Simulated−no.26 (Remove 10)
???
???
u33 t31 0.0802545017953044
u5 t3 0.115161854615175
u30 t44 0.670301452877766
u35 t33 0.720358655411404
u3 t30 0.80229307548575
u1 t22 1.04704971433332
u45 t48 1.06309806841688
u11 t12 0.711789531295177
u43 t50 0.704439547501679
???
u26 t25 2.44941048392984
u44 t4 1.93079098973085
u34 t11 1.86632574213239
???
u9 t26 2.41133554678425
u4 t36 2.24565328299226
???
u36 t15 2.36166835268155
u16 t20 2.30748371901255
u50 t8 2.22882570405044
u47 t47 2.01587428940572
u24 t6 1.7334905071976
???
u2 t18 1.86644866406353
u38 t37 2.37542783114921
u6 t29 2.4840111855165
u39 t49 2.31628745714269
u48 t41 2.21023724262231
u23 t35 2.23335358270801
u17 t9 2.39680358339992
u40 t39 2.17145376864473
u20 t24 2.34635683285302
u22 t14 2.26045255500695
u14 t27 2.25896552690437
???
u37 t13 2.33911015263849
???
u31 t7 1.96696594627905
u27 t28 1.97275261659331
u21 t10 1.64386075619842
u42 t17 1.54751155777381
u32 t38 1.49343255990972
???
???
u7 t21 1.46924576844631
u10 t34 0.874970725955655
u49 t1 0.535838663484133
u19 t5 0.292613969651293

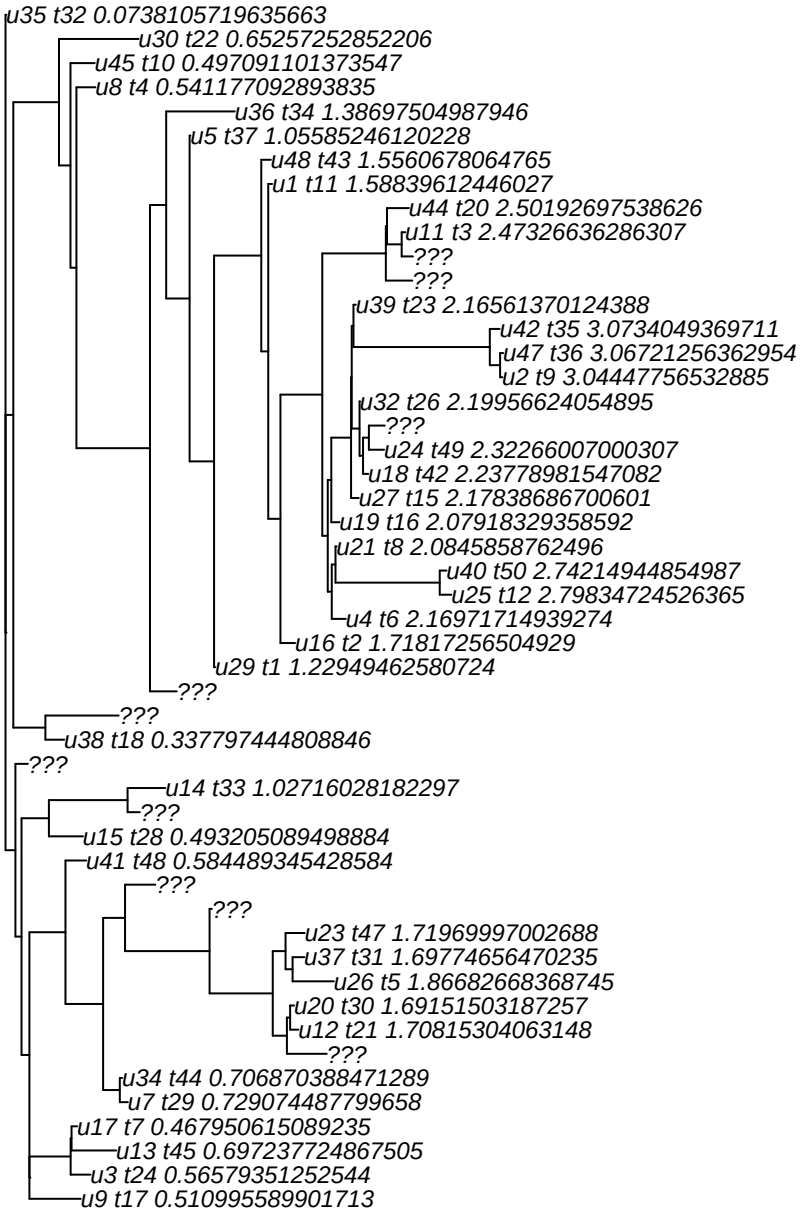

Time vs Distance
Time
0.5
1.0
1.5
0.0
0.5
1.0
1.5
0.207
Expected Substitutions
(Mean square error: 0.00911388)

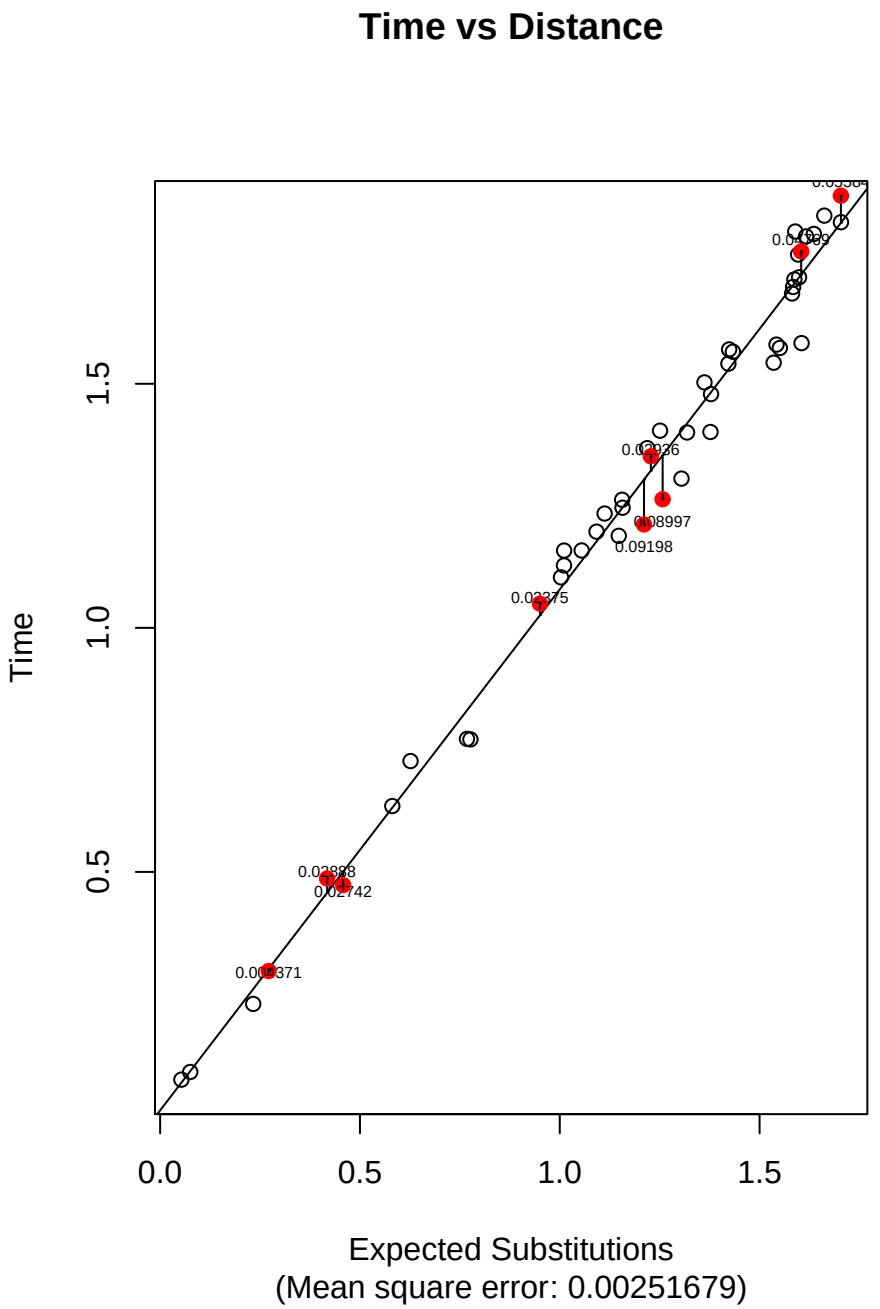

HIV RNA: Simulated−no.27 (Remove 10)
???
???
u27 t2 0.372005063244874
???
u50 t49 0.422317541068985
u35 t17 0.96562897875322
u5 t50 1.172709742109
u36 t11 1.23263469954763
u14 t40 1.19315286878103
u49 t13 1.01274392923342
u13 t41 0.995859643782152
u4 t33 1.22301414329293
u1 t31 1.29027015664398
u47 t36 1.42716969263335
u19 t22 1.27559853904732
u6 t5 1.15384030998042
u30 t4 1.08133202293489
u20 t21 1.09160293697098
???
u15 t45 1.18692842807674
u44 t47 1.18371875299973
u21 t37 1.12301400397423
u38 t35 1.05614411872367
u29 t15 0.469574841374929
u43 t30 0.430267523297085
???
u34 t10 1.56422132307426
u33 t26 1.73320939807331
u48 t16 1.53630865799926
u31 t8 1.43556534947866
???
u12 t24 1.52891949199316
u2 t28 1.48317203786075
u22 t29 1.46006357269508
???
???
u7 t1 1.56646557415117
???
u24 t42 1.27935550161978
u32 t44 1.14596068419108
u8 t23 1.45237405741048
u39 t34 1.36540341062566
???
u9 t25 0.449315236117684
u26 t43 0.438171779159935
u18 t14 0.420645068385914
u25 t12 0.537058771070428
u10 t6 0.423967046641441
u3 t7 0.444330470738978
u17 t39 0.167424685601066

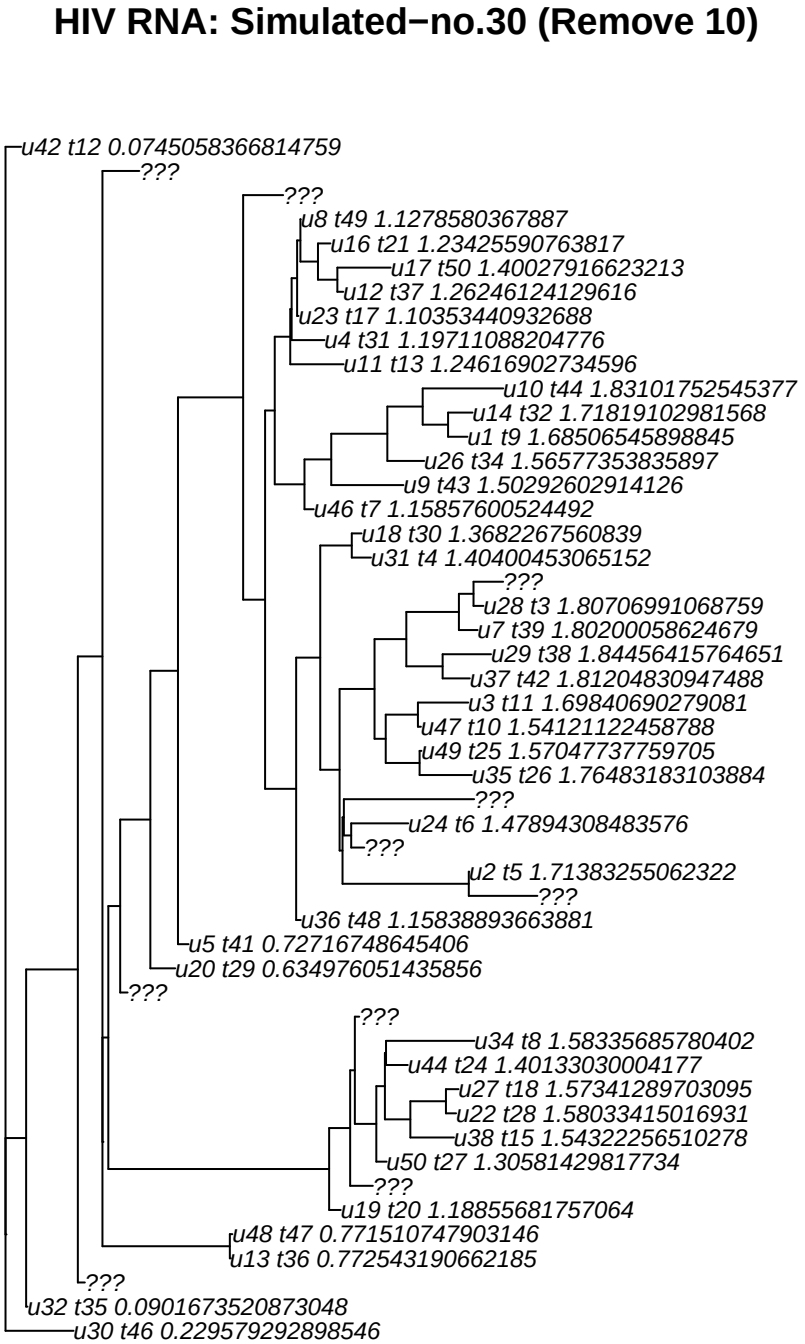

Time vs Distance
Time
0.5
1.0
1.5
2.0
2.5
3.0
0.06027
Expected Substitutions
(Mean square error: 0.00102481)

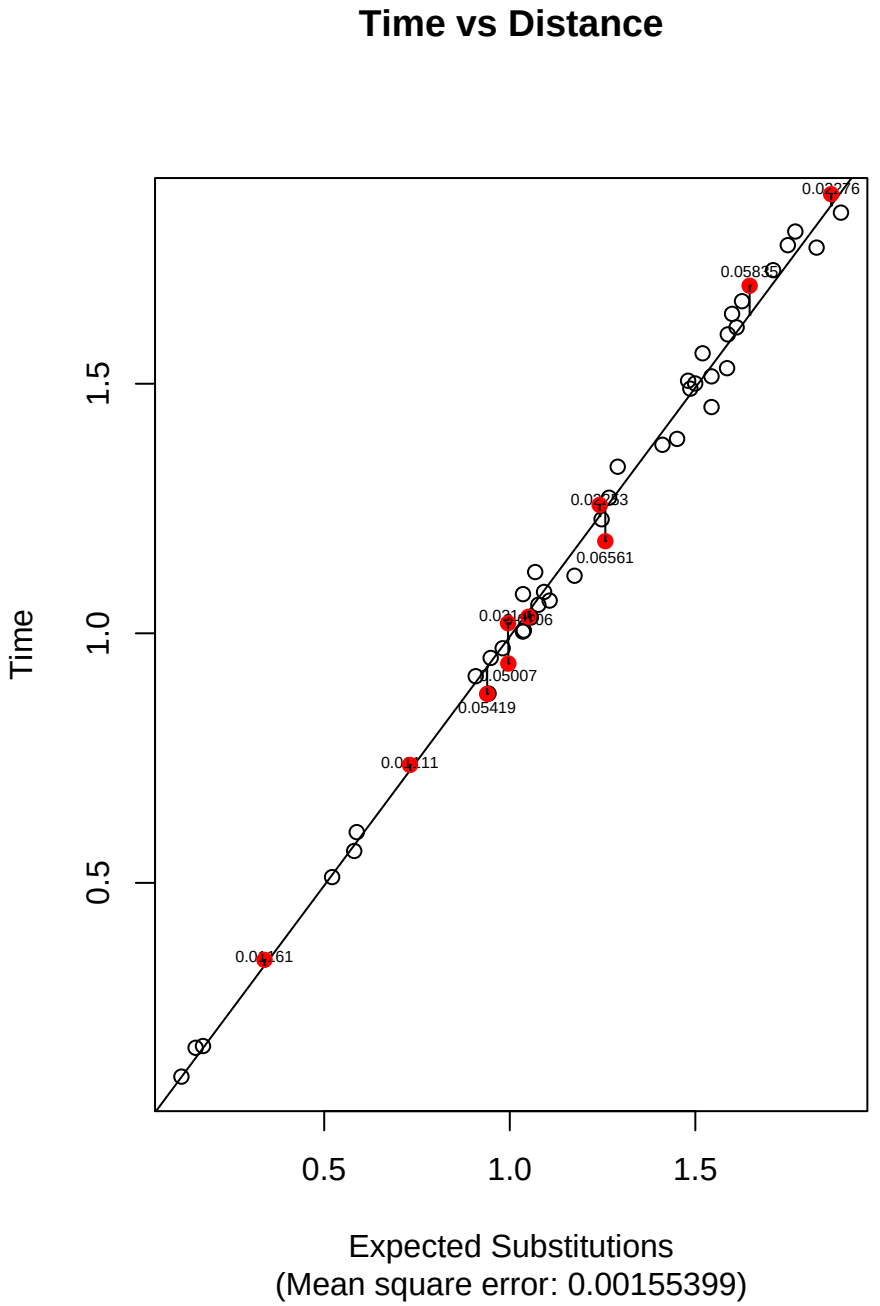

HIV RNA: Simulated−no.28 (Remove 10)
u36 t30 0.145535999092056
???
u47 t13 0.142238868811484
???
u37 t37 0.353608919322044
u15 t6 0.395127869825754
u25 t33 0.320942722309003
u50 t5 0.359647580063108
u31 t27 0.750743623395046
???
u33 t21 1.09969072176906
???
u26 t15 2.05473619896981
u48 t11 2.74614332350292
u8 t25 2.73242486167334
u24 t44 2.58190905094713
u16 t43 2.76264154295918
u10 t42 2.75761973436605
u49 t4 2.58413662546823
u12 t41 2.52690626088831
u20 t31 2.36722350860591
u4 t50 2.23065859056342
u21 t45 2.11383866318773
u2 t12 2.18695694279576
???
u43 t39 2.18450170750163
u41 t3 1.99531805103702
???
u39 t17 2.54685767480533
u45 t29 2.31054125445157
???
u14 t14 2.17037729033317
u29 t28 2.15083973798399
u13 t8 1.954044074648
u30 t19 2.98739358822244
???
u6 t7 3.1456941872641
u5 t49 3.03780853286366
???
u3 t32 2.2453375754693
u42 t35 1.89089835119776
???
u23 t46 1.69989242654613
u44 t26 1.53917598232867
u34 t16 1.52075163914727
u35 t36 1.3168456472078
u9 t2 1.12840673628364
u46 t1 0.981830241799747
u40 t20 0.446717342359779
u27 t38 0.237013452817838

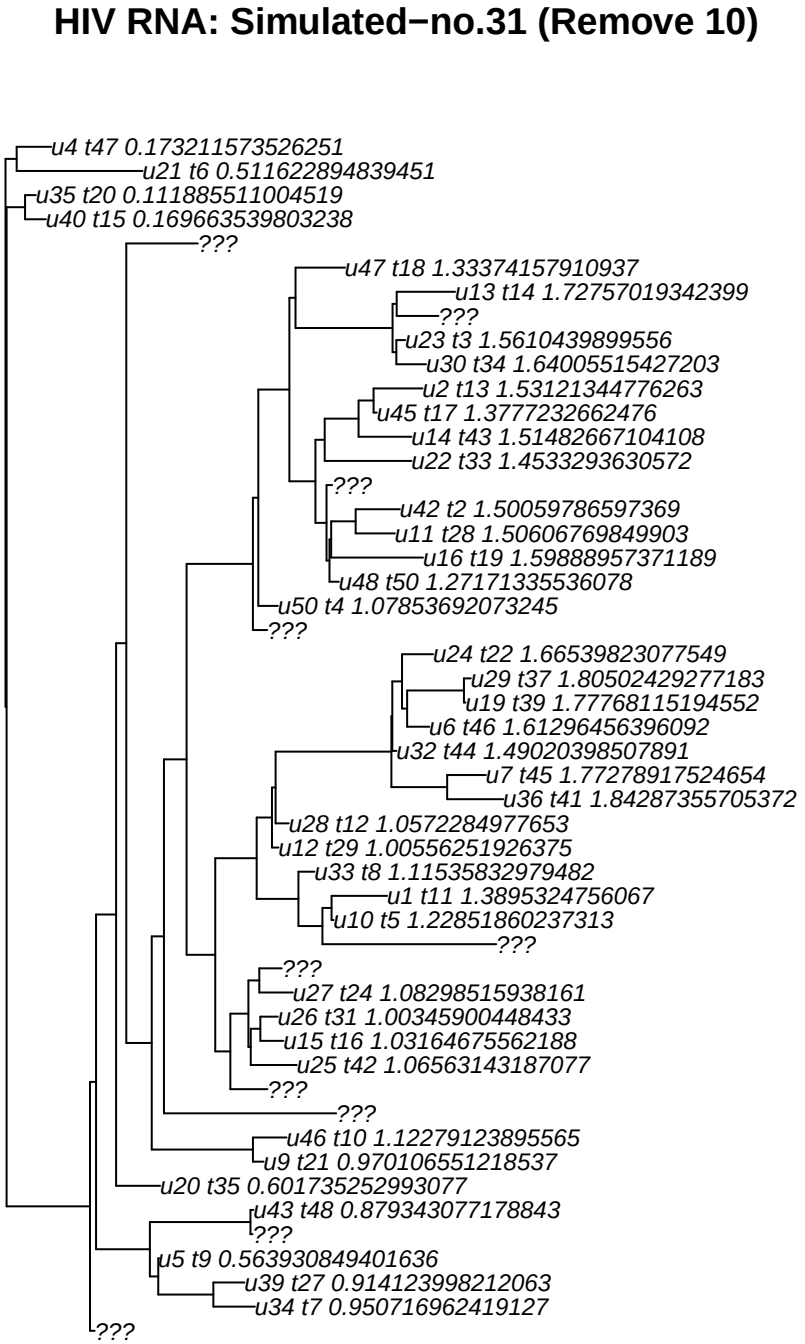

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.06235
0.08789
Expected Substitutions
(Mean square error: 0.00220506)

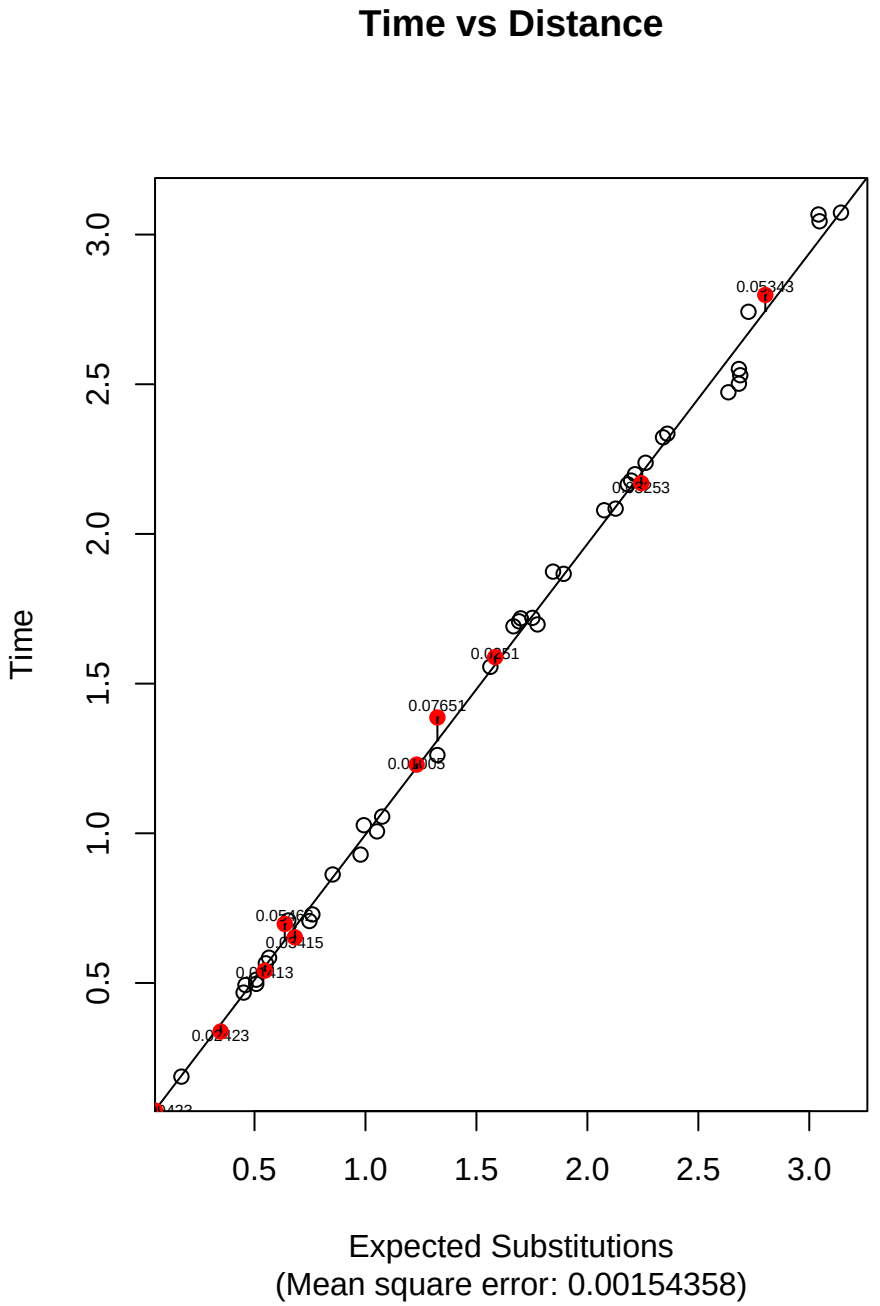

HIV RNA: Simulated−no.29 (Remove 10)
u35 t32 0.0738105719635663
u30 t22 0.65257252852206
u45 t10 0.497091101373547
u8 t4 0.541177092893835
u36 t34 1.38697504987946
u5 t37 1.05585246120228
u48 t43 1.5560678064765
u1 t11 1.58839612446027
u44 t20 2.50192697538626
u11 t3 2.47326636286307
???
???
u39 t23 2.16561370124388
u42 t35 3.0734049369711
u47 t36 3.06721256362954
u2 t9 3.04447756532885
u32 t26 2.19956624054895
???
u24 t49 2.32266007000307
u18 t42 2.23778981547082
u27 t15 2.17838686700601
u19 t16 2.07918329358592
u21 t8 2.0845858762496
u40 t50 2.74214944854987
u25 t12 2.79834724526365
u4 t6 2.16971714939274
u16 t2 1.71817256504929
u29 t1 1.22949462580724
???
???
u38 t18 0.337797444808846
???
u14 t33 1.02716028182297
???
u15 t28 0.493205089498884
u41 t48 0.584489345428584
???
???
u23 t47 1.71969997002688
u37 t31 1.69774656470235
u26 t5 1.86682668368745
u20 t30 1.69151503187257
u12 t21 1.70815304063148
???
u34 t44 0.706870388471289
u7 t29 0.729074487799658
u17 t7 0.467950615089235
u13 t45 0.697237724867505
u3 t24 0.56579351252544
u9 t17 0.510995589901713

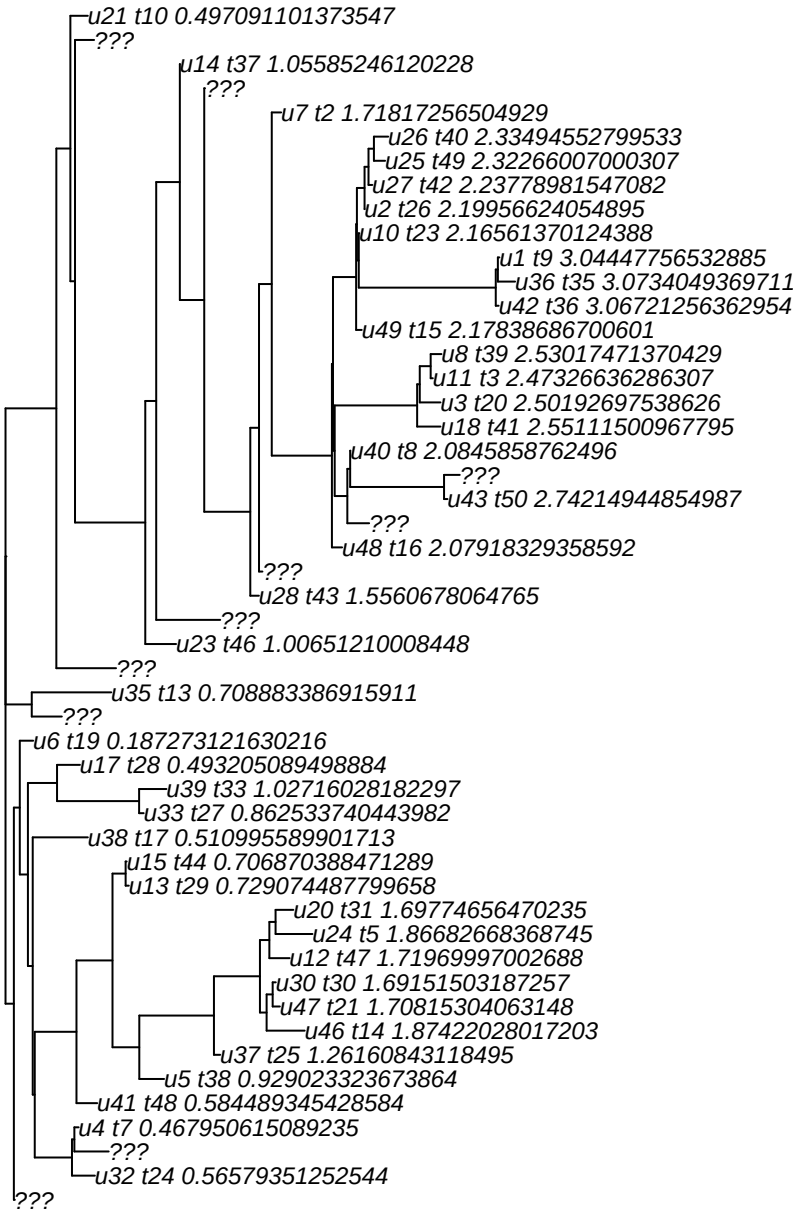

Time vs Distance
Time
0.0
0.5
1.0
1.5
0.5
1.0
1.5
0.08997
0.09198
0.02742
Expected Substitutions
(Mean square error: 0.00251679)

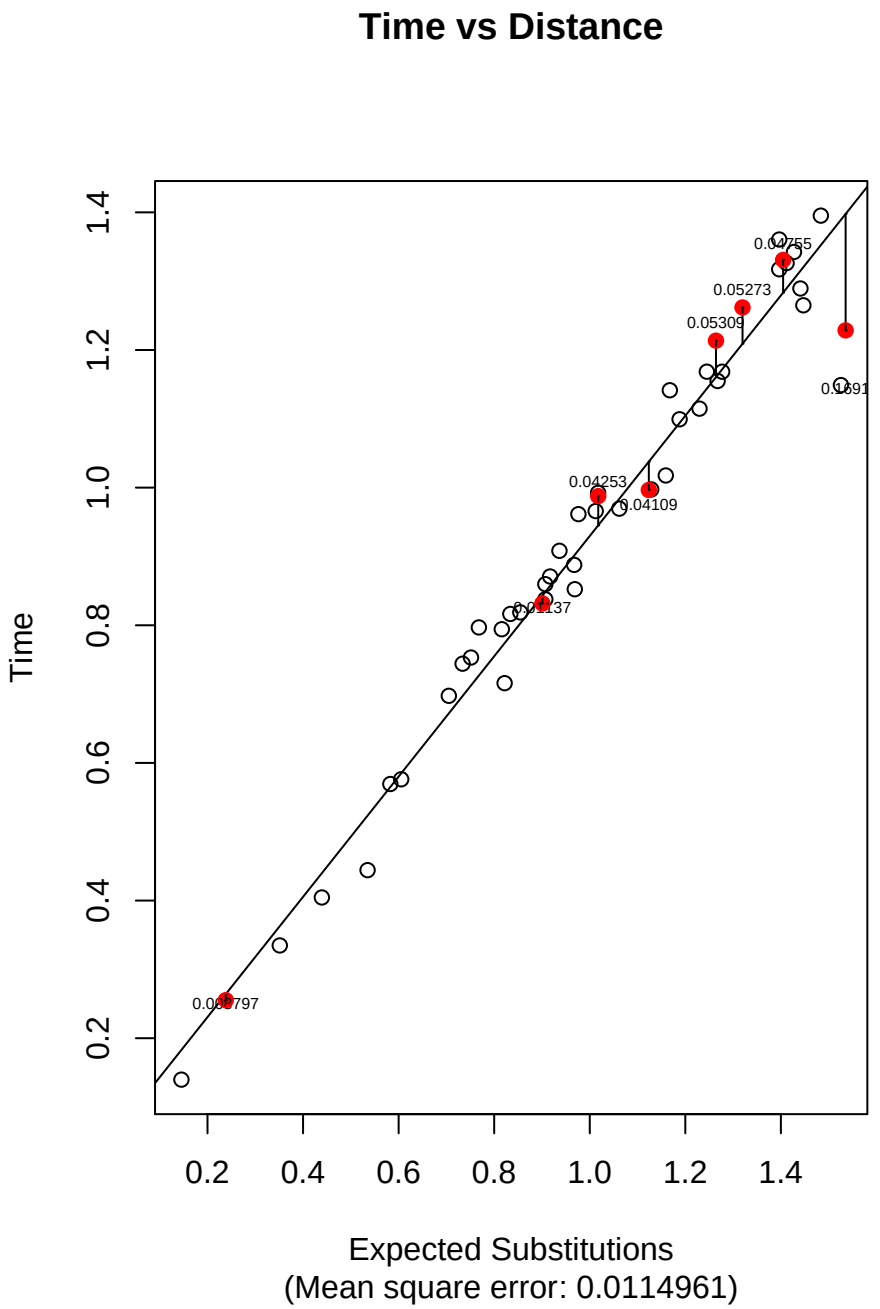

HIV RNA: Simulated−no.30 (Remove 10)
u42 t12 0.0745058366814759
???
???
u8 t49 1.1278580367887
u16 t21 1.23425590763817
u17 t50 1.40027916623213
u12 t37 1.26246124129616
u23 t17 1.10353440932688
u4 t31 1.19711088204776
u11 t13 1.24616902734596
u10 t44 1.83101752545377
u14 t32 1.71819102981568
u1 t9 1.68506545898845
u26 t34 1.56577353835897
u9 t43 1.50292602914126
u46 t7 1.15857600524492
u18 t30 1.3682267560839
u31 t4 1.40400453065152
???
u28 t3 1.80706991068759
u7 t39 1.80200058624679
u29 t38 1.84456415764651
u37 t42 1.81204830947488
u3 t11 1.69840690279081
u47 t10 1.54121122458788
u49 t25 1.57047737759705
u35 t26 1.76483183103884
???
u24 t6 1.47894308483576
???
u2 t5 1.71383255062322
???
u36 t48 1.15838893663881
u5 t41 0.72716748645406
u20 t29 0.634976051435856
???
???
u34 t8 1.58335685780402
u44 t24 1.40133030004177
u27 t18 1.57341289703095
u22 t28 1.58033415016931
u38 t15 1.54322256510278
u50 t27 1.30581429817734
???
u19 t20 1.18855681757064
u48 t47 0.771510747903146
u13 t36 0.772543190662185
???
u32 t35 0.0901673520873048
u30 t46 0.229579292898546

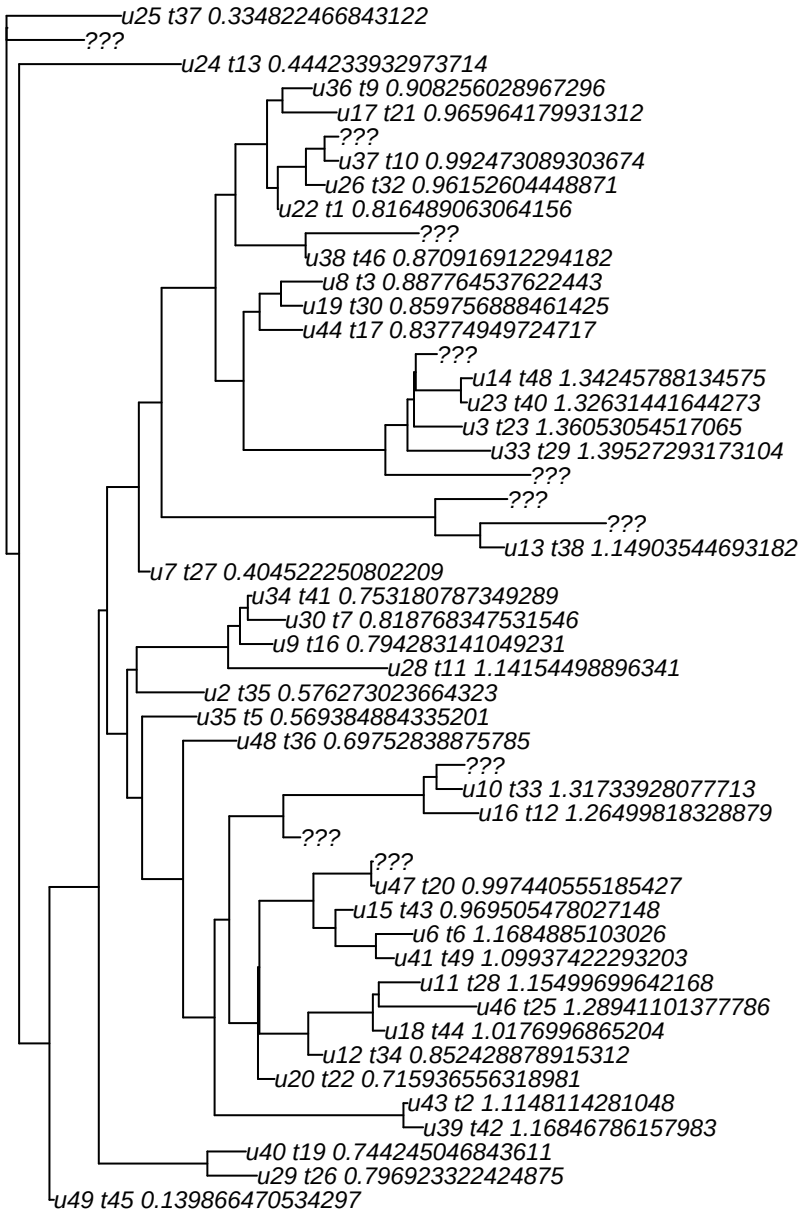

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
0.06561
0.05419
0.04111
0.01761
Expected Substitutions
(Mean square error: 0.00155399)

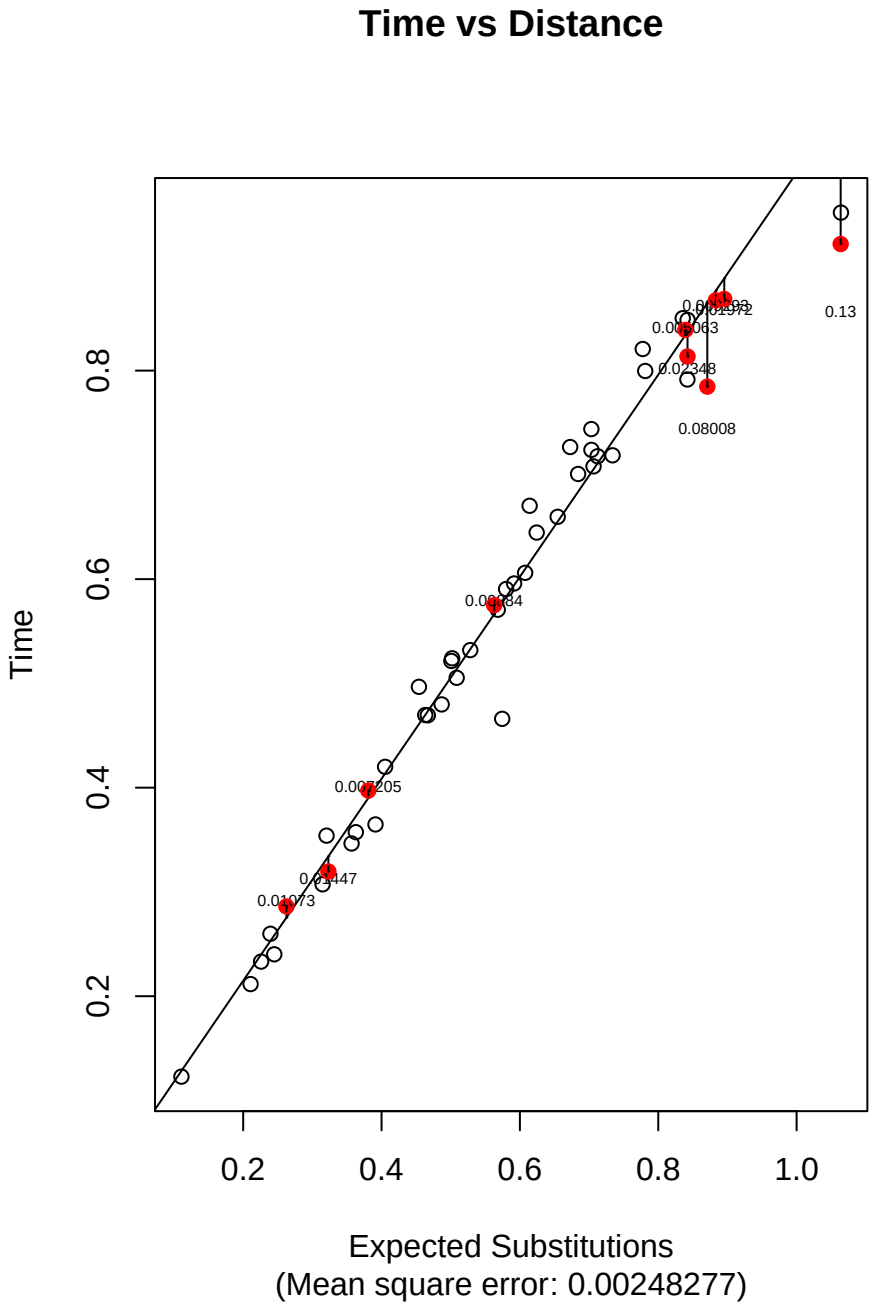

HIV RNA: Simulated−no.31 (Remove 10)
u4 t47 0.173211573526251
u21 t6 0.511622894839451
u35 t20 0.111885511004519
u40 t15 0.169663539803238
???
u47 t18 1.33374157910937
u13 t14 1.72757019342399
???
u23 t3 1.5610439899556
u30 t34 1.64005515427203
u2 t13 1.53121344776263
u45 t17 1.3777232662476
u14 t43 1.51482667104108
u22 t33 1.4533293630572
???
u42 t2 1.50059786597369
u11 t28 1.50606769849903
u16 t19 1.59888957371189
u48 t50 1.27171335536078
u50 t4 1.07853692073245
???
u24 t22 1.66539823077549
u29 t37 1.80502429277183
u19 t39 1.77768115194552
u6 t46 1.61296456396092
u32 t44 1.49020398507891
u7 t45 1.77278917524654
u36 t41 1.84287355705372
u28 t12 1.0572284977653
u12 t29 1.00556251926375
u33 t8 1.11535832979482
u1 t11 1.3895324756067
u10 t5 1.22851860237313
???
???
u27 t24 1.08298515938161
u26 t31 1.00345900448433
u15 t16 1.03164675562188
u25 t42 1.06563143187077
???
???
u46 t10 1.12279123895565
u9 t21 0.970106551218537
u20 t35 0.601735252993077
u43 t48 0.879343077178843
???
u5 t9 0.563930849401636
u39 t27 0.914123998212063
u34 t7 0.950716962419127
???

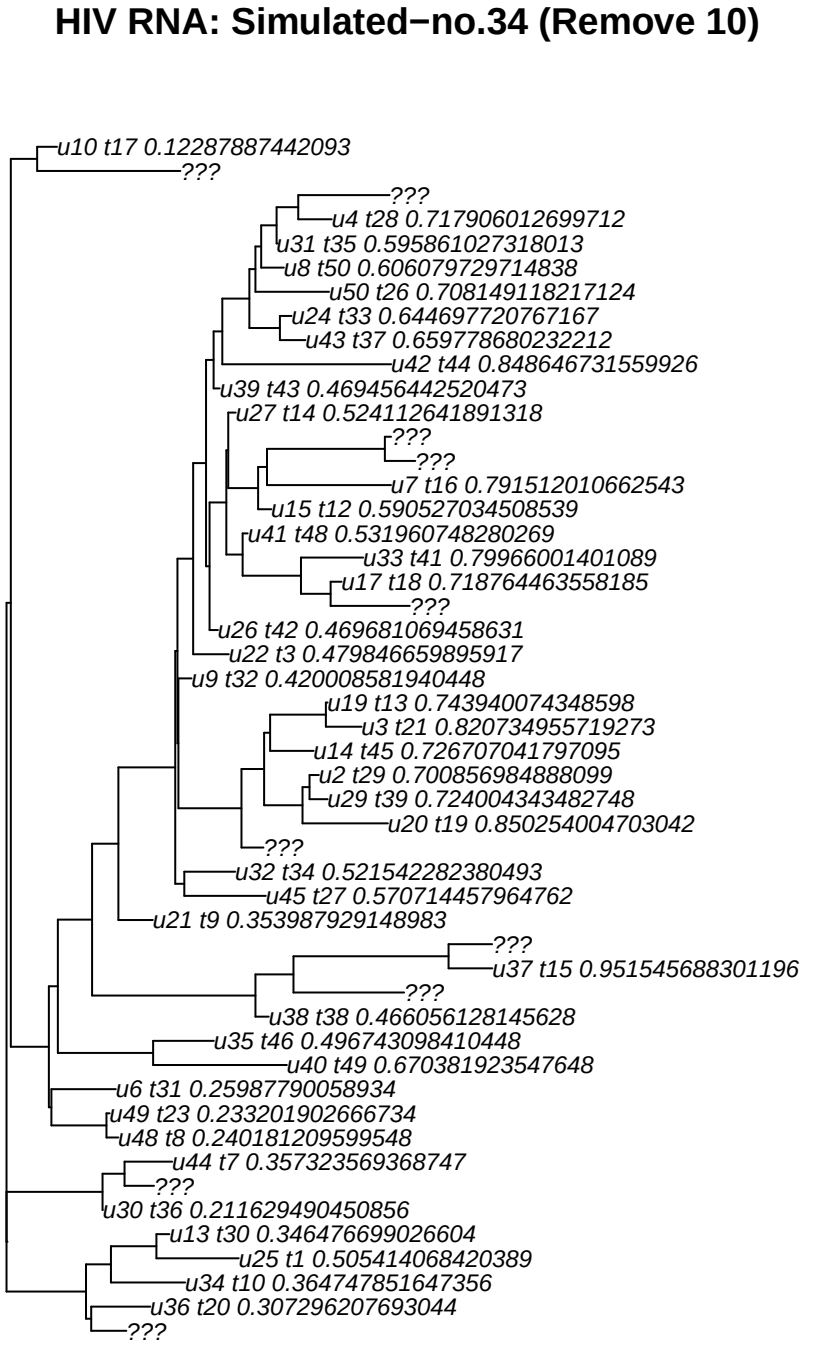

Time vs Distance
Time
0.5
1.0
1.5
2.0
2.5
3.0
0.05343
0.07651
Expected Substitutions
(Mean square error: 0.00154358)

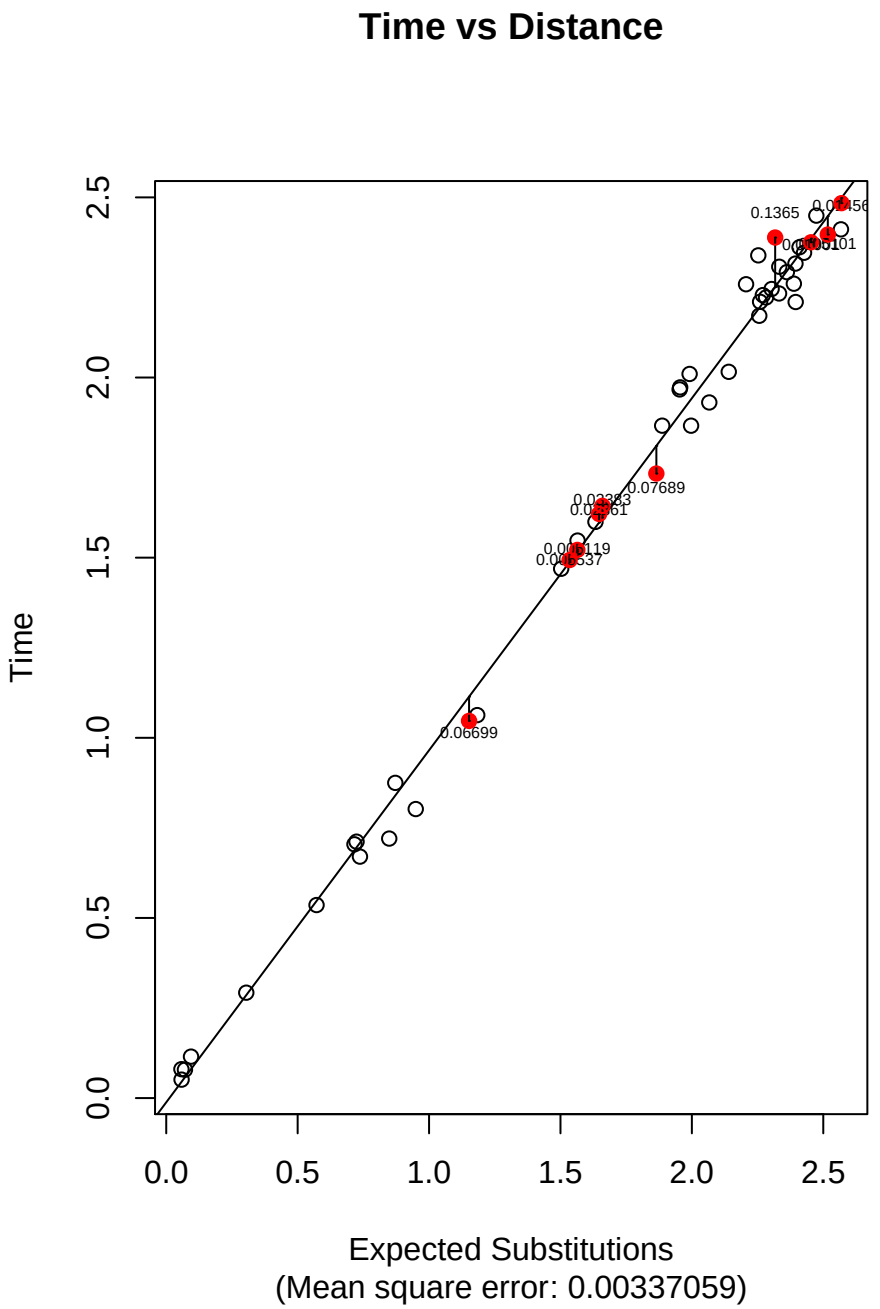

HIV RNA: Simulated−no.32 (Remove 10)
u21 t10 0.497091101373547
???
u14 t37 1.05585246120228
???
u7 t2 1.71817256504929
u26 t40 2.33494552799533
u25 t49 2.32266007000307
u27 t42 2.23778981547082
u2 t26 2.19956624054895
u10 t23 2.16561370124388
u1 t9 3.04447756532885
u36 t35 3.0734049369711
u42 t36 3.06721256362954
u49 t15 2.17838686700601
u8 t39 2.53017471370429
u11 t3 2.47326636286307
u3 t20 2.50192697538626
u18 t41 2.55111500967795
u40 t8 2.0845858762496
???
u43 t50 2.74214944854987
???
u48 t16 2.07918329358592
???
u28 t43 1.5560678064765
???
u23 t46 1.00651210008448
???
u35 t13 0.708883386915911
???
u6 t19 0.187273121630216
u17 t28 0.493205089498884
u39 t33 1.02716028182297
u33 t27 0.862533740443982
u38 t17 0.510995589901713
u15 t44 0.706870388471289
u13 t29 0.729074487799658
u20 t31 1.69774656470235
u24 t5 1.86682668368745
u12 t47 1.71969997002688
u30 t30 1.69151503187257
u47 t21 1.70815304063148
u46 t14 1.87422028017203
u37 t25 1.26160843118495
u5 t38 0.929023323673864
u41 t48 0.584489345428584
u4 t7 0.467950615089235
???
u32 t24 0.56579351252544
???

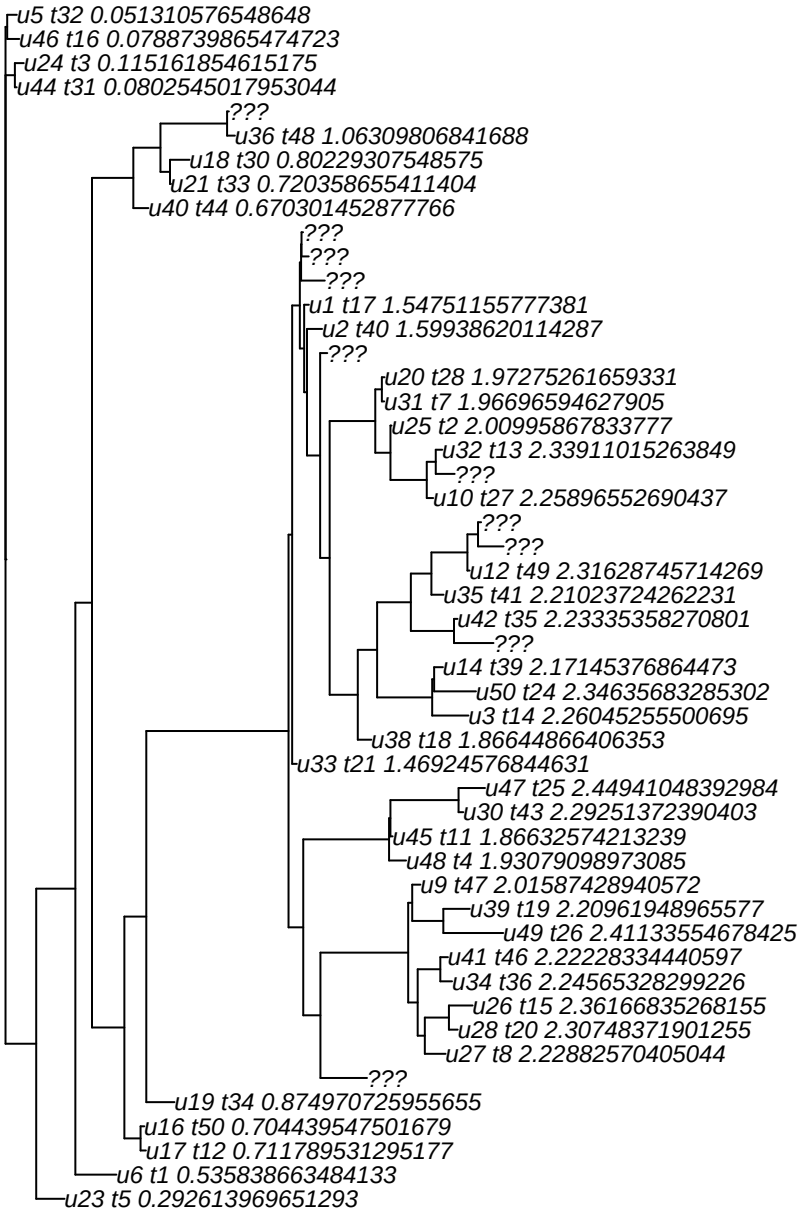

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0114961)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.04755
0.05273
0.05309
0.04253
0.04109
0.04137

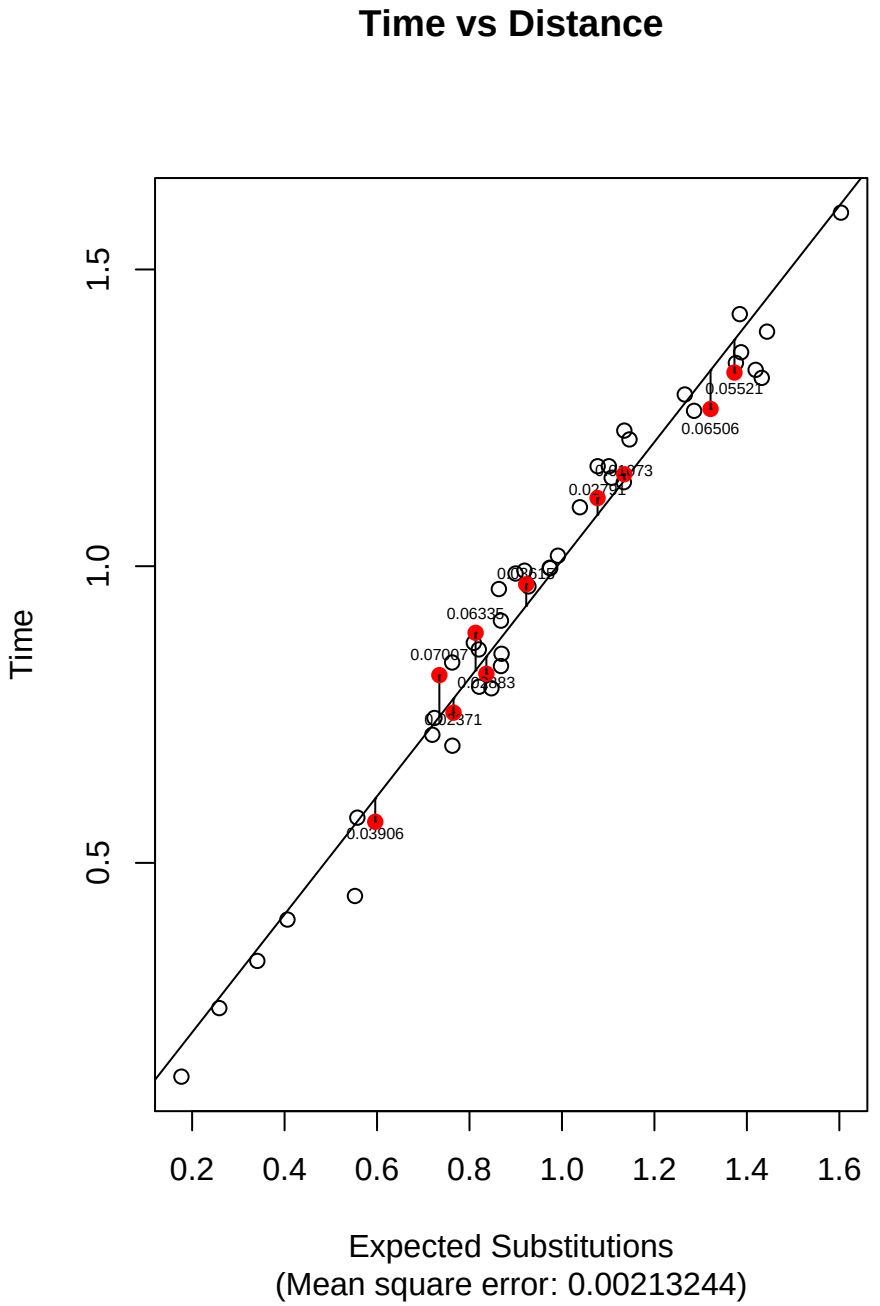

HIV RNA: Simulated−no.33 (Remove 10)
u25 t37 0.334822466843122
???
u24 t13 0.444233932973714
u36 t9 0.908256028967296
u17 t21 0.965964179931312
???
u37 t10 0.992473089303674
u26 t32 0.96152604448871
u22 t1 0.816489063064156
???
u38 t46 0.870916912294182
u8 t3 0.887764537622443
u19 t30 0.859756888461425
u44 t17 0.83774949724717
???
u14 t48 1.34245788134575
u23 t40 1.32631441644273
u3 t23 1.36053054517065
u33 t29 1.39527293173104
???
???
???
u13 t38 1.14903544693182
u7 t27 0.404522250802209
u34 t41 0.753180787349289
u30 t7 0.818768347531546
u9 t16 0.794283141049231
u28 t11 1.14154498896341
u2 t35 0.576273023664323
u35 t5 0.569384884335201
u48 t36 0.69752838875785
???
u10 t33 1.31733928077713
u16 t12 1.26499818328879
???
???
u47 t20 0.997440555185427
u15 t43 0.969505478027148
u6 t6 1.1684885103026
u41 t49 1.09937422293203
u11 t28 1.15499699642168
u46 t25 1.28941101377786
u18 t44 1.0176996865204
u12 t34 0.852428878915312
u20 t22 0.715936556318981
u43 t2 1.1148114281048
u39 t42 1.16846786157983
u40 t19 0.744245046843611
u29 t26 0.796923322424875
u49 t45 0.139866470534297

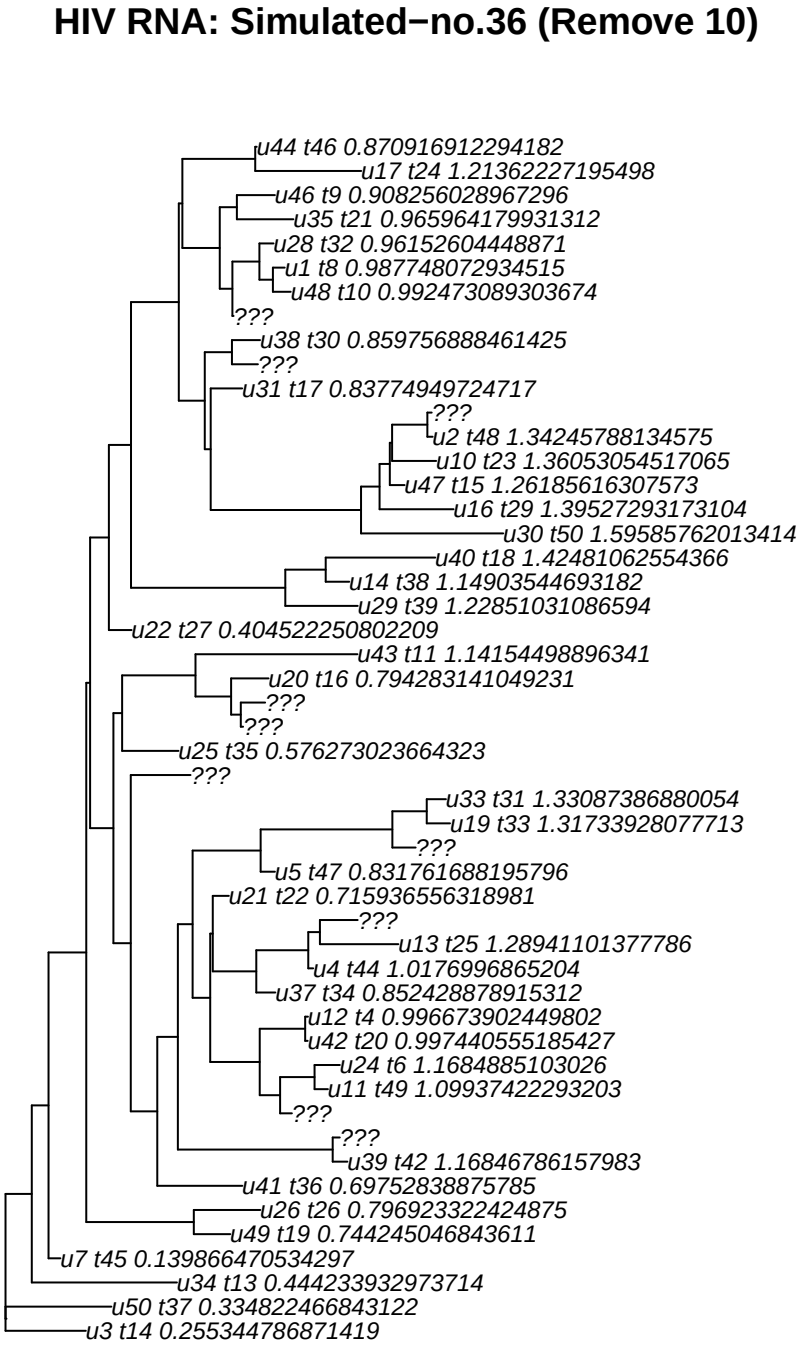

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00248277)
0.2
0.4
0.6
0.8
1.0
0.13
0.08008
0.02348
0.007205
0.01073

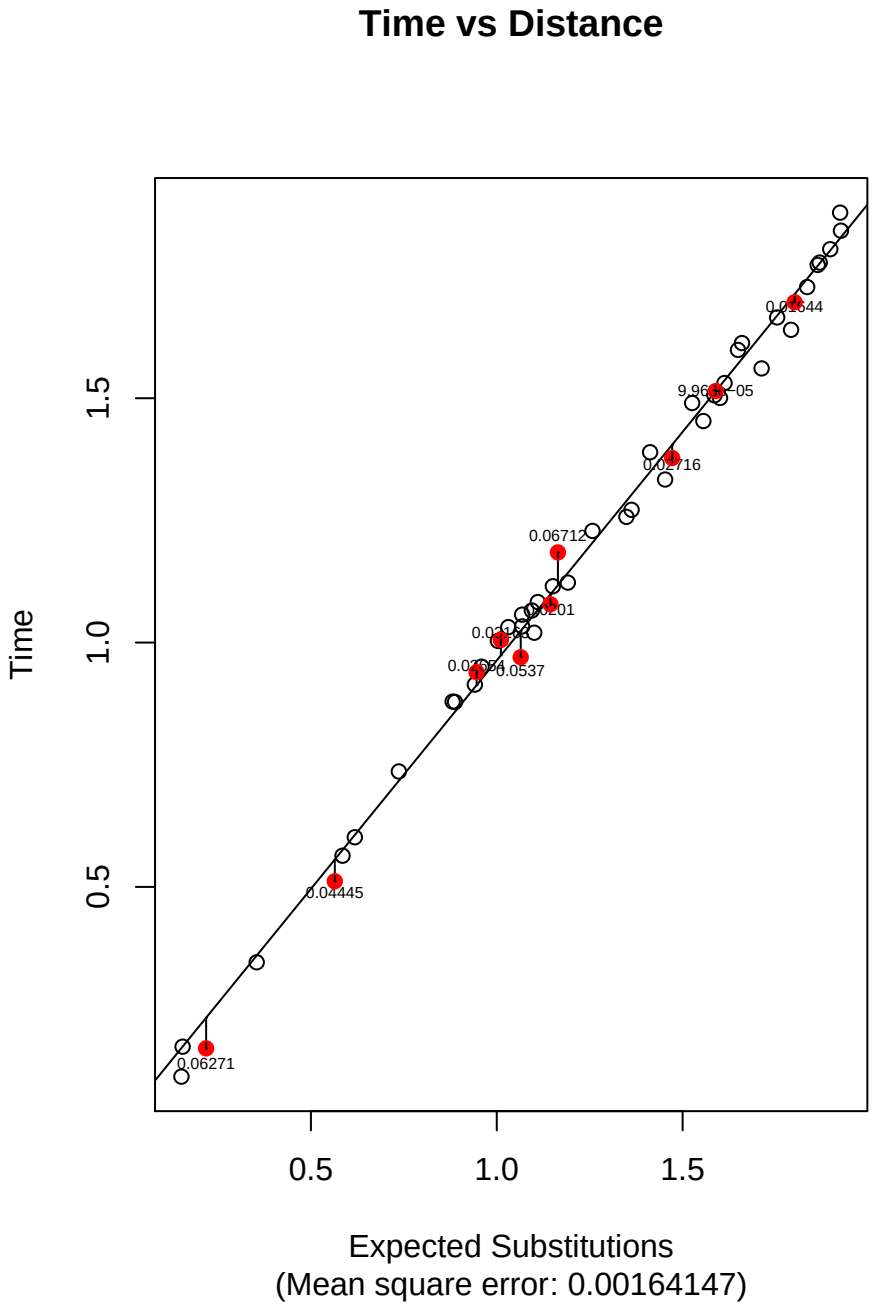

HIV RNA: Simulated−no.34 (Remove 10)
u10 t17 0.12287887442093
???
???
u4 t28 0.717906012699712
u31 t35 0.595861027318013
u8 t50 0.606079729714838
u50 t26 0.708149118217124
u24 t33 0.644697720767167
u43 t37 0.659778680232212
u42 t44 0.848646731559926
u39 t43 0.469456442520473
u27 t14 0.524112641891318
???
???
u7 t16 0.791512010662543
u15 t12 0.590527034508539
u41 t48 0.531960748280269
u33 t41 0.79966001401089
u17 t18 0.718764463558185
???
u26 t42 0.469681069458631
u22 t3 0.479846659895917
u9 t32 0.420008581940448
u19 t13 0.743940074348598
u3 t21 0.820734955719273
u14 t45 0.726707041797095
u2 t29 0.700856984888099
u29 t39 0.724004343482748
u20 t19 0.850254004703042
???
u32 t34 0.521542282380493
u45 t27 0.570714457964762
u21 t9 0.353987929148983
???
u37 t15 0.951545688301196
???
u38 t38 0.466056128145628
u35 t46 0.496743098410448
u40 t49 0.670381923547648
u6 t31 0.25987790058934
u49 t23 0.233201902666734
u48 t8 0.240181209599548
u44 t7 0.357323569368747
???
u30 t36 0.211629490450856
u13 t30 0.346476699026604
u25 t1 0.505414068420389
u34 t10 0.364747851647356
u36 t20 0.307296207693044
???

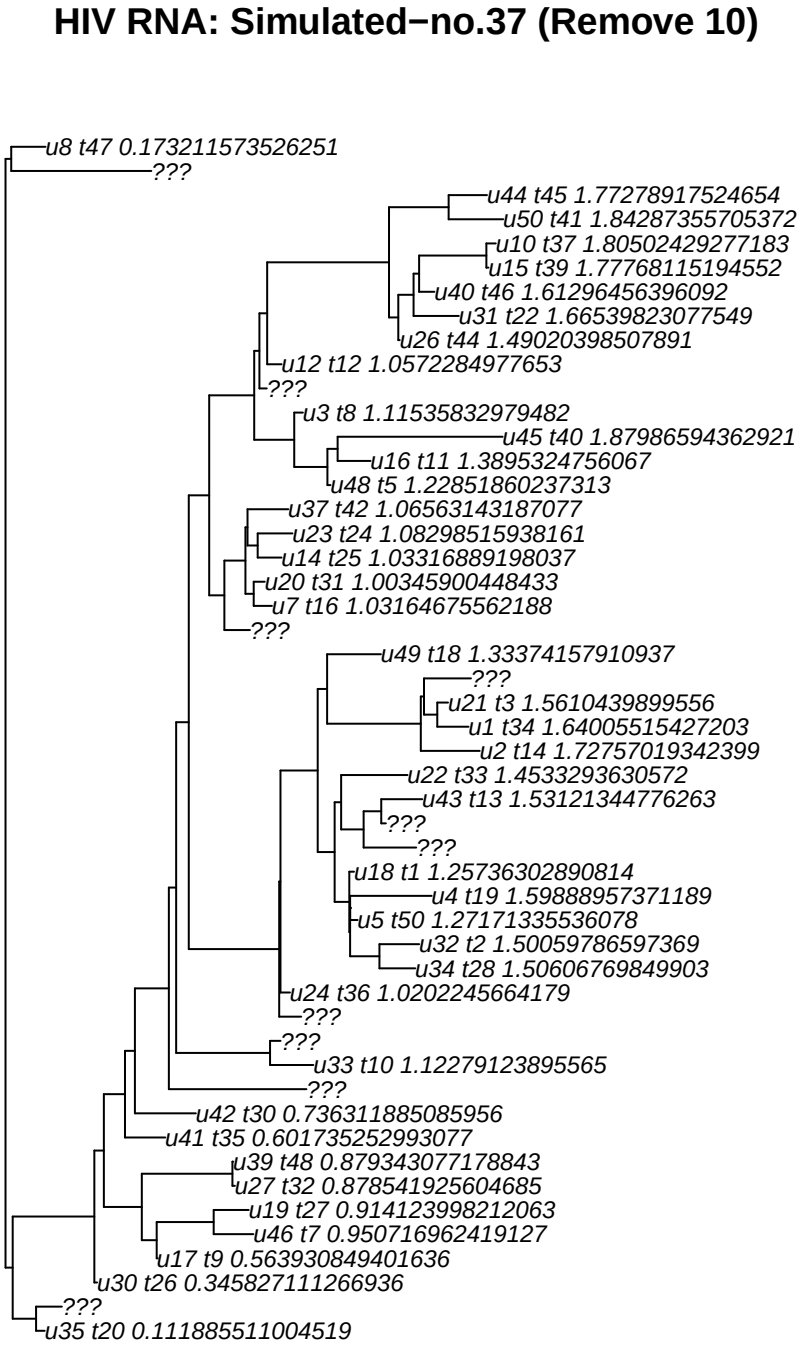

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00337059)
0.0
0.5
1.0
1.5
2.0
2.5
0.1365
0.07689
0.06699


HIV RNA: Simulated−no.35 (Remove 10)
u5 t32 0.051310576548648
u46 t16 0.0788739865474723
u24 t3 0.115161854615175
u44 t31 0.0802545017953044
???
u36 t48 1.06309806841688
u18 t30 0.80229307548575
u21 t33 0.720358655411404
u40 t44 0.670301452877766
???
???
???
u1 t17 1.54751155777381
u2 t40 1.59938620114287
???
u20 t28 1.97275261659331
u31 t7 1.96696594627905
u25 t2 2.00995867833777
u32 t13 2.33911015263849
???
u10 t27 2.25896552690437
???
???
u12 t49 2.31628745714269
u35 t41 2.21023724262231
u42 t35 2.23335358270801
???
u14 t39 2.17145376864473
u50 t24 2.34635683285302
u3 t14 2.26045255500695
u38 t18 1.86644866406353
u33 t21 1.46924576844631
u47 t25 2.44941048392984
u30 t43 2.29251372390403
u45 t11 1.86632574213239
u48 t4 1.93079098973085
u9 t47 2.01587428940572
u39 t19 2.20961948965577
u49 t26 2.41133554678425
u41 t46 2.22228334440597
u34 t36 2.24565328299226
u26 t15 2.36166835268155
u28 t20 2.30748371901255
u27 t8 2.22882570405044
???
u19 t34 0.874970725955655
u16 t50 0.704439547501679
u17 t12 0.711789531295177
u6 t1 0.535838663484133
u23 t5 0.292613969651293

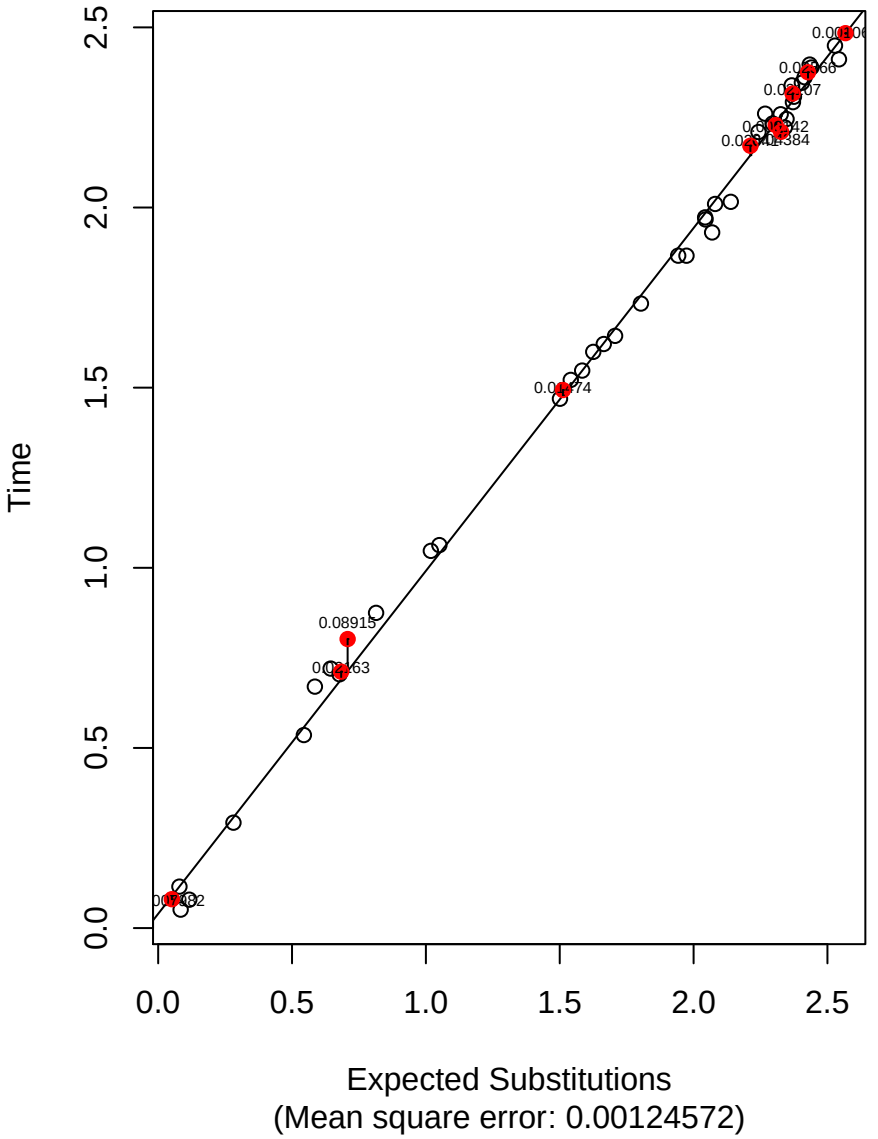

Time vs Distance
Time
0.5
1.0
1.5
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.05521
0.06506
0.02791
0.06335
0.07087
0.03906
Expected Substitutions
(Mean square error: 0.00213244)


HIV RNA: Simulated−no.36 (Remove 10)
u44 t46 0.870916912294182
u17 t24 1.21362227195498
u46 t9 0.908256028967296
u35 t21 0.965964179931312
u28 t32 0.96152604448871
u1 t8 0.987748072934515
u48 t10 0.992473089303674
???
u38 t30 0.859756888461425
???
u31 t17 0.83774949724717
???
u2 t48 1.34245788134575
u10 t23 1.36053054517065
u47 t15 1.26185616307573
u16 t29 1.39527293173104
u30 t50 1.59585762013414
u40 t18 1.42481062554366
u14 t38 1.14903544693182
u29 t39 1.22851031086594
u22 t27 0.404522250802209
u43 t11 1.14154498896341
u20 t16 0.794283141049231
???
???
u25 t35 0.576273023664323
???
u33 t31 1.33087386880054
u19 t33 1.31733928077713
???
u5 t47 0.831761688195796
u21 t22 0.715936556318981
???
u13 t25 1.28941101377786
u4 t44 1.0176996865204
u37 t34 0.852428878915312
u12 t4 0.996673902449802
u42 t20 0.997440555185427
u24 t6 1.1684885103026
u11 t49 1.09937422293203
???
???
u39 t42 1.16846786157983
u41 t36 0.69752838875785
u26 t26 0.796923322424875
u49 t19 0.744245046843611
u7 t45 0.139866470534297
u34 t13 0.444233932973714
u50 t37 0.334822466843122
u3 t14 0.255344786871419

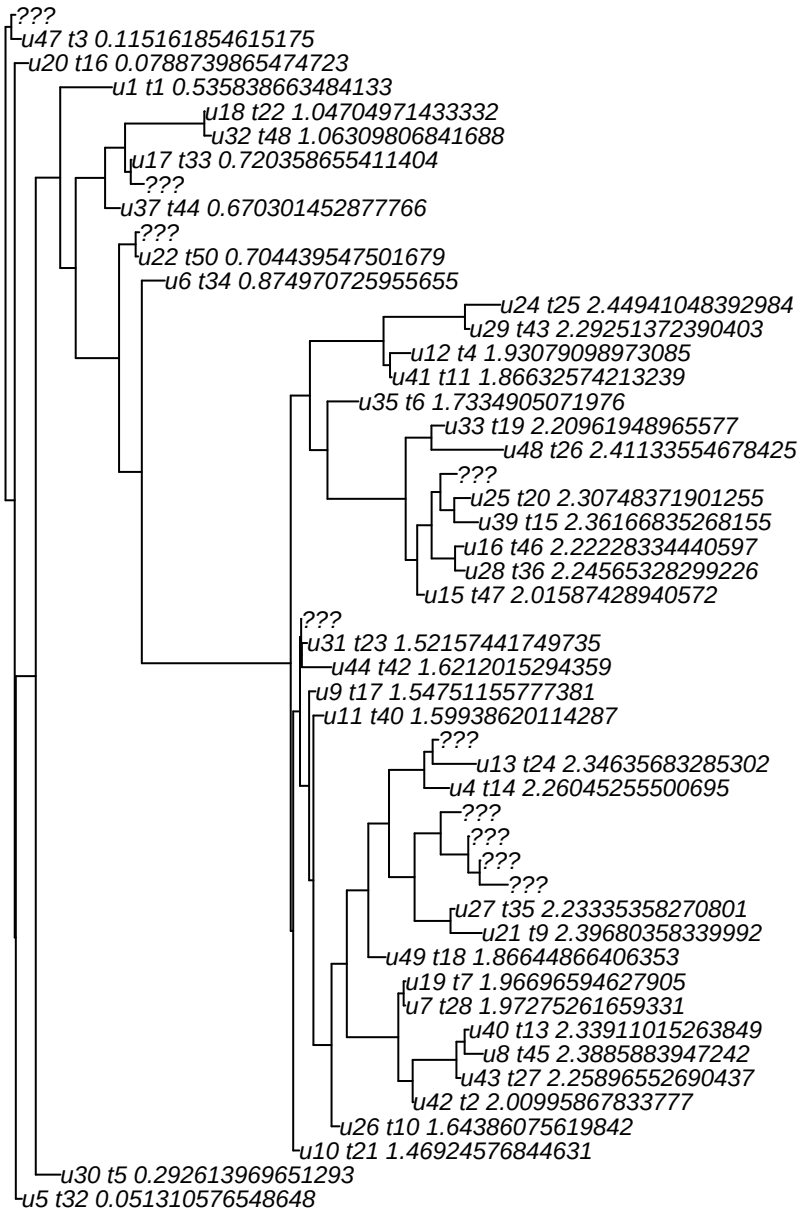

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00164147)
0.06271
0.04445
0.0537
0.06712
0.02716
0.01644

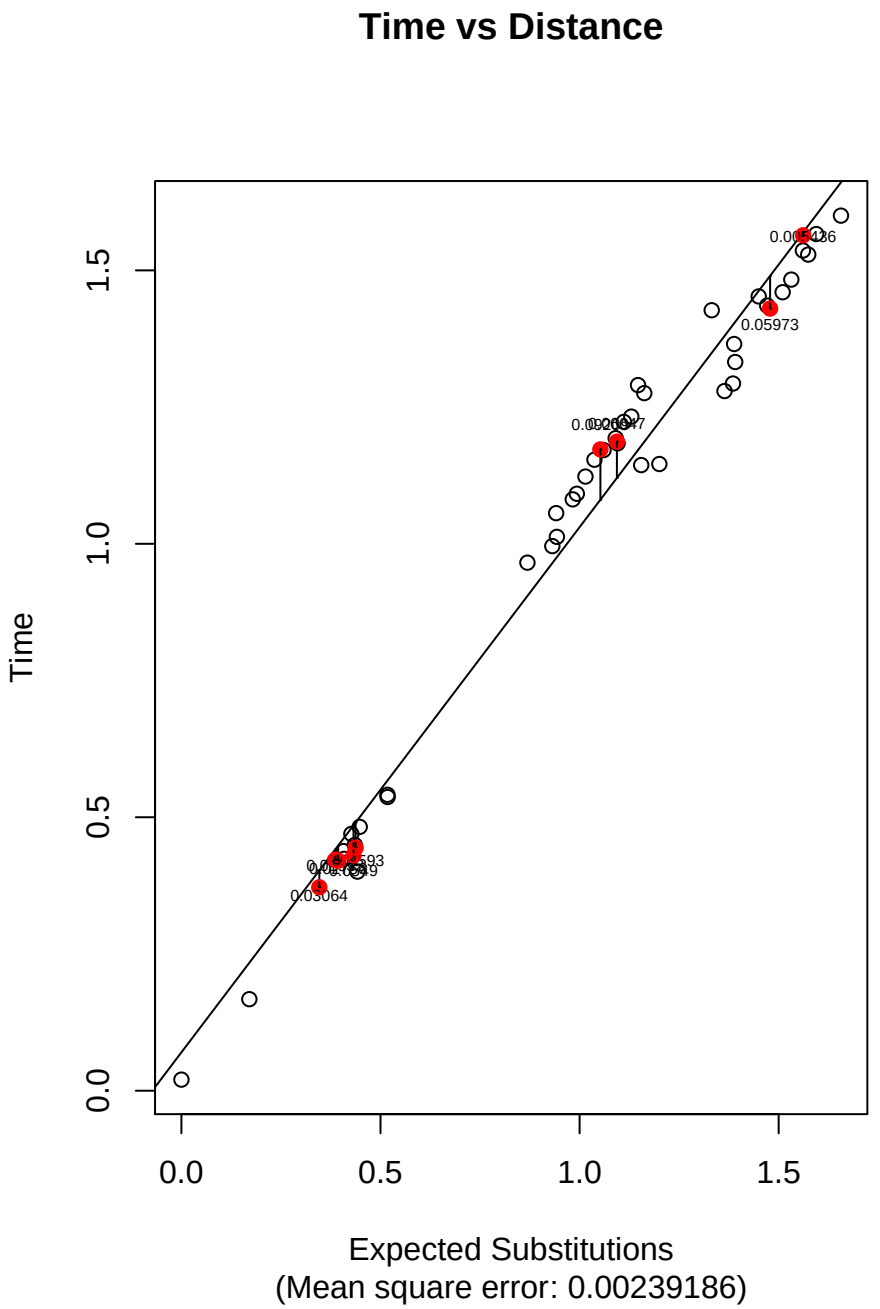

HIV RNA: Simulated−no.37 (Remove 10)
u8 t47 0.173211573526251
???
u44 t45 1.77278917524654
u50 t41 1.84287355705372
u10 t37 1.80502429277183
u15 t39 1.77768115194552
u40 t46 1.61296456396092
u31 t22 1.66539823077549
u26 t44 1.49020398507891
u12 t12 1.0572284977653
???
u3 t8 1.11535832979482
u45 t40 1.87986594362921
u16 t11 1.3895324756067
u48 t5 1.22851860237313
u37 t42 1.06563143187077
u23 t24 1.08298515938161
u14 t25 1.03316889198037
u20 t31 1.00345900448433
u7 t16 1.03164675562188
???
u49 t18 1.33374157910937
???
u21 t3 1.5610439899556
u1 t34 1.64005515427203
u2 t14 1.72757019342399
u22 t33 1.4533293630572
u43 t13 1.53121344776263
???
???
u18 t1 1.25736302890814
u4 t19 1.59888957371189
u5 t50 1.27171335536078
u32 t2 1.50059786597369
u34 t28 1.50606769849903
u24 t36 1.0202245664179
???
???
u33 t10 1.12279123895565
???
u42 t30 0.736311885085956
u41 t35 0.601735252993077
u39 t48 0.879343077178843
u27 t32 0.878541925604685
u19 t27 0.914123998212063
u46 t7 0.950716962419127
u17 t9 0.563930849401636
u30 t26 0.345827111266936
???
u35 t20 0.111885511004519

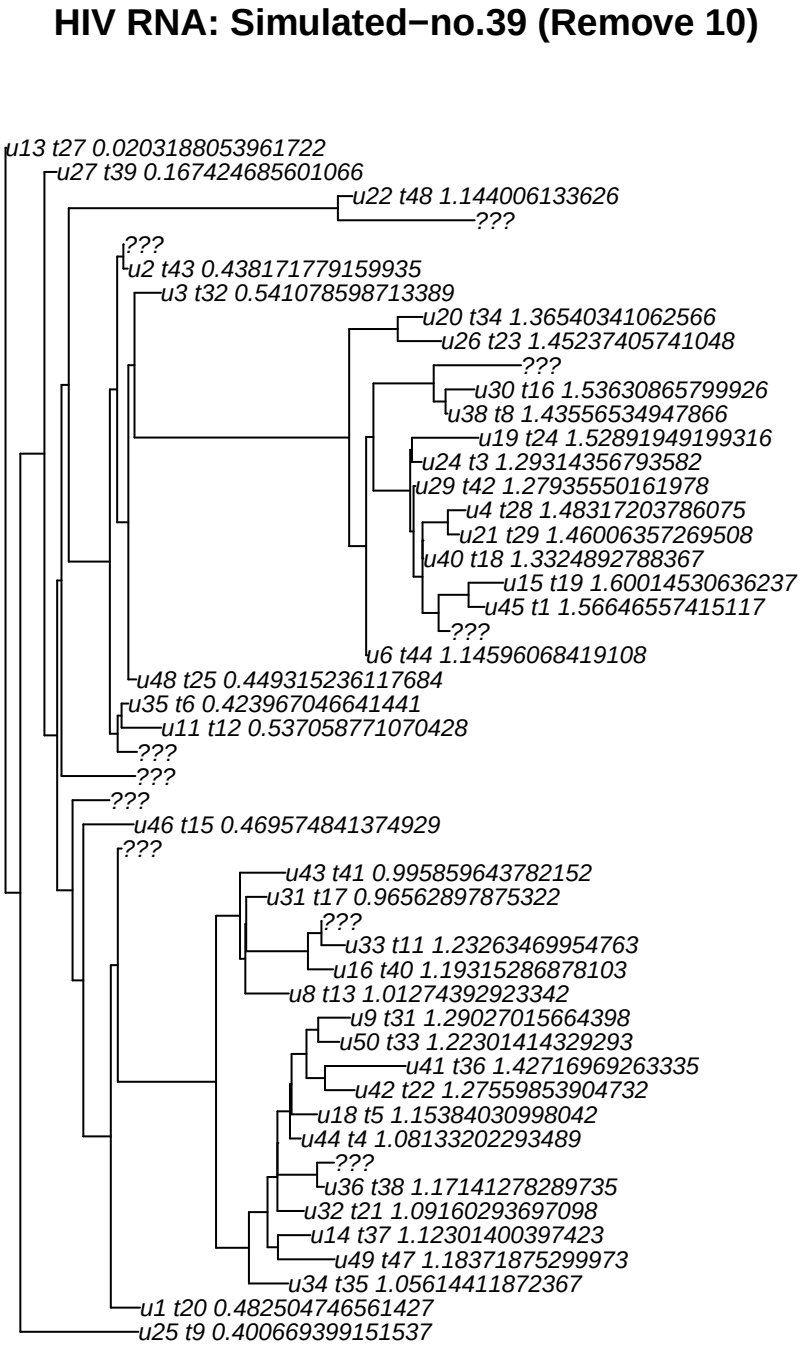
Time vs Distance

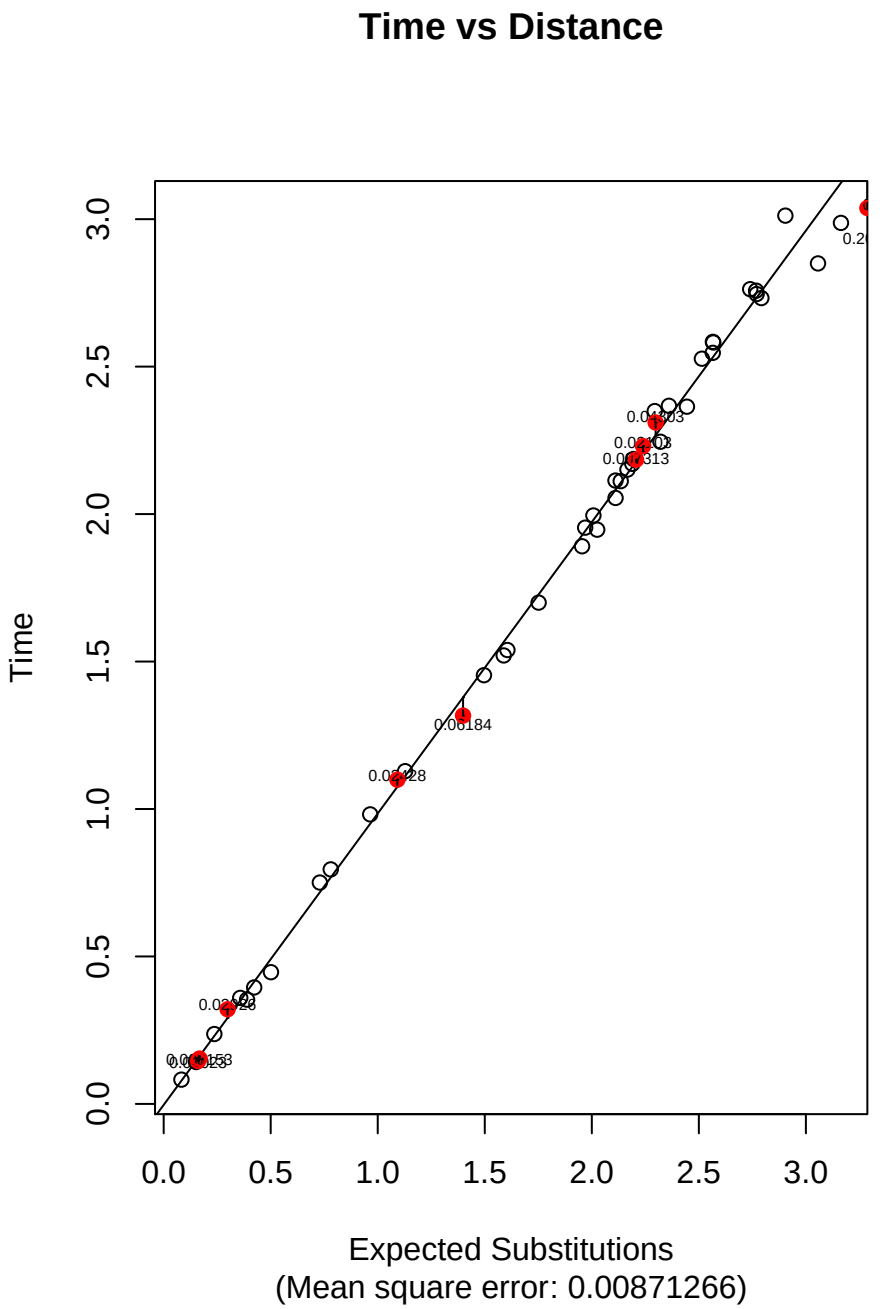


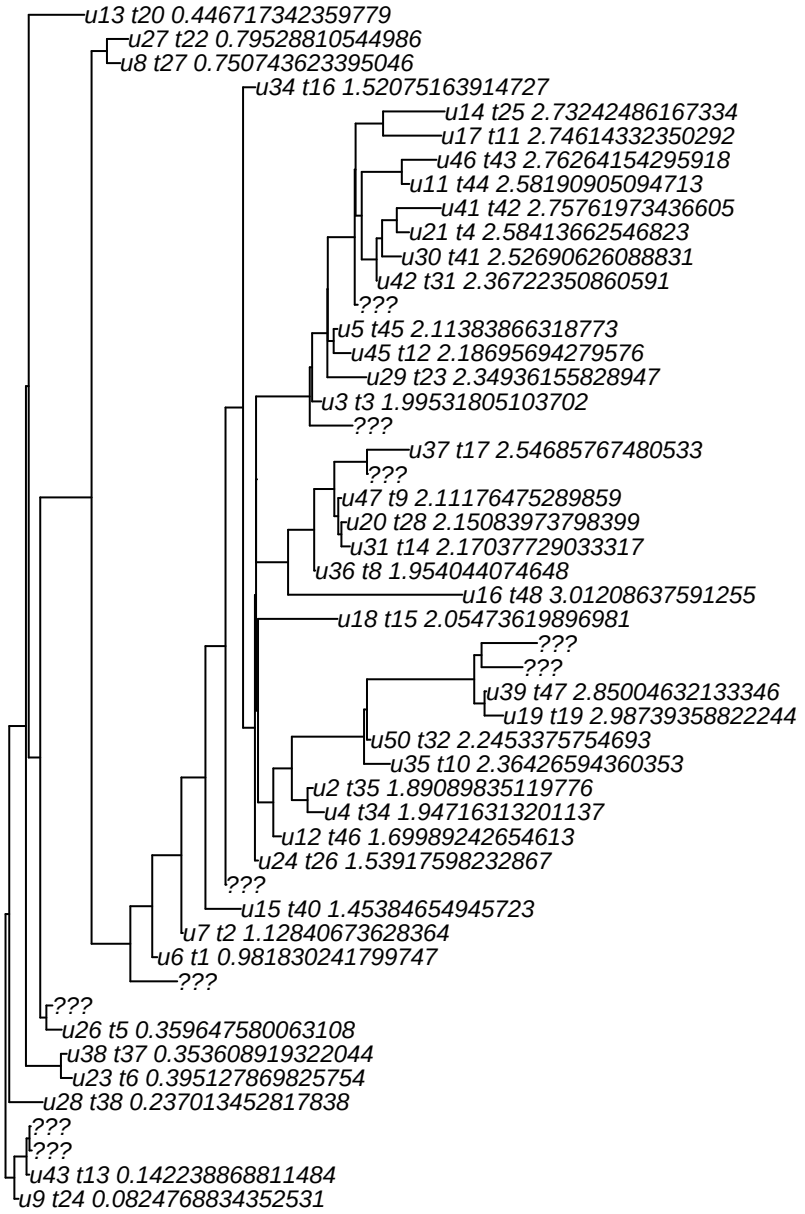
HIV RNA: Simulated−no.38 (Remove 10)

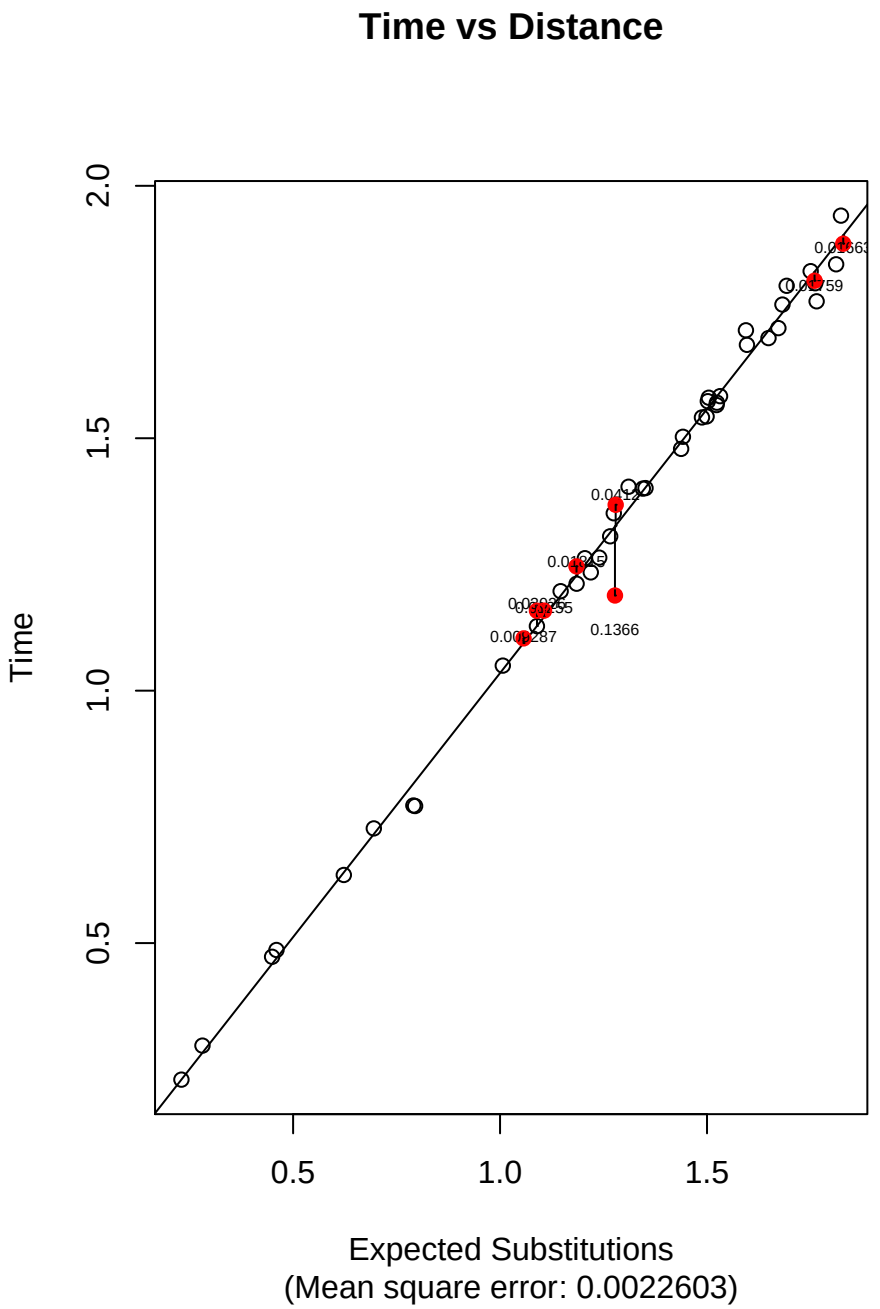


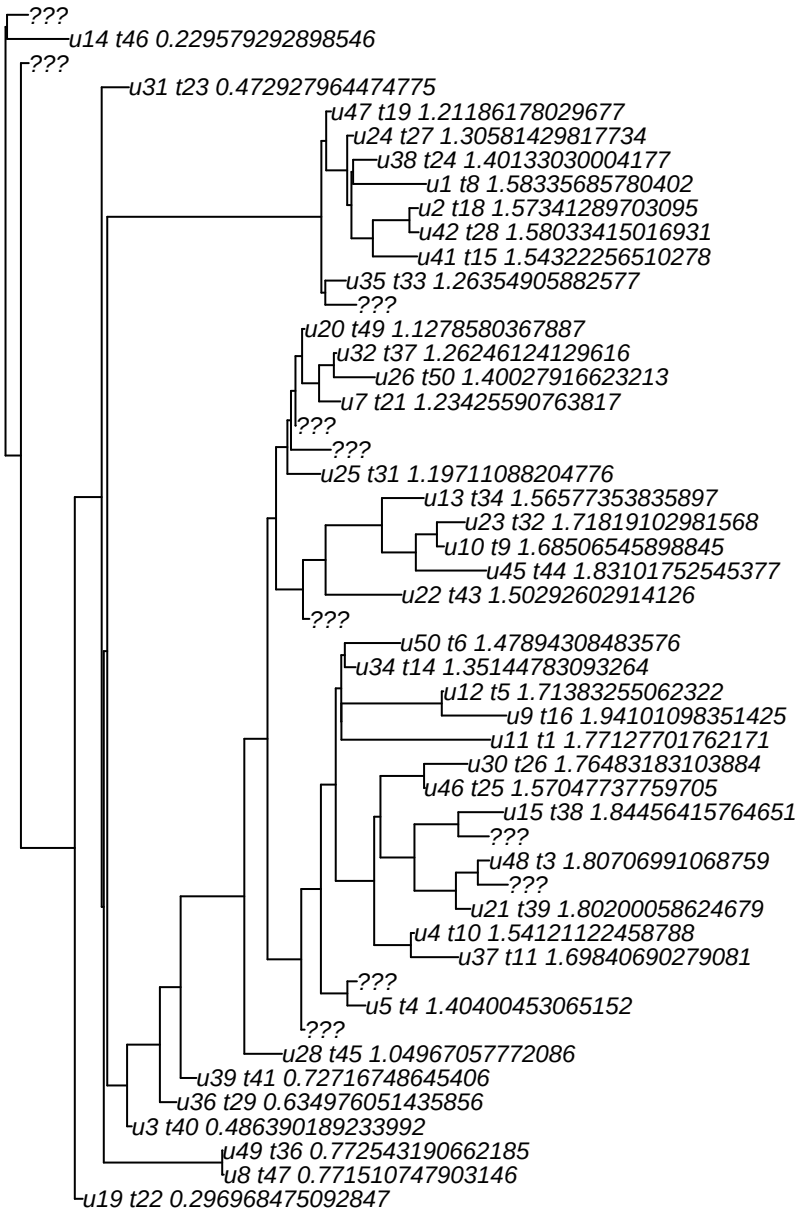

Time vs Distance
Time
0.0
0.5
1.0
1.5
0.05973
0.03064
Expected Substitutions
(Mean square error: 0.00239186)

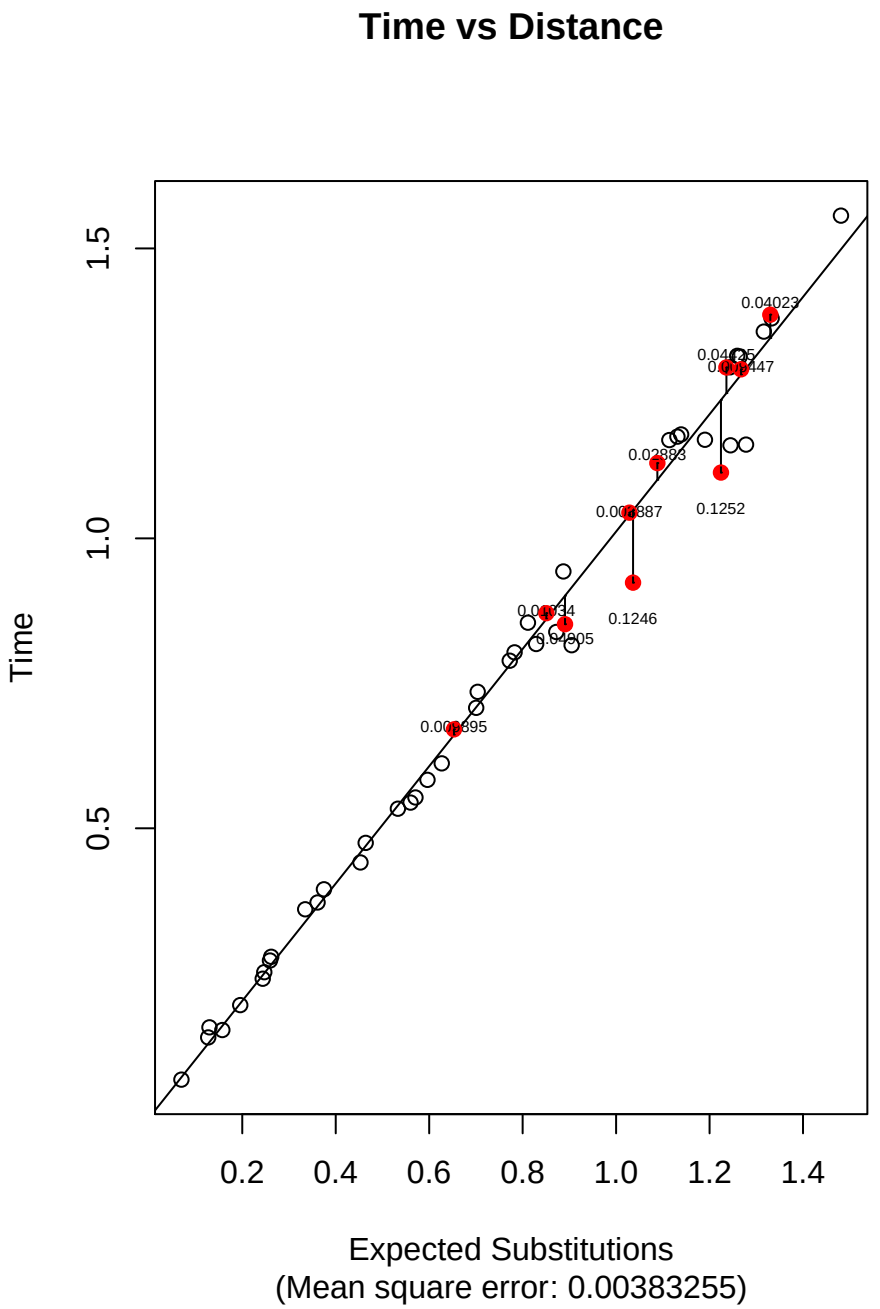

HIV RNA: Simulated−no.39 (Remove 10)
u13 t27 0.0203188053961722
u27 t39 0.167424685601066
u22 t48 1.144006133626
???
???
u2 t43 0.438171779159935
u3 t32 0.541078598713389
u20 t34 1.36540341062566
u26 t23 1.45237405741048
???
u30 t16 1.53630865799926
u38 t8 1.43556534947866
u19 t24 1.52891949199316
u24 t3 1.29314356793582
u29 t42 1.27935550161978
u4 t28 1.48317203786075
u21 t29 1.46006357269508
u40 t18 1.3324892788367
u15 t19 1.60014530636237
u45 t1 1.56646557415117
???
u6 t44 1.14596068419108
u48 t25 0.449315236117684
u35 t6 0.423967046641441
u11 t12 0.537058771070428
???
???
???
u46 t15 0.469574841374929
???
u43 t41 0.995859643782152
u31 t17 0.96562897875322
???
u33 t11 1.23263469954763
u16 t40 1.19315286878103
u8 t13 1.01274392923342
u9 t31 1.29027015664398
u50 t33 1.22301414329293
u41 t36 1.42716969263335
u42 t22 1.27559853904732
u18 t5 1.15384030998042
u44 t4 1.08133202293489
???
u36 t38 1.17141278289735
u32 t21 1.09160293697098
u14 t37 1.12301400397423
u49 t47 1.18371875299973
u34 t35 1.05614411872367
u1 t20 0.482504746561427
u25 t9 0.400669399151537

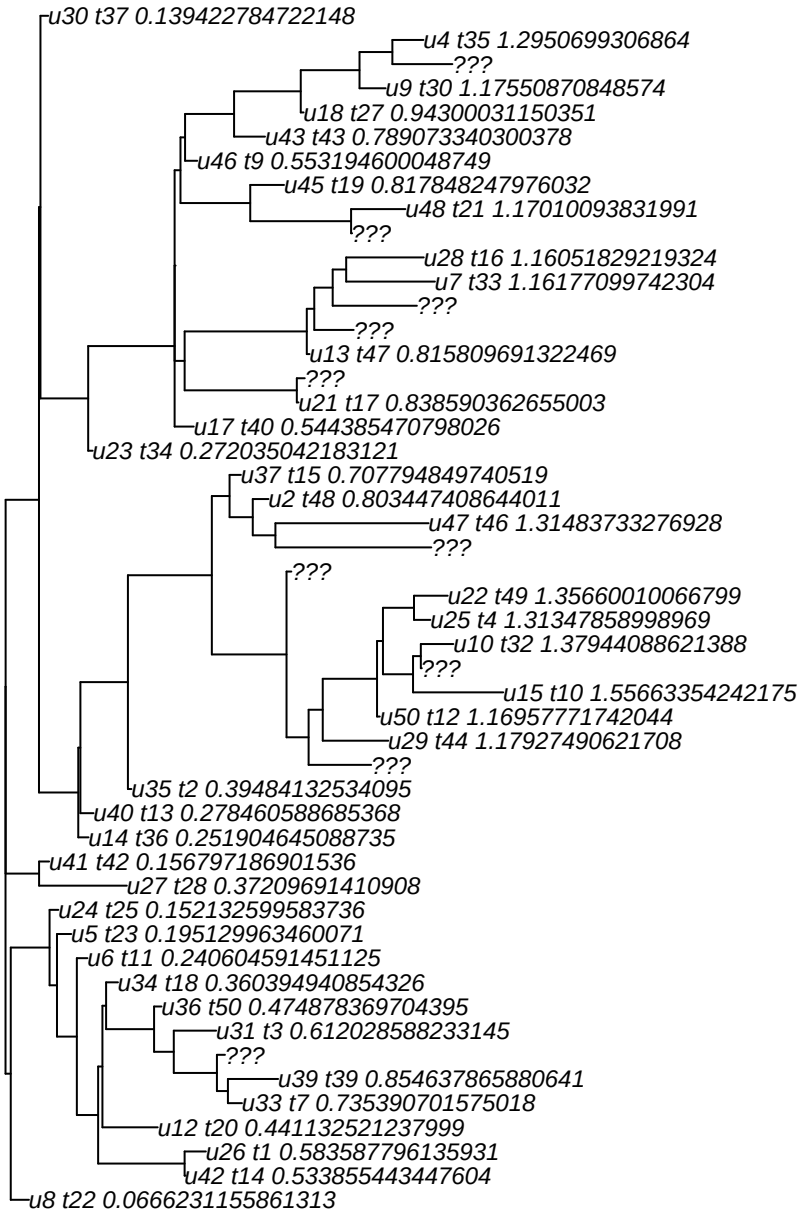

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.00184
Expected Substitutions
(Mean square error: 0.00871266)

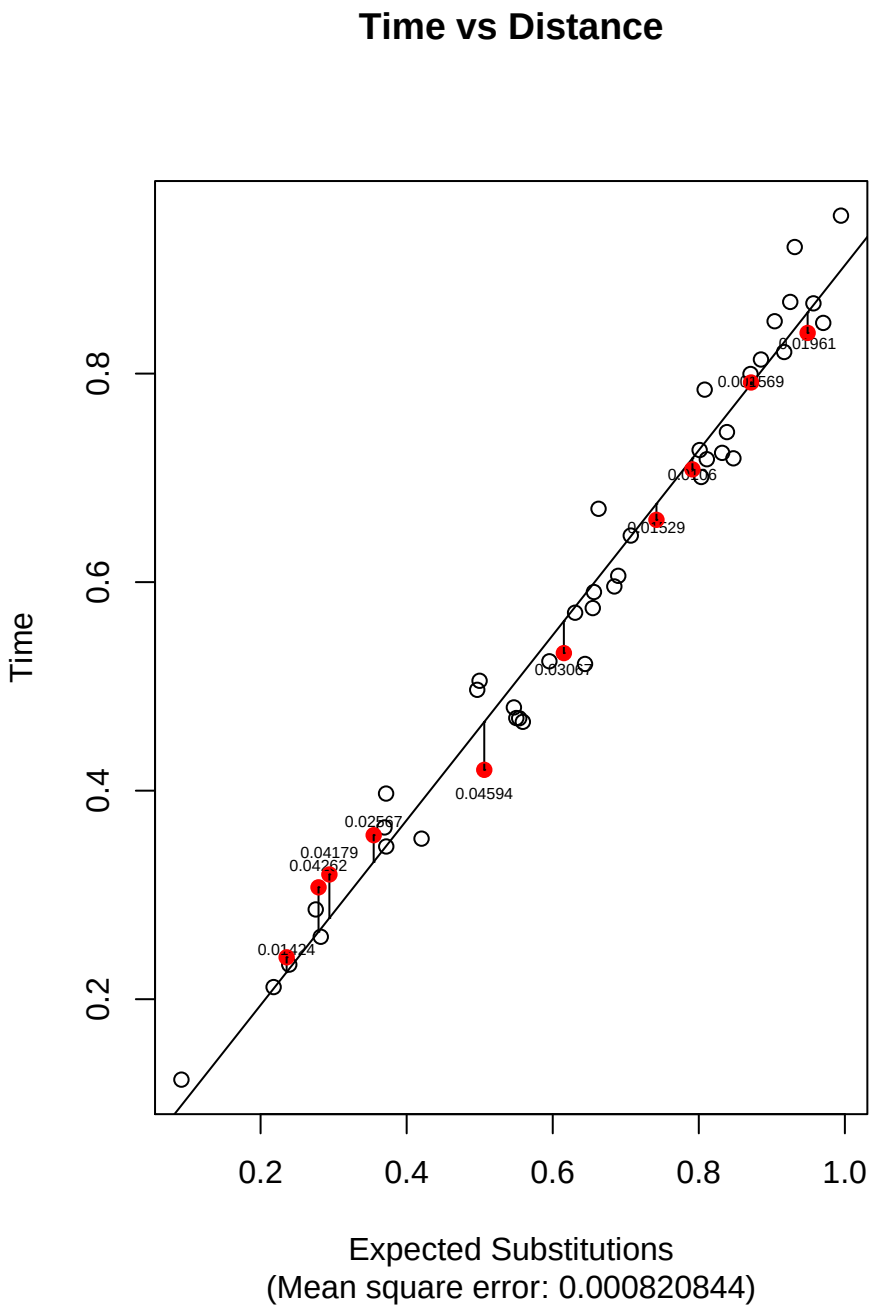

HIV RNA: Simulated−no.40 (Remove 10)
u13 t20 0.446717342359779
u27 t22 0.79528810544986
u8 t27 0.750743623395046
u34 t16 1.52075163914727
u14 t25 2.73242486167334
u17 t11 2.74614332350292
u46 t43 2.76264154295918
u11 t44 2.58190905094713
u41 t42 2.75761973436605
u21 t4 2.58413662546823
u30 t41 2.52690626088831
u42 t31 2.36722350860591
???
u5 t45 2.11383866318773
u45 t12 2.18695694279576
u29 t23 2.34936155828947
u3 t3 1.99531805103702
???
u37 t17 2.54685767480533
???
u47 t9 2.11176475289859
u20 t28 2.15083973798399
u31 t14 2.17037729033317
u36 t8 1.954044074648
u16 t48 3.01208637591255
u18 t15 2.05473619896981
???
???
u39 t47 2.85004632133346
u19 t19 2.98739358822244
u50 t32 2.2453375754693
u35 t10 2.36426594360353
u2 t35 1.89089835119776
u4 t34 1.94716313201137
u12 t46 1.69989242654613
u24 t26 1.53917598232867
???
u15 t40 1.45384654945723
u7 t2 1.12840673628364
u6 t1 0.981830241799747
???
???
u26 t5 0.359647580063108
u38 t37 0.353608919322044
u23 t6 0.395127869825754
u28 t38 0.237013452817838
???
???
u43 t13 0.142238868811484
u9 t24 0.0824768834352531

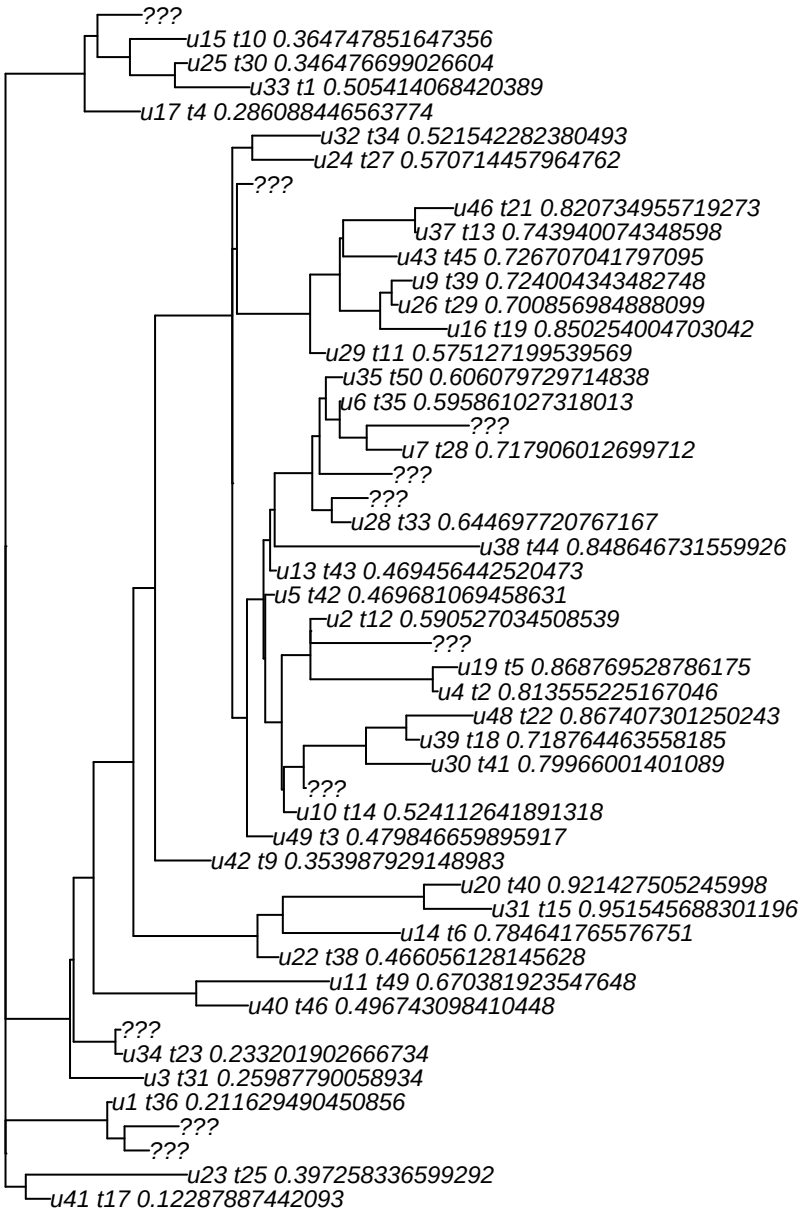

Time vs Distance
Time
2.0
1.5
1.0
0.5
0.5
1.0
1.5
0.1366
Expected Substitutions
(Mean square error: 0.0022603)

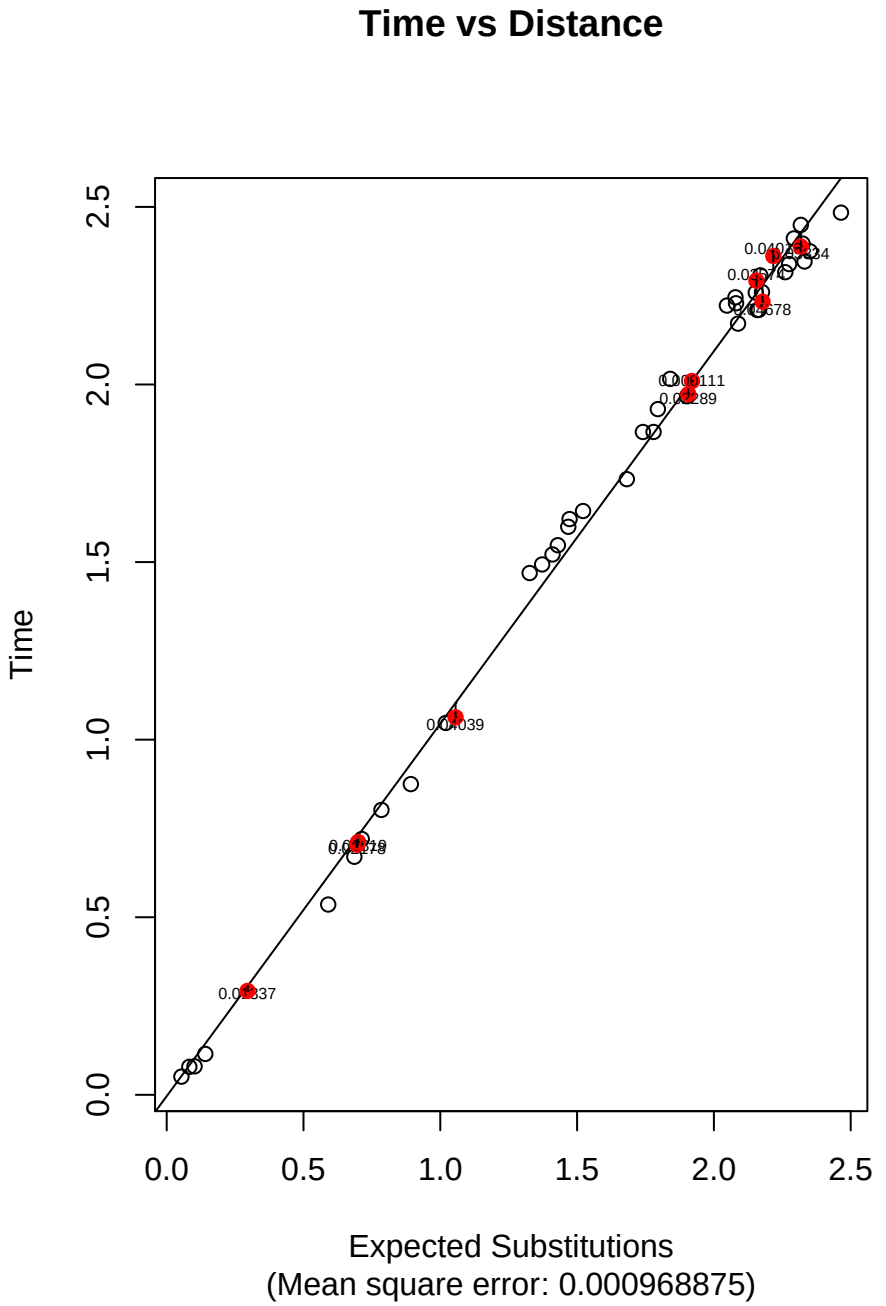

HIV RNA: Simulated−no.41 (Remove 10)
???
u14 t46 0.229579292898546
???
u31 t23 0.472927964474775
u47 t19 1.21186178029677
u24 t27 1.30581429817734
u38 t24 1.40133030004177
u1 t8 1.58335685780402
u2 t18 1.57341289703095
u42 t28 1.58033415016931
u41 t15 1.54322256510278
u35 t33 1.26354905882577
???
u20 t49 1.1278580367887
u32 t37 1.26246124129616
u26 t50 1.40027916623213
u7 t21 1.23425590763817
???
???
u25 t31 1.19711088204776
u13 t34 1.56577353835897
u23 t32 1.71819102981568
u10 t9 1.68506545898845
u45 t44 1.83101752545377
u22 t43 1.50292602914126
???
u50 t6 1.47894308483576
u34 t14 1.35144783093264
u12 t5 1.71383255062322
u9 t16 1.94101098351425
u11 t1 1.77127701762171
u30 t26 1.76483183103884
u46 t25 1.57047737759705
u15 t38 1.84456415764651
???
u48 t3 1.80706991068759
???
u21 t39 1.80200058624679
u4 t10 1.54121122458788
u37 t11 1.69840690279081
???
u5 t4 1.40400453065152
???
u28 t45 1.04967057772086
u39 t41 0.72716748645406
u36 t29 0.634976051435856
u3 t40 0.486390189233992
u49 t36 0.772543190662185
u8 t47 0.771510747903146
u19 t22 0.296968475092847

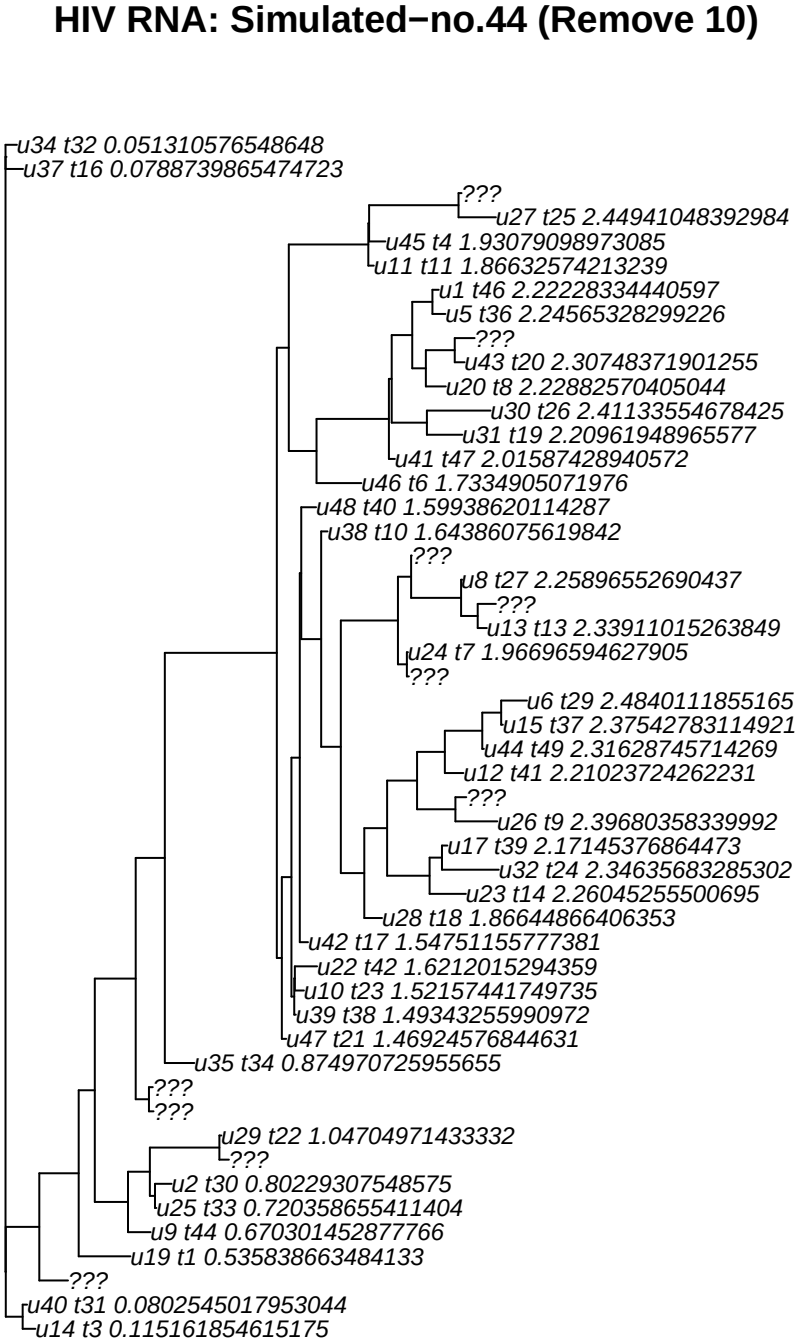

Time vs Distance
Time
0.5
1.0
1.5
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Expected Substitutions
(Mean square error: 0.00383255)
0.04023
0.02383
0.1252
0.1246

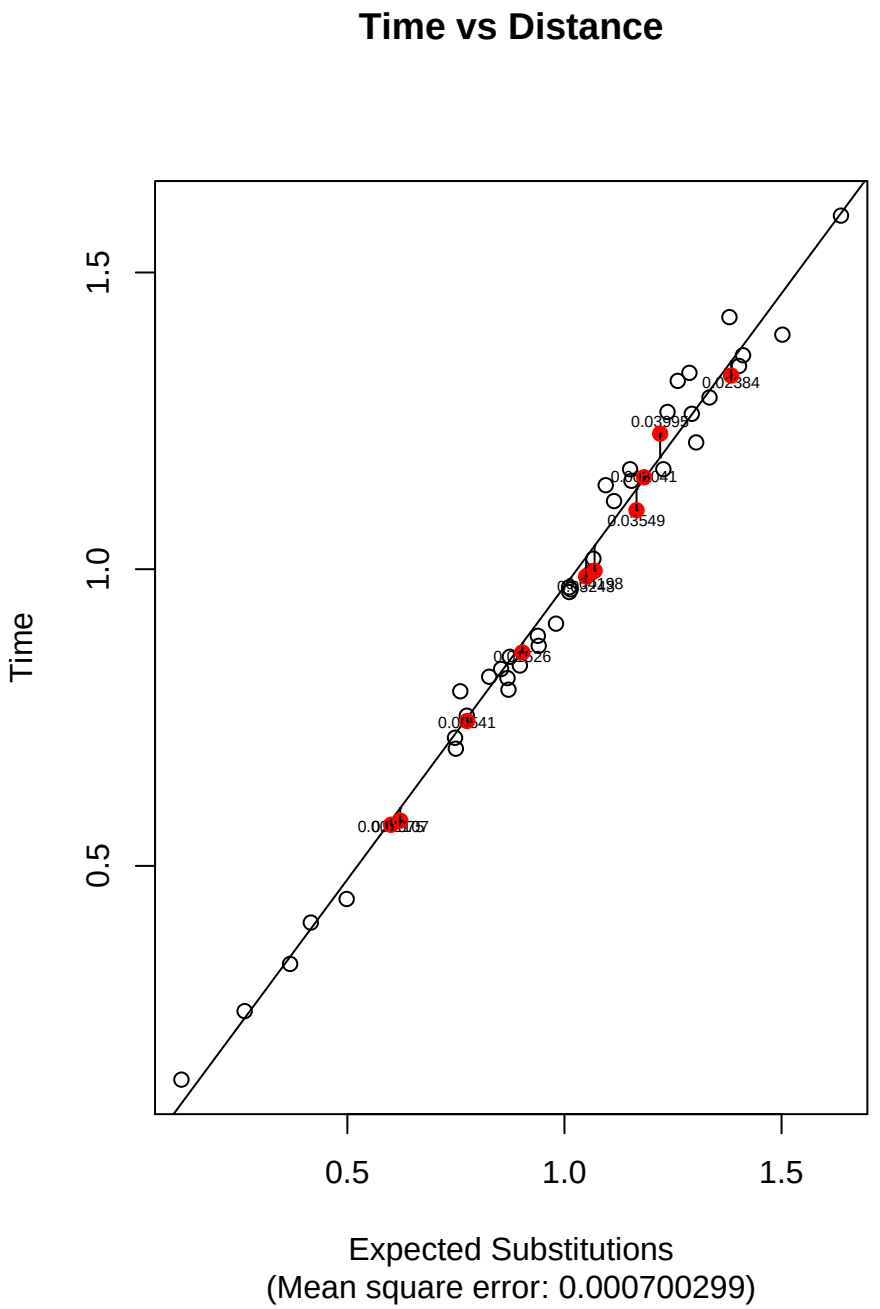

HIV RNA: Simulated−no.42 (Remove 10)
u30 t37 0.139422784722148
u4 t35 1.2950699306864
???
u9 t30 1.17550870848574
u18 t27 0.94300031150351
u43 t43 0.789073340300378
u46 t9 0.553194600048749
u45 t19 0.817848247976032
u48 t21 1.17010093831991
???
u28 t16 1.16051829219324
u7 t33 1.16177099742304
???
???
u13 t47 0.815809691322469
???
u21 t17 0.838590362655003
u17 t40 0.544385470798026
u23 t34 0.272035042183121
u37 t15 0.707794849740519
u2 t48 0.803447408644011
u47 t46 1.31483733276928
???
???
u22 t49 1.35660010066799
u25 t4 1.31347858998969
u10 t32 1.37944088621388
???
u15 t10 1.55663354242175
u50 t12 1.16957771742044
u29 t44 1.17927490621708
???
u35 t2 0.39484132534095
u40 t13 0.278460588685368
u14 t36 0.251904645088735
u41 t42 0.156797186901536
u27 t28 0.37209691410908
u24 t25 0.152132599583736
u5 t23 0.195129963460071
u6 t11 0.240604591451125
u34 t18 0.360394940854326
u36 t50 0.474878369704395
u31 t3 0.612028588233145
???
u39 t39 0.854637865880641
u33 t7 0.735390701575018
u12 t20 0.441132521237999
u26 t1 0.583587796135931
u42 t14 0.533855443447604
u8 t22 0.0666231155861313

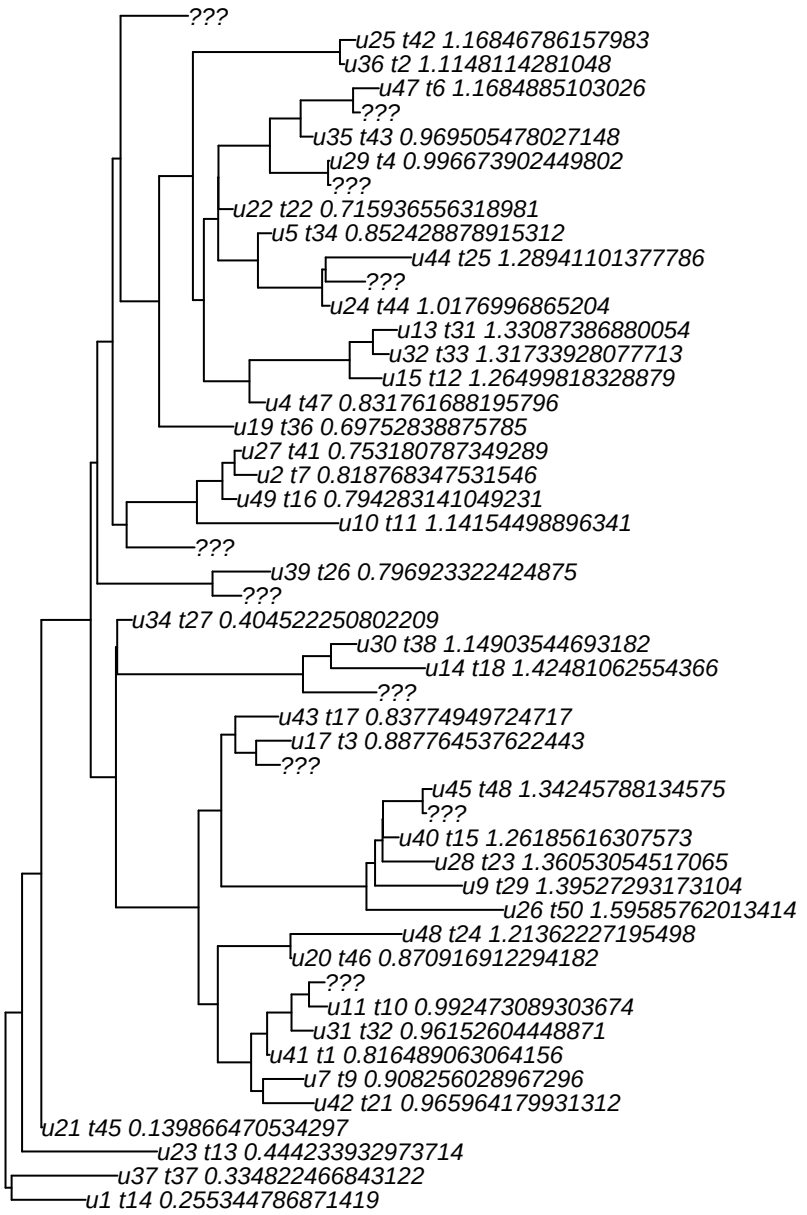

Time vs Distance
Time
0.2
0.4
0.6
0.8
0.2
0.4
0.6
0.8
1.0
Expected Substitutions
(Mean square error: 0.000820844)
0.01961
0.01529
0.03067
0.04594
0.02567
0.04179
0.04262
0.01424

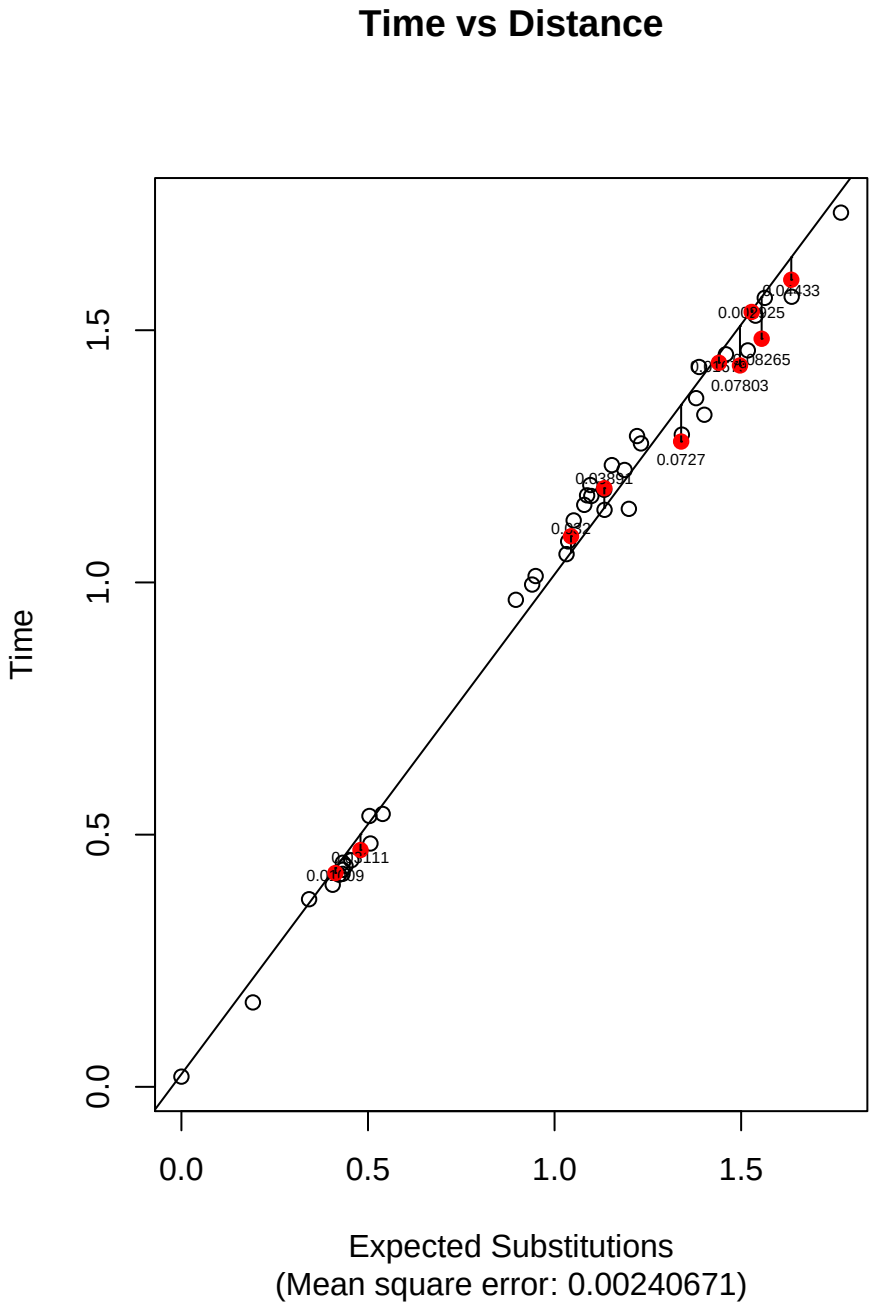

HIV RNA: Simulated−no.43 (Remove 10)
???
u15 t10 0.364747851647356
u25 t30 0.346476699026604
u33 t1 0.505414068420389
u17 t4 0.286088446563774
u32 t34 0.521542282380493
u24 t27 0.570714457964762
???
u46 t21 0.820734955719273
u37 t13 0.743940074348598
u43 t45 0.726707041797095
u9 t39 0.724004343482748
u26 t29 0.700856984888099
u16 t19 0.850254004703042
u29 t11 0.575127199539569
u35 t50 0.606079729714838
u6 t35 0.595861027318013
???
u7 t28 0.717906012699712
???
???
u28 t33 0.644697720767167
u38 t44 0.848646731559926
u13 t43 0.469456442520473
u5 t42 0.469681069458631
u2 t12 0.590527034508539
???
u19 t5 0.868769528786175
u4 t2 0.813555225167046
u48 t22 0.867407301250243
u39 t18 0.718764463558185
u30 t41 0.79966001401089
???
u10 t14 0.524112641891318
u49 t3 0.479846659895917
u42 t9 0.353987929148983
u20 t40 0.921427505245998
u31 t15 0.951545688301196
u14 t6 0.784641765576751
u22 t38 0.466056128145628
u11 t49 0.670381923547648
u40 t46 0.496743098410448
???
u34 t23 0.233201902666734
u3 t31 0.25987790058934
u1 t36 0.211629490450856
???
???
u23 t25 0.397258336599292
u41 t17 0.12287887442093

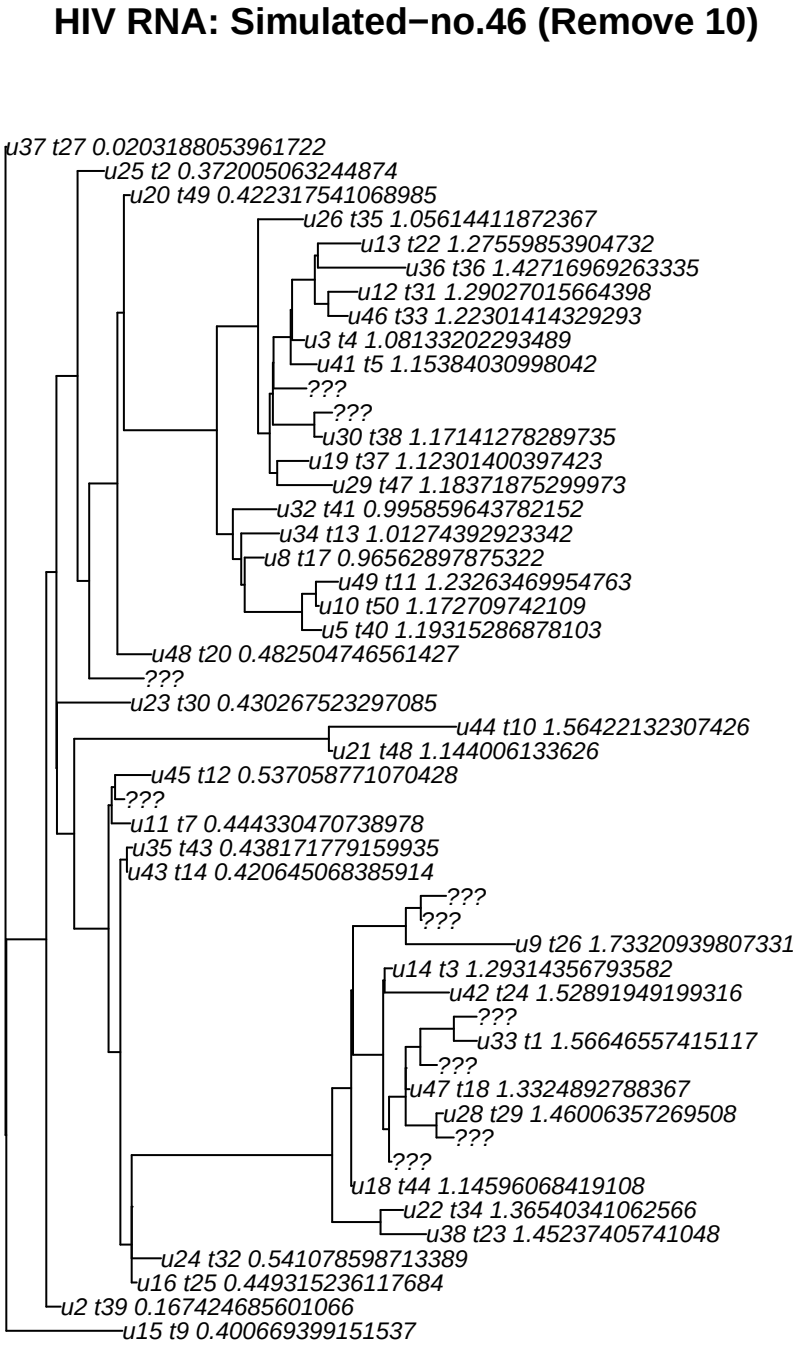

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
Expected Substitutions
(Mean square error: 0.000968875)

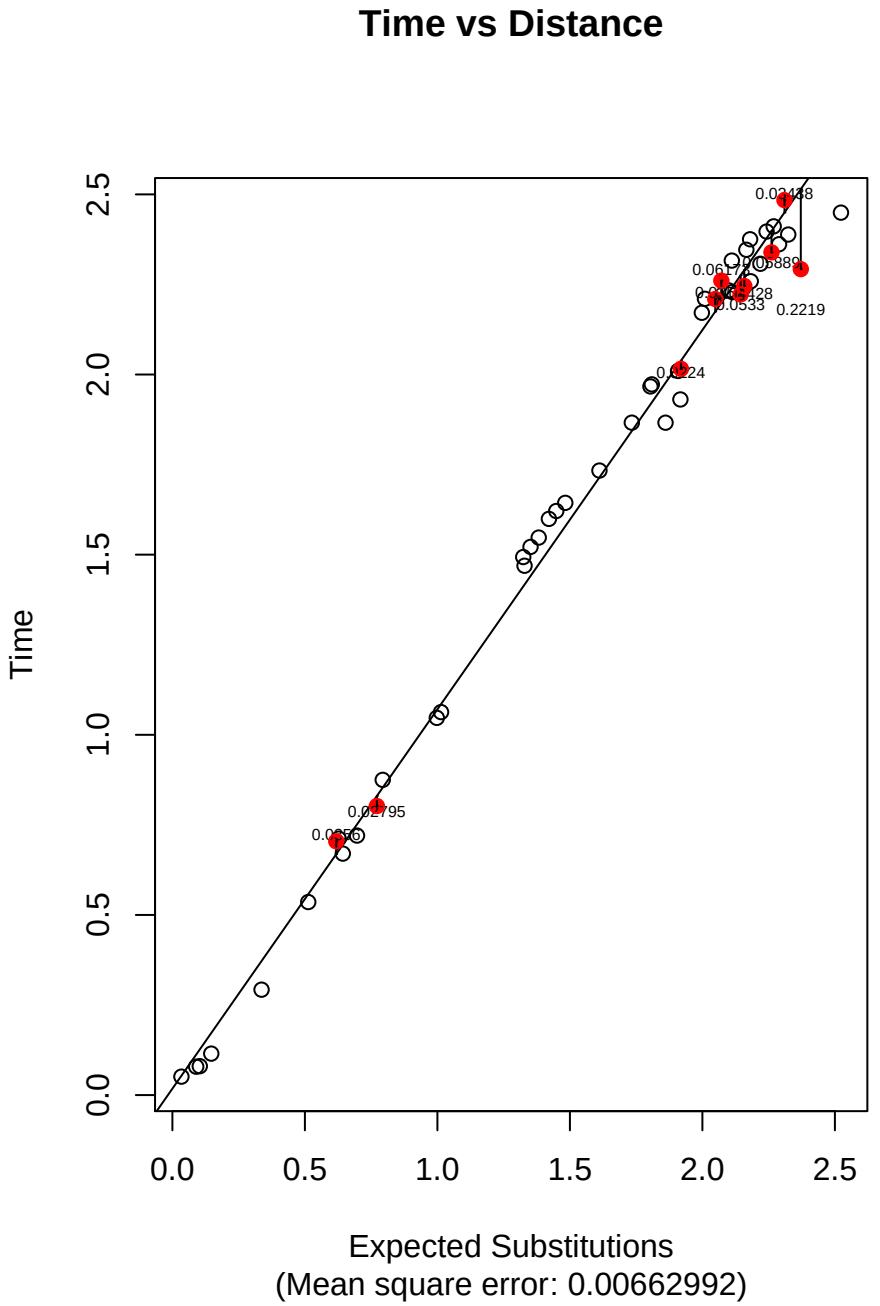

HIV RNA: Simulated−no.44 (Remove 10)
u34 t32 0.051310576548648
u37 t16 0.0788739865474723
???
u27 t25 2.44941048392984
u45 t4 1.93079098973085
u11 t11 1.86632574213239
u1 t46 2.22228334440597
u5 t36 2.24565328299226
???
u43 t20 2.30748371901255
u20 t8 2.22882570405044
u30 t26 2.41133554678425
u31 t19 2.20961948965577
u41 t47 2.01587428940572
u46 t6 1.7334905071976
u48 t40 1.59938620114287
u38 t10 1.64386075619842
???
u8 t27 2.25896552690437
???
u13 t13 2.33911015263849
u24 t7 1.96696594627905
???
u6 t29 2.4840111855165
u15 t37 2.37542783114921
u44 t49 2.31628745714269
u12 t41 2.21023724262231
???
u26 t9 2.39680358339992
u17 t39 2.17145376864473
u32 t24 2.34635683285302
u23 t14 2.26045255500695
u28 t18 1.86644866406353
u42 t17 1.54751155777381
u22 t42 1.6212015294359
u10 t23 1.52157441749735
u39 t38 1.49343255990972
u47 t21 1.46924576844631
u35 t34 0.874970725955655
???
???
u29 t22 1.04704971433332
???
u2 t30 0.80229307548575
u25 t33 0.720358655411404
u9 t44 0.670301452877766
u19 t1 0.535838663484133
???
u40 t31 0.0802545017953044
u14 t3 0.115161854615175

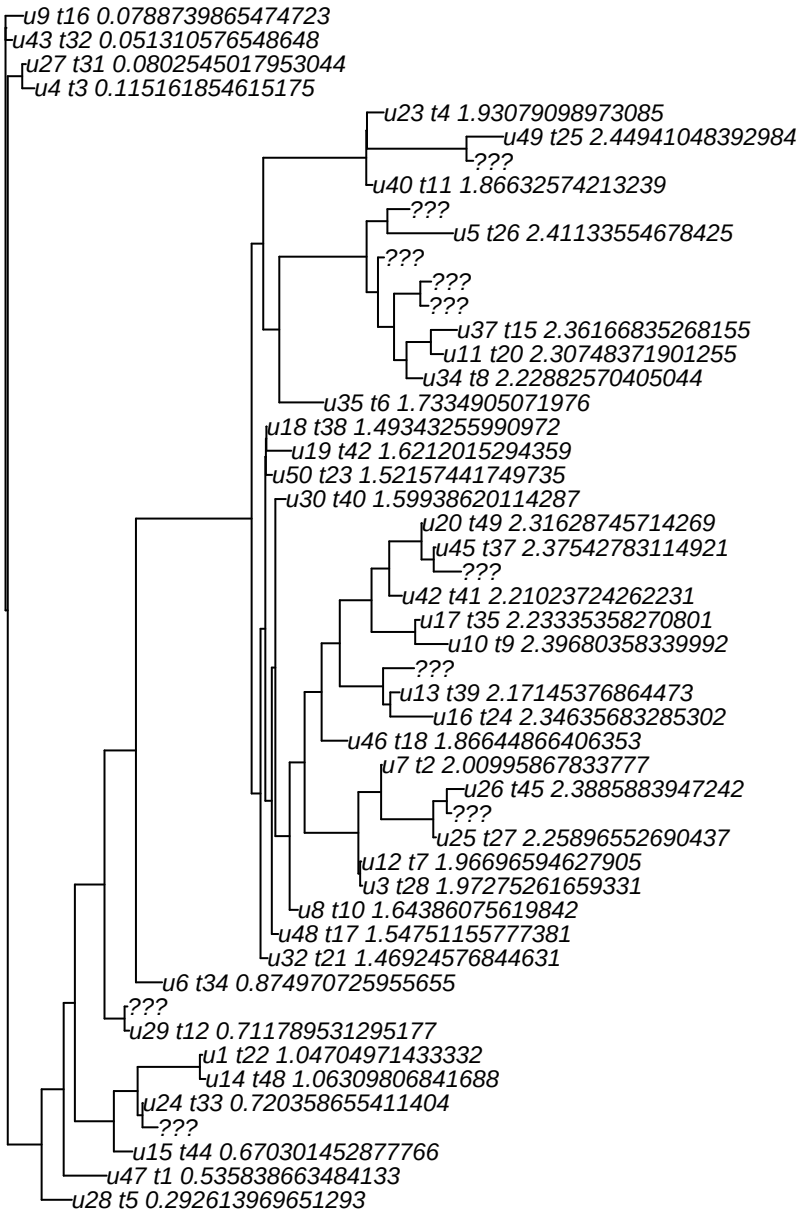

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
0.02384
0.03995
0.03549
0.03541
Expected Substitutions
(Mean square error: 0.000700299)

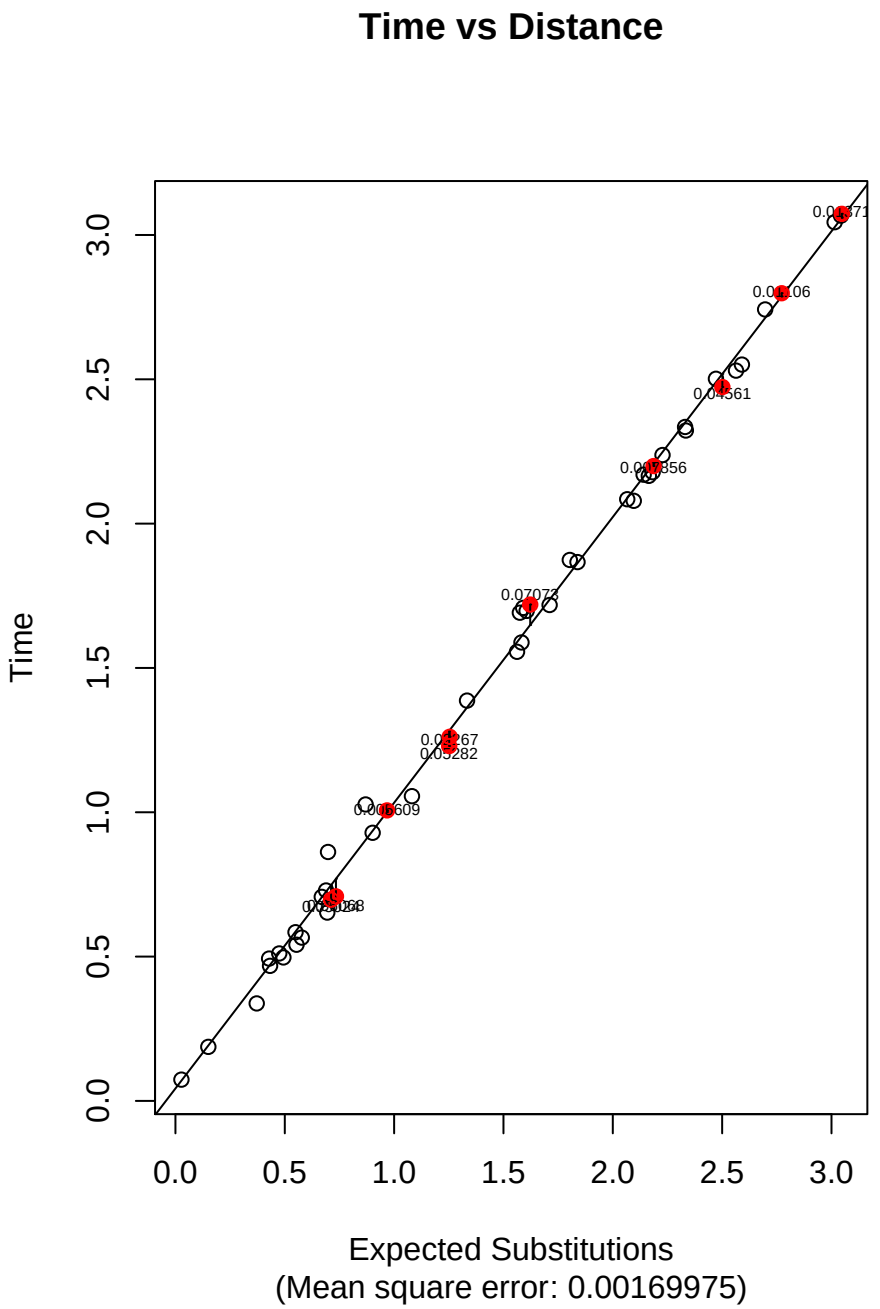

HIV RNA: Simulated−no.45 (Remove 10)
???
u25 t42 1.16846786157983
u36 t2 1.1148114281048
u47 t6 1.1684885103026
???
u35 t43 0.969505478027148
u29 t4 0.996673902449802
???
u22 t22 0.715936556318981
u5 t34 0.852428878915312
u44 t25 1.28941101377786
???
u24 t44 1.0176996865204
u13 t31 1.33087386880054
u32 t33 1.31733928077713
u15 t12 1.26499818328879
u4 t47 0.831761688195796
u19 t36 0.69752838875785
u27 t41 0.753180787349289
u2 t7 0.818768347531546
u49 t16 0.794283141049231
u10 t11 1.14154498896341
???
u39 t26 0.796923322424875
???
u34 t27 0.404522250802209
u30 t38 1.14903544693182
u14 t18 1.42481062554366
???
u43 t17 0.83774949724717
u17 t3 0.887764537622443
???
u45 t48 1.34245788134575
???
u40 t15 1.26185616307573
u28 t23 1.36053054517065
u9 t29 1.39527293173104
u26 t50 1.59585762013414
u48 t24 1.21362227195498
u20 t46 0.870916912294182
???
u11 t10 0.992473089303674
u31 t32 0.96152604448871
u41 t1 0.816489063064156
u7 t9 0.908256028967296
u42 t21 0.965964179931312
u21 t45 0.139866470534297
u23 t13 0.444233932973714
u37 t37 0.334822466843122
u1 t14 0.255344786871419

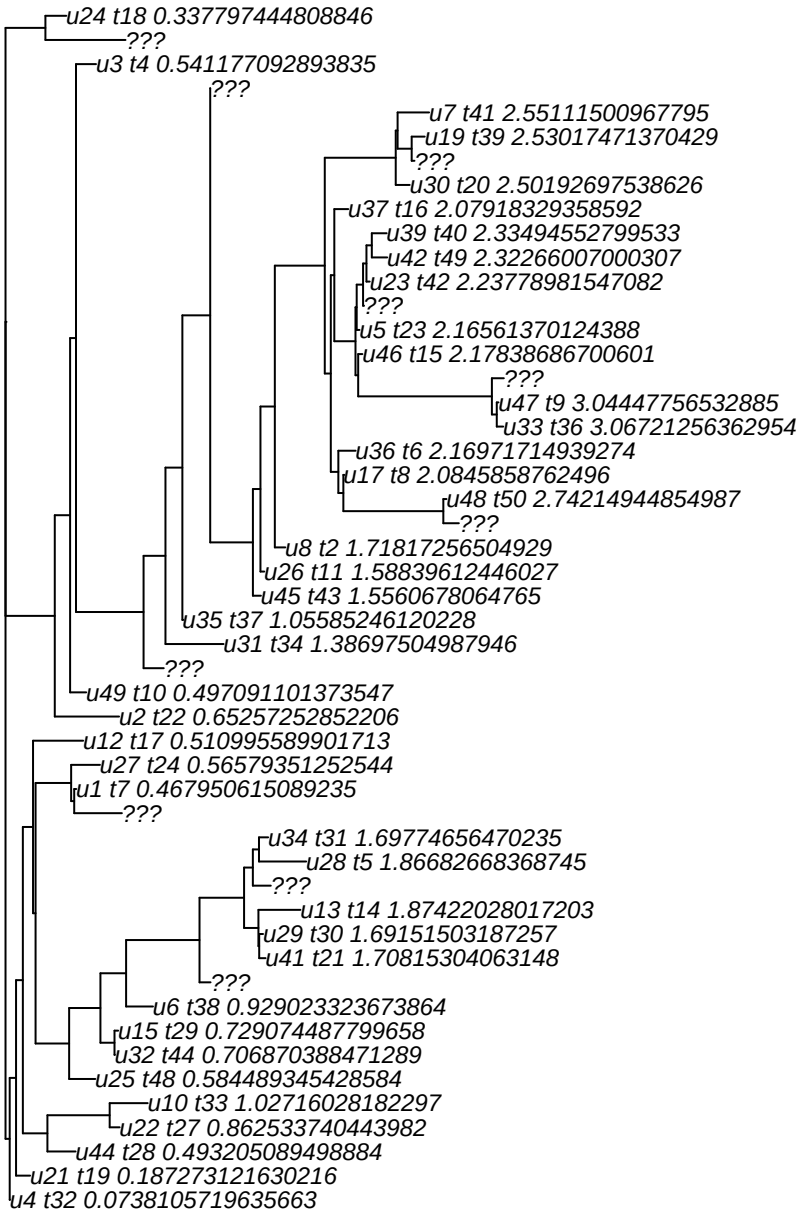

Time vs Distance
Time
0.0
0.5
1.0
1.5
0.0
0.5
1.0
1.5
0.07803
0.0727
Expected Substitutions
(Mean square error: 0.00240671)

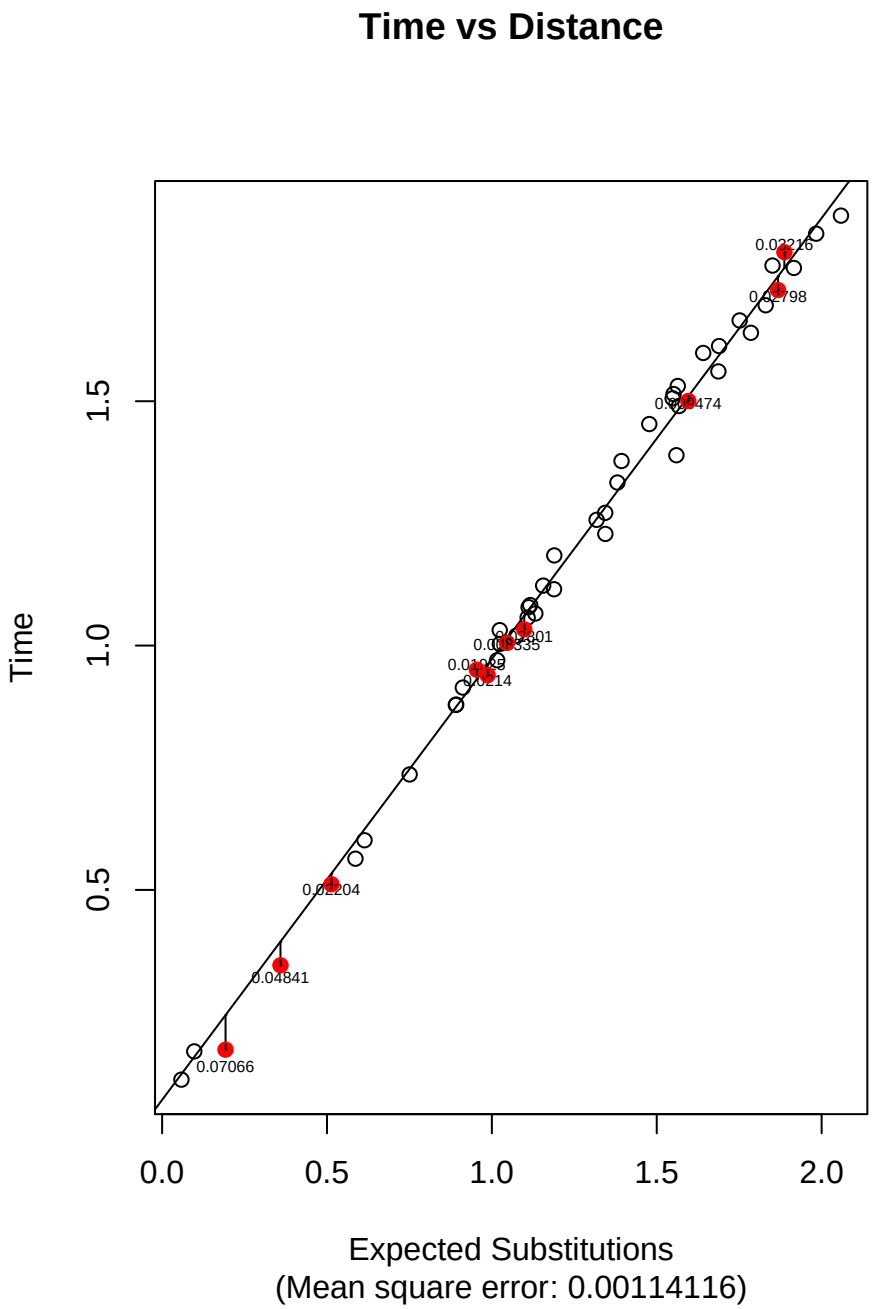

HIV RNA: Simulated−no.46 (Remove 10)
u37 t27 0.0203188053961722
u25 t2 0.372005063244874
u20 t49 0.422317541068985
u26 t35 1.05614411872367
u13 t22 1.27559853904732
u36 t36 1.42716969263335
u12 t31 1.29027015664398
u46 t33 1.22301414329293
u3 t4 1.08133202293489
u41 t5 1.15384030998042
???
???
u30 t38 1.17141278289735
u19 t37 1.12301400397423
u29 t47 1.18371875299973
u32 t41 0.995859643782152
u34 t13 1.01274392923342
u8 t17 0.96562897875322
u49 t11 1.23263469954763
u10 t50 1.172709742109
u5 t40 1.19315286878103
u48 t20 0.482504746561427
???
u23 t30 0.430267523297085
u44 t10 1.56422132307426
u21 t48 1.144006133626
u45 t12 0.537058771070428
???
u11 t7 0.444330470738978
u35 t43 0.438171779159935
u43 t14 0.420645068385914
???
???
u9 t26 1.73320939807331
u14 t3 1.29314356793582
u42 t24 1.52891949199316
???
u33 t1 1.56646557415117
???
u47 t18 1.3324892788367
u28 t29 1.46006357269508
???
???
u18 t44 1.14596068419108
u22 t34 1.36540341062566
u38 t23 1.45237405741048
u24 t32 0.541078598713389
u16 t25 0.449315236117684
u2 t39 0.167424685601066
u15 t9 0.400669399151537

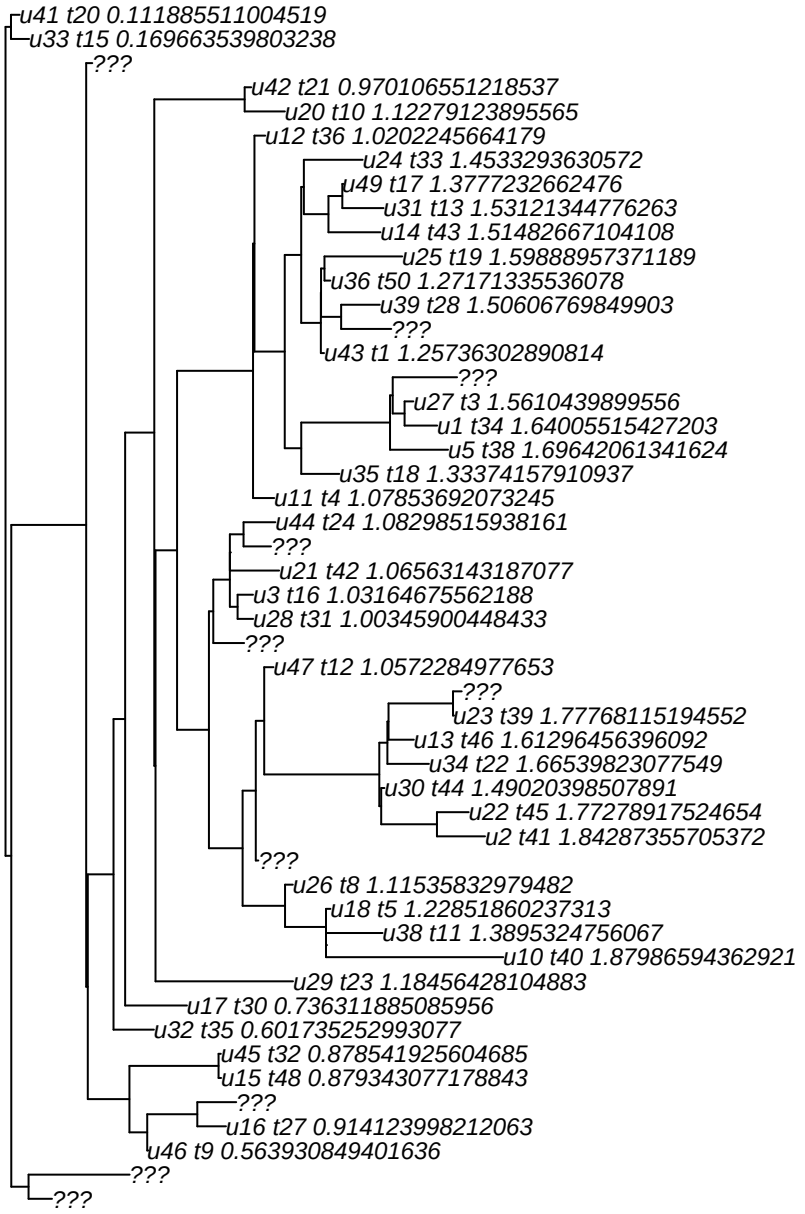

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00662992)
0.0
0.5
1.0
1.5
2.0
2.5
0.2219
0.0533
0.02795

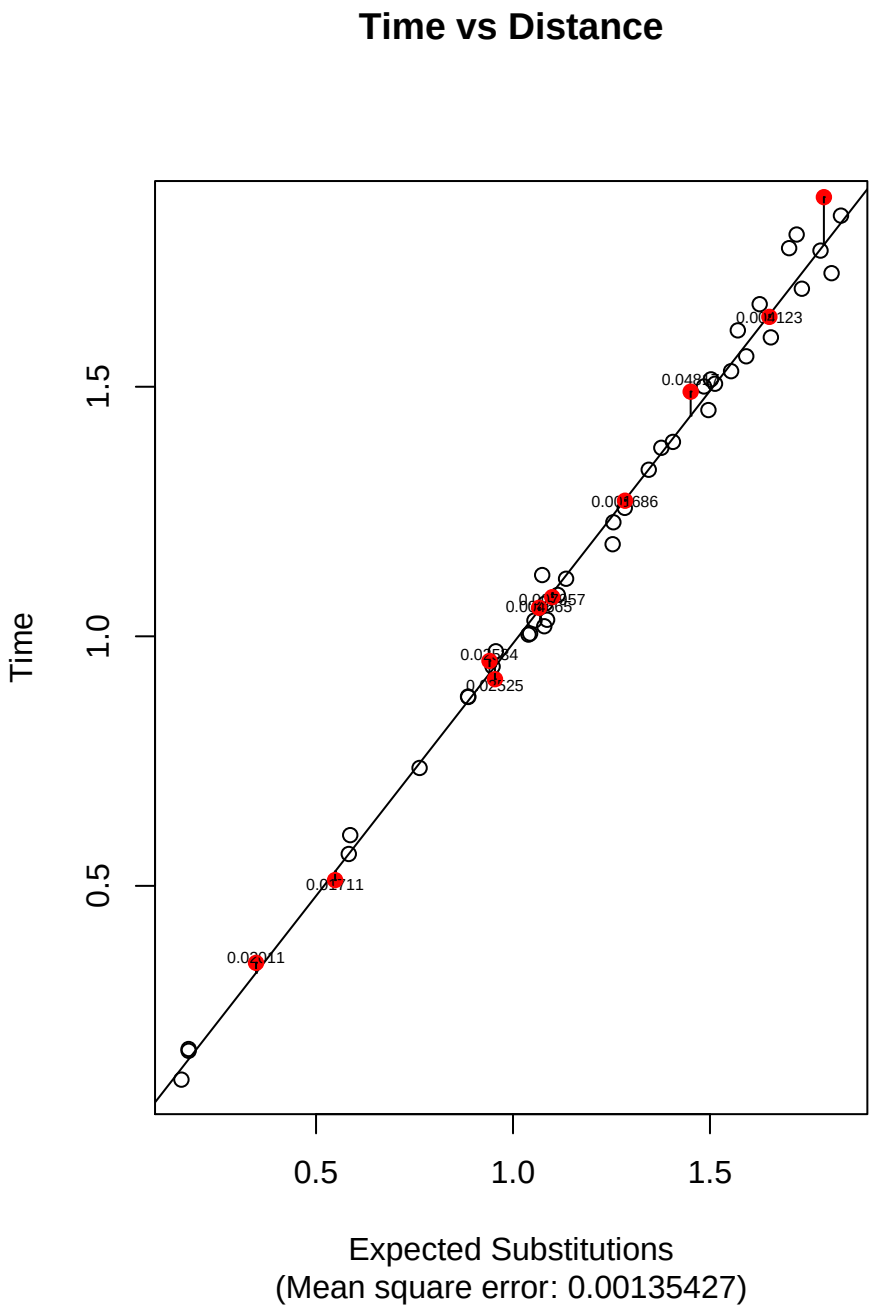

HIV RNA: Simulated−no.47 (Remove 10)
u9 t16 0.0788739865474723
u43 t32 0.051310576548648
u27 t31 0.0802545017953044
u4 t3 0.115161854615175
u23 t4 1.93079098973085
u49 t25 2.44941048392984
???
u40 t11 1.86632574213239
???
u5 t26 2.41133554678425
???
???
???
u37 t15 2.36166835268155
u11 t20 2.30748371901255
u34 t8 2.22882570405044
u35 t6 1.7334905071976
u18 t38 1.49343255990972
u19 t42 1.6212015294359
u50 t23 1.52157441749735
u30 t40 1.59938620114287
u20 t49 2.31628745714269
u45 t37 2.37542783114921
???
u42 t41 2.21023724262231
u17 t35 2.23335358270801
u10 t9 2.39680358339992
???
u13 t39 2.17145376864473
u16 t24 2.34635683285302
u46 t18 1.86644866406353
u7 t2 2.00995867833777
u26 t45 2.3885883947242
???
u25 t27 2.25896552690437
u12 t7 1.96696594627905
u3 t28 1.97275261659331
u8 t10 1.64386075619842
u48 t17 1.54751155777381
u32 t21 1.46924576844631
u6 t34 0.874970725955655
???
u29 t12 0.711789531295177
u1 t22 1.04704971433332
u14 t48 1.06309806841688
u24 t33 0.720358655411404
???
u15 t44 0.670301452877766
u47 t1 0.535838663484133
u28 t5 0.292613969651293

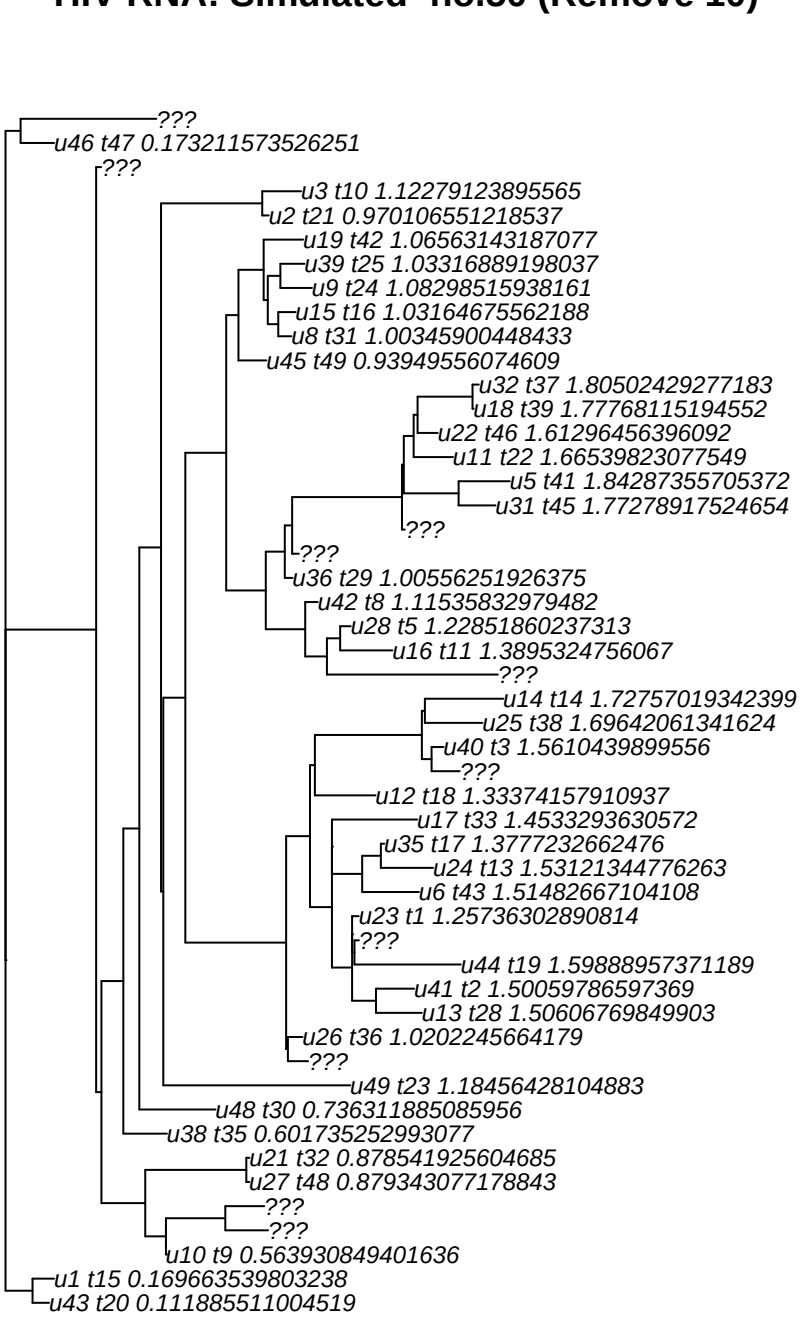

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00169975)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.07073
0.05282

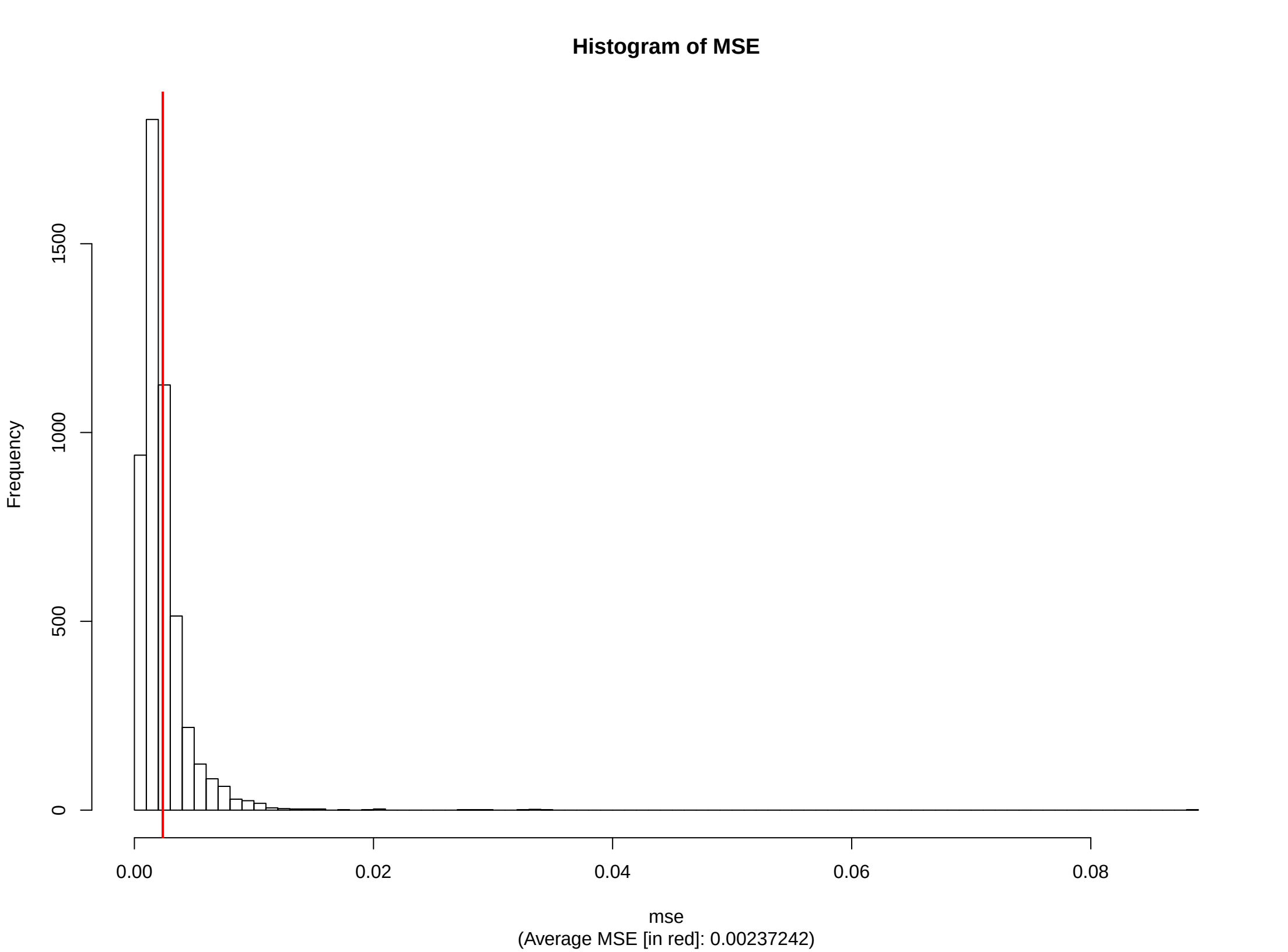

HIV RNA: Simulated−no.48 (Remove 10)
u24 t18 0.337797444808846
???
u3 t4 0.541177092893835
???
u7 t41 2.55111500967795
u19 t39 2.53017471370429
???
u30 t20 2.50192697538626
u37 t16 2.07918329358592
u39 t40 2.33494552799533
u42 t49 2.32266007000307
u23 t42 2.23778981547082
???
u5 t23 2.16561370124388
u46 t15 2.17838686700601
???
u47 t9 3.04447756532885
u33 t36 3.06721256362954
u36 t6 2.16971714939274
u17 t8 2.0845858762496
u48 t50 2.74214944854987
???
u8 t2 1.71817256504929
u26 t11 1.58839612446027
u45 t43 1.5560678064765
u35 t37 1.05585246120228
u31 t34 1.38697504987946
???
u49 t10 0.497091101373547
u2 t22 0.65257252852206
u12 t17 0.510995589901713
u27 t24 0.56579351252544
u1 t7 0.467950615089235
???
u34 t31 1.69774656470235
u28 t5 1.86682668368745
???
u13 t14 1.87422028017203
u29 t30 1.69151503187257
u41 t21 1.70815304063148
???
u6 t38 0.929023323673864
u15 t29 0.729074487799658
u32 t44 0.706870388471289
u25 t48 0.584489345428584
u10 t33 1.02716028182297
u22 t27 0.862533740443982
u44 t28 0.493205089498884
u21 t19 0.187273121630216
u4 t32 0.0738105719635663


Time vs Distance
Time
0.5
1.0
1.5
0.0
0.5
1.0
1.5
2.0
0.07066
0.04841
0.02216
0.01798
Expected Substitutions
(Mean square error: 0.00114116)


HIV RNA: Simulated−no.49 (Remove 10)
u41 t20 0.111885511004519
u33 t15 0.169663539803238
???
u42 t21 0.970106551218537
u20 t10 1.12279123895565
u12 t36 1.0202245664179
u24 t33 1.4533293630572
u49 t17 1.3777232662476
u31 t13 1.53121344776263
u14 t43 1.51482667104108
u25 t19 1.59888957371189
u36 t50 1.27171335536078
u39 t28 1.50606769849903
???
u43 t1 1.25736302890814
???
u27 t3 1.5610439899556
u1 t34 1.64005515427203
u5 t38 1.69642061341624
u35 t18 1.33374157910937
u11 t4 1.07853692073245
u44 t24 1.08298515938161
???
u21 t42 1.06563143187077
u3 t16 1.03164675562188
u28 t31 1.00345900448433
???
u47 t12 1.0572284977653
???
u23 t39 1.77768115194552
u13 t46 1.61296456396092
u34 t22 1.66539823077549
u30 t44 1.49020398507891
u22 t45 1.77278917524654
u2 t41 1.84287355705372
???
u26 t8 1.11535832979482
u18 t5 1.22851860237313
u38 t11 1.3895324756067
u10 t40 1.87986594362921
u29 t23 1.18456428104883
u17 t30 0.736311885085956
u32 t35 0.601735252993077
u45 t32 0.878541925604685
u15 t48 0.879343077178843
???
u16 t27 0.914123998212063
u46 t9 0.563930849401636
???
???


Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00135427)


HIV RNA: Simulated−no.50 (Remove 10)
???
u46 t47 0.173211573526251
???
u3 t10 1.12279123895565
u2 t21 0.970106551218537
u19 t42 1.06563143187077
u39 t25 1.03316889198037
u9 t24 1.08298515938161
u15 t16 1.03164675562188
u8 t31 1.00345900448433
u45 t49 0.93949556074609
u32 t37 1.80502429277183
u18 t39 1.77768115194552
u22 t46 1.61296456396092
u11 t22 1.66539823077549
u5 t41 1.84287355705372
u31 t45 1.77278917524654
???
???
u36 t29 1.00556251926375
u42 t8 1.11535832979482
u28 t5 1.22851860237313
u16 t11 1.3895324756067
???
u14 t14 1.72757019342399
u25 t38 1.69642061341624
u40 t3 1.5610439899556
???
u12 t18 1.33374157910937
u17 t33 1.4533293630572
u35 t17 1.3777232662476
u24 t13 1.53121344776263
u6 t43 1.51482667104108
u23 t1 1.25736302890814
???
u44 t19 1.59888957371189
u41 t2 1.50059786597369
u13 t28 1.50606769849903
u26 t36 1.0202245664179
???
u49 t23 1.18456428104883
u48 t30 0.736311885085956
u38 t35 0.601735252993077
u21 t32 0.878541925604685
u27 t48 0.879343077178843
???
???
u10 t9 0.563930849401636
u1 t15 0.169663539803238
u43 t20 0.111885511004519


Histogram of MSE
Frequency
0
500
1000
1500
0.00
0.02
0.04
0.06
0.08
mse
(Average MSE [in red]: 0.00237242)