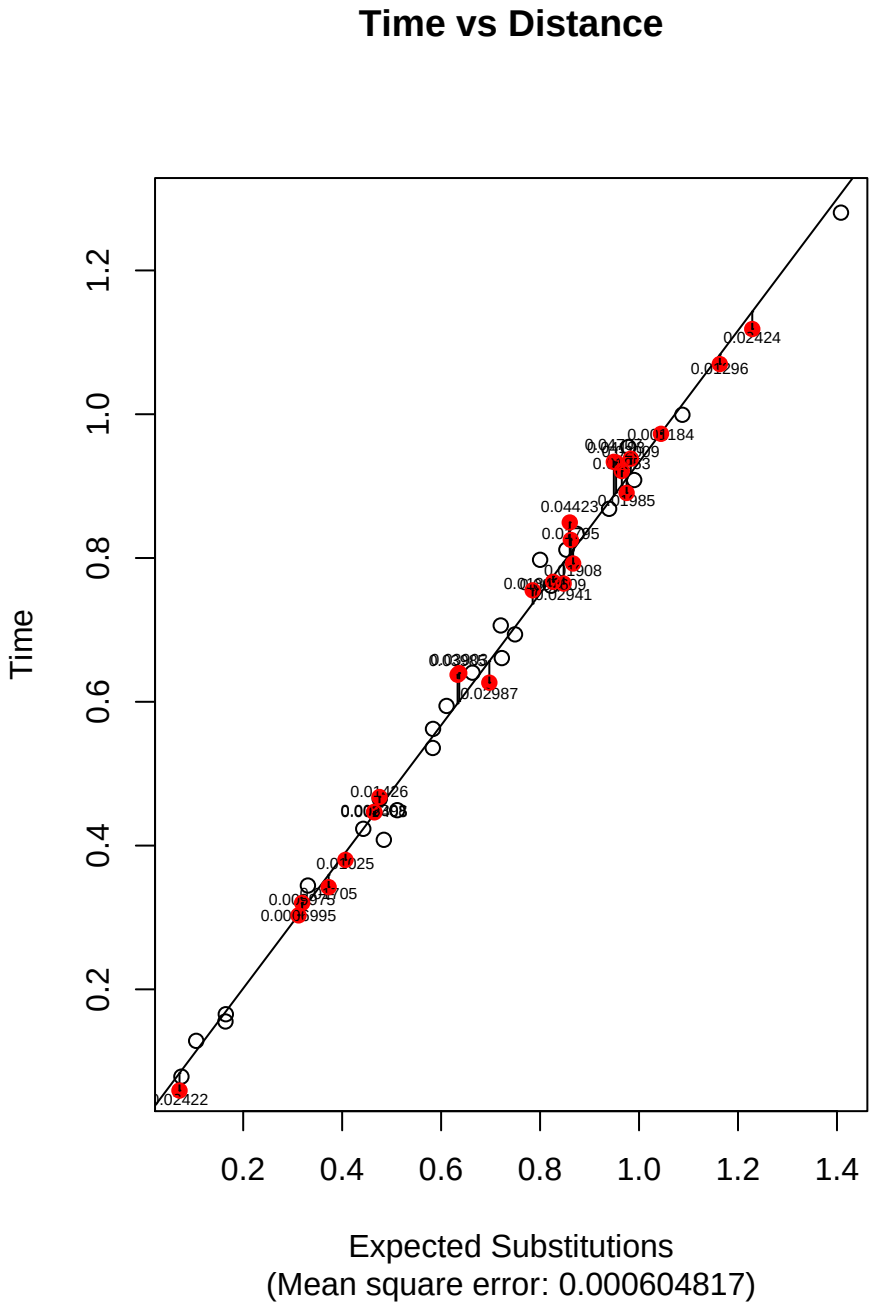
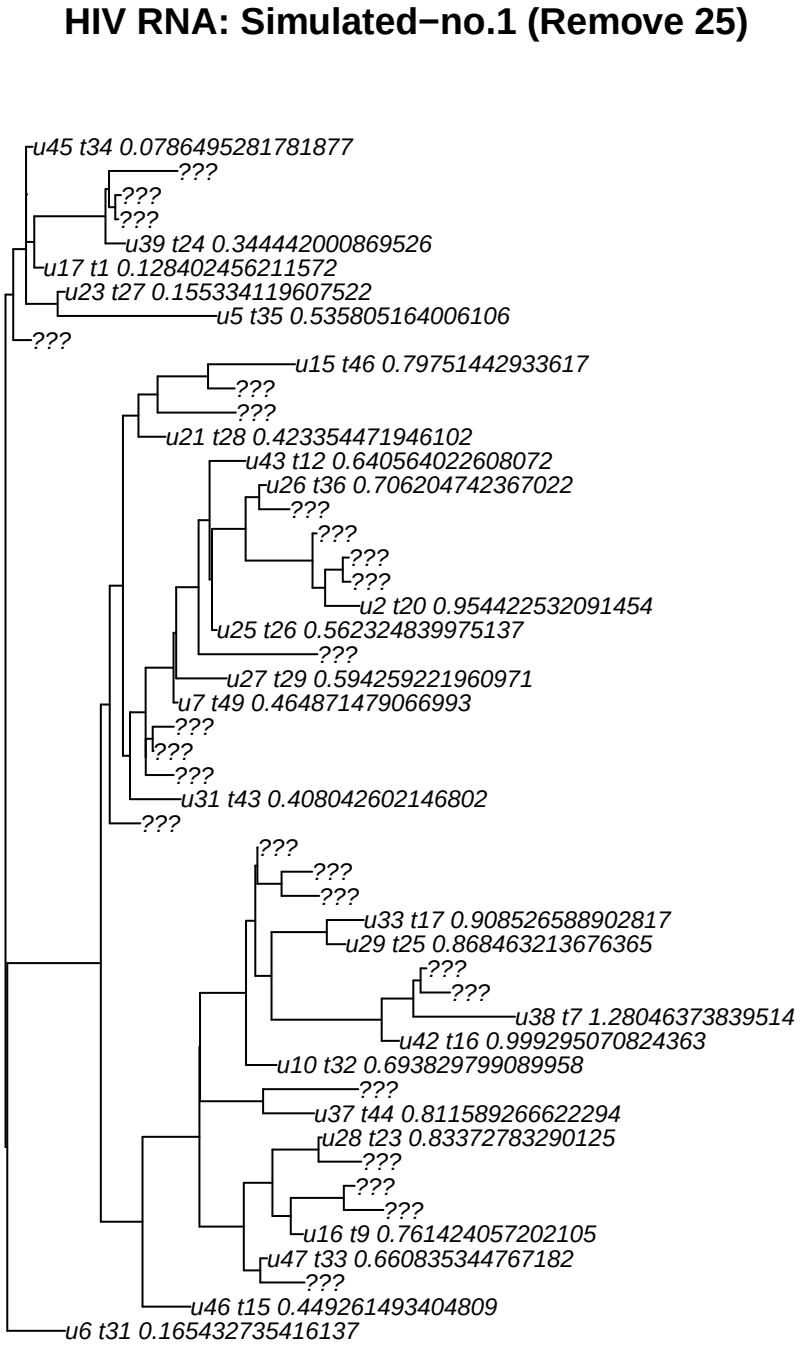
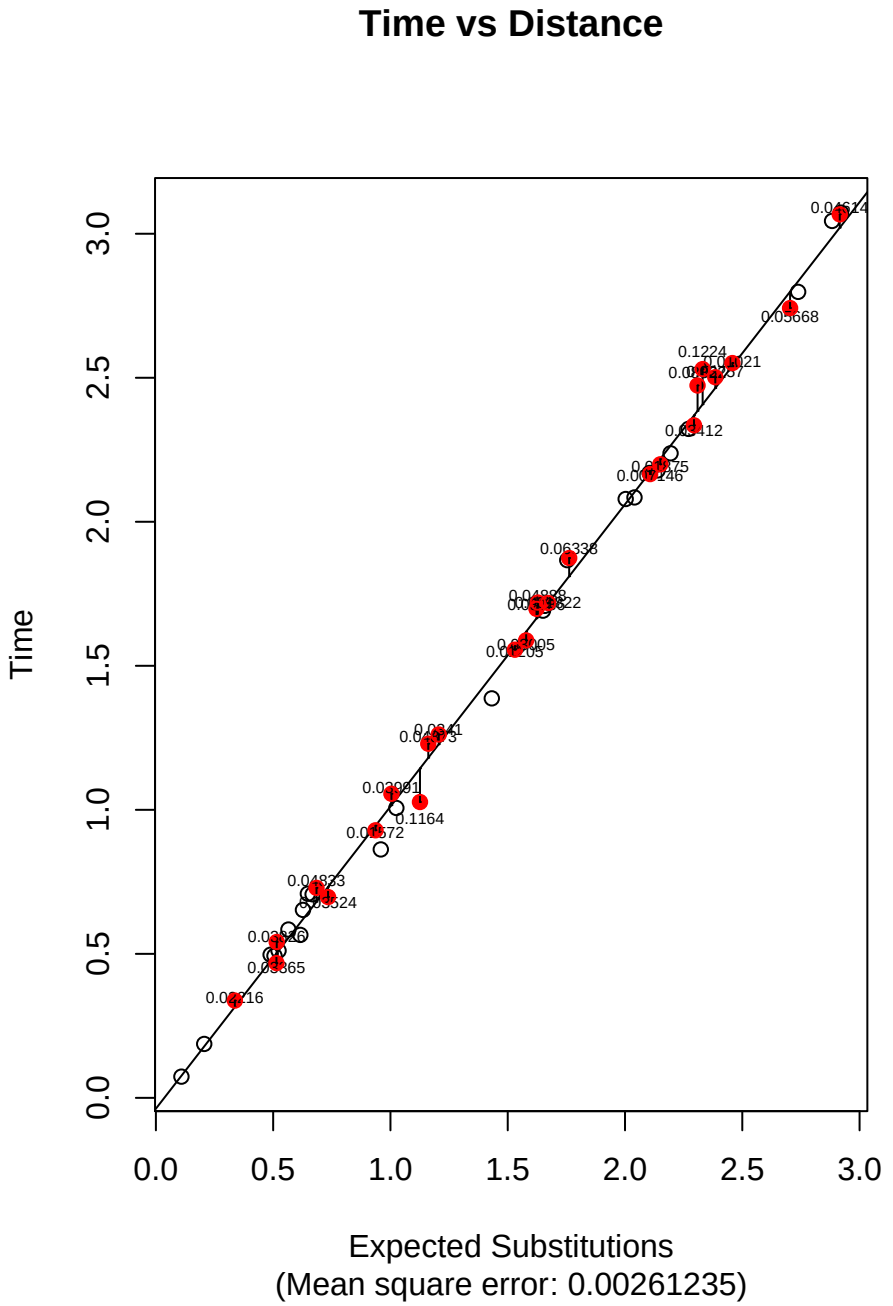
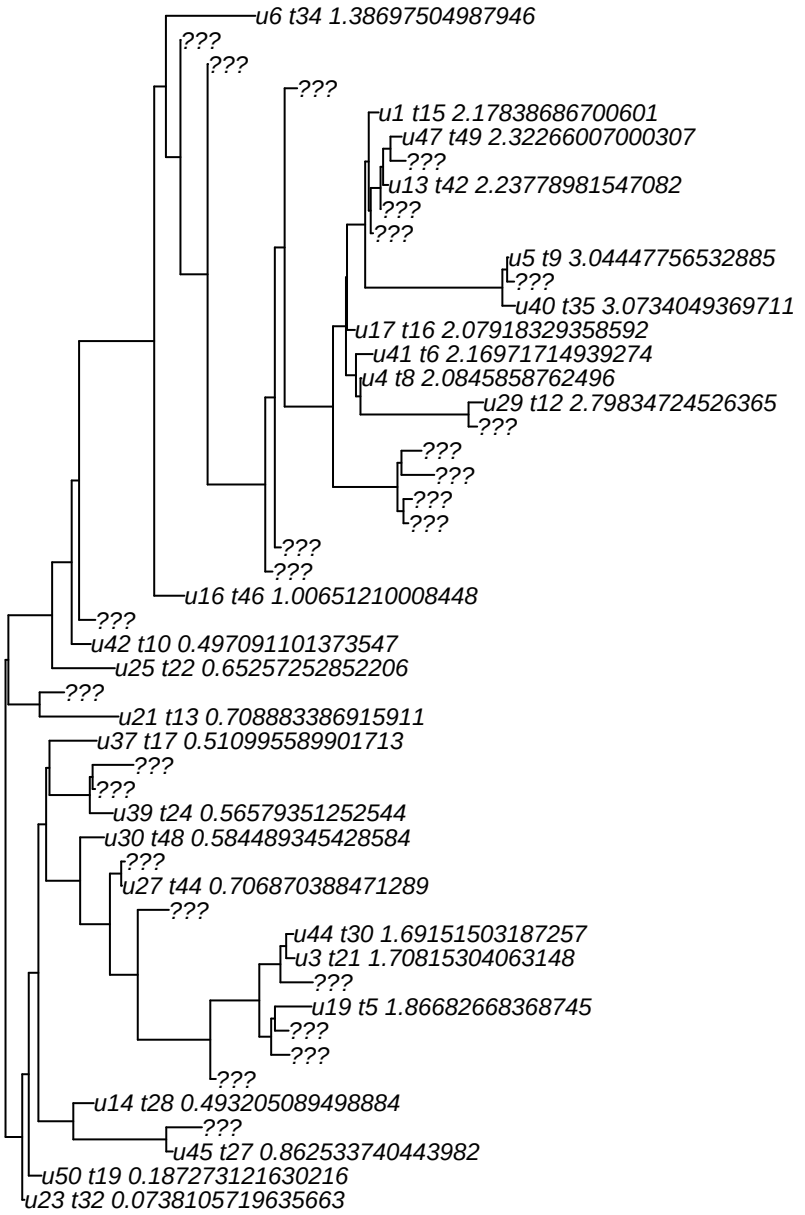
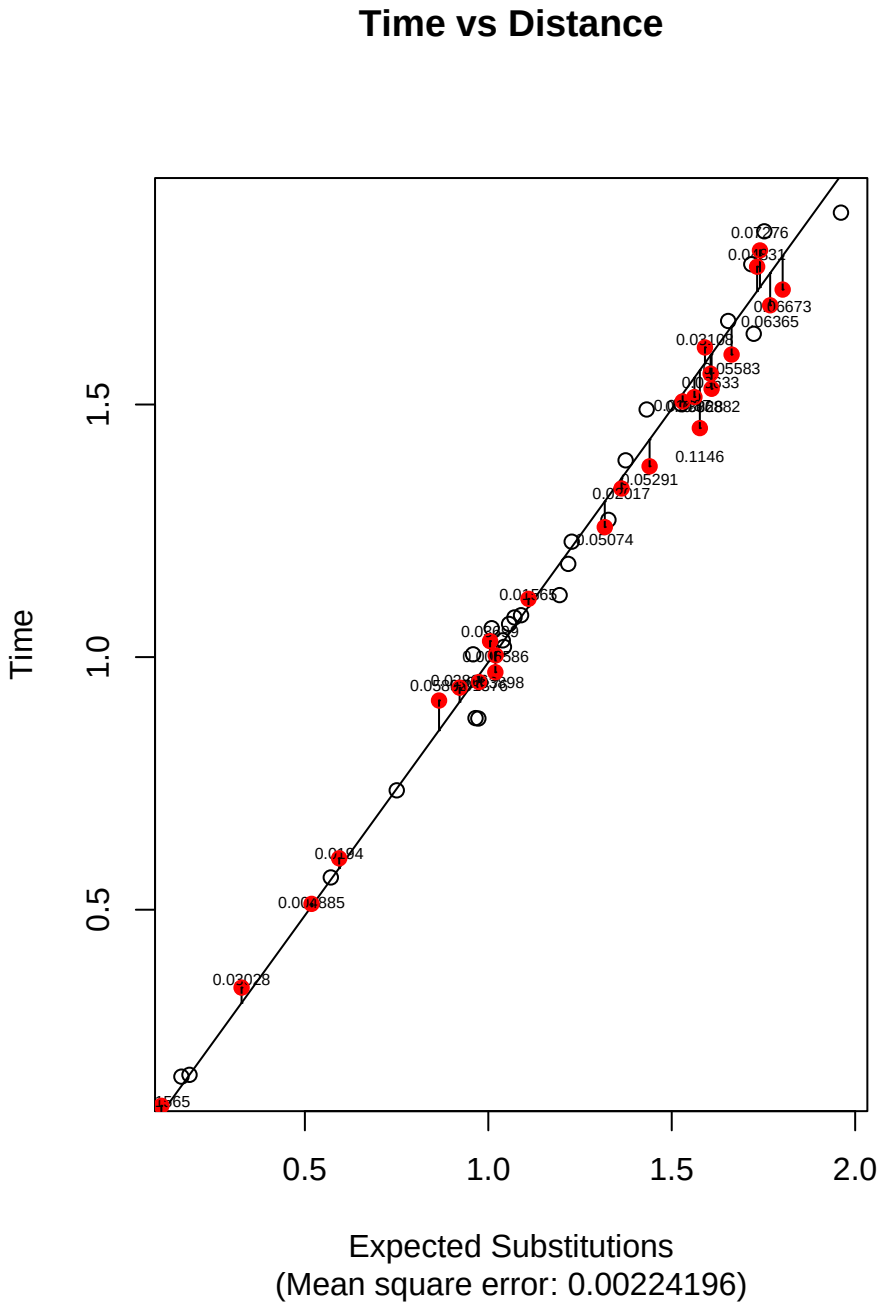
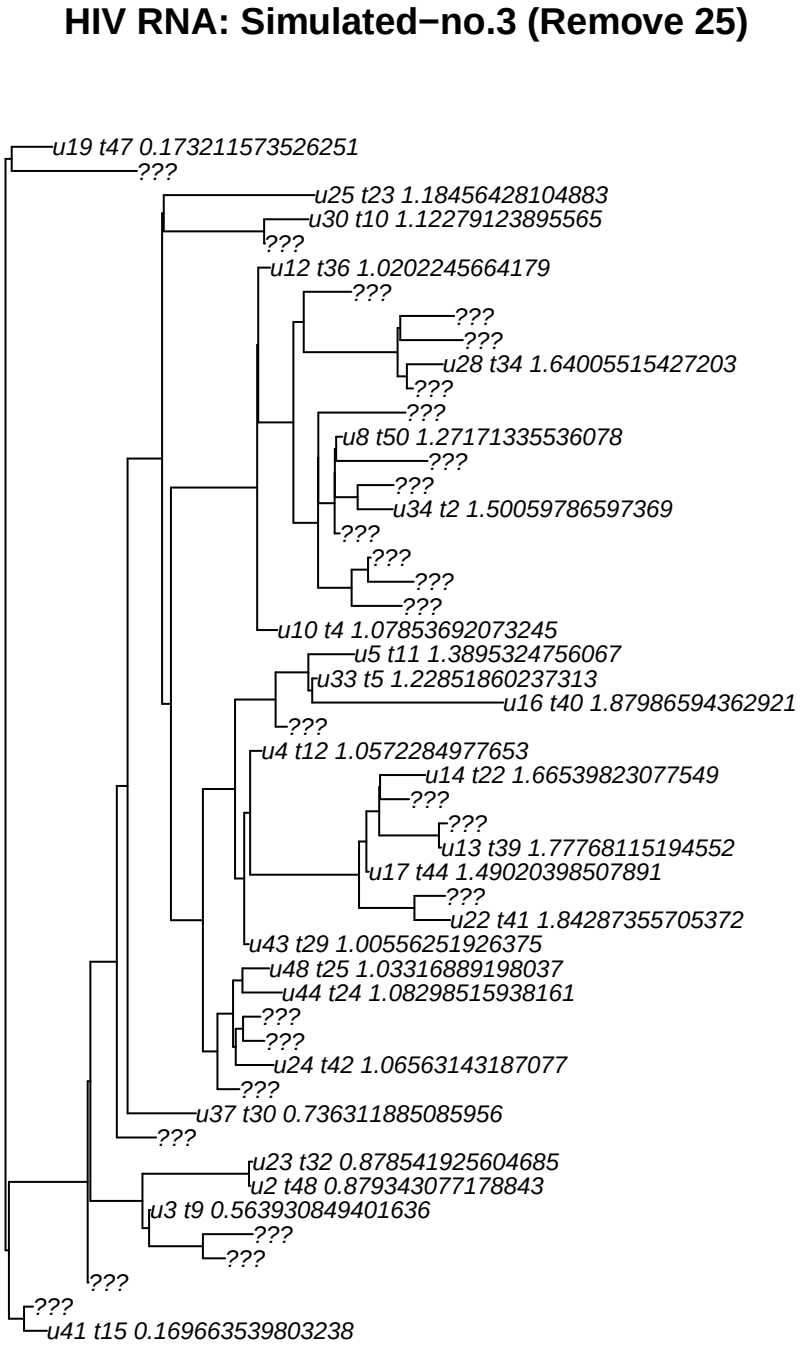

Time vs Distance
Time
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Expected Substitutions
(Mean square error: 0.000604817)

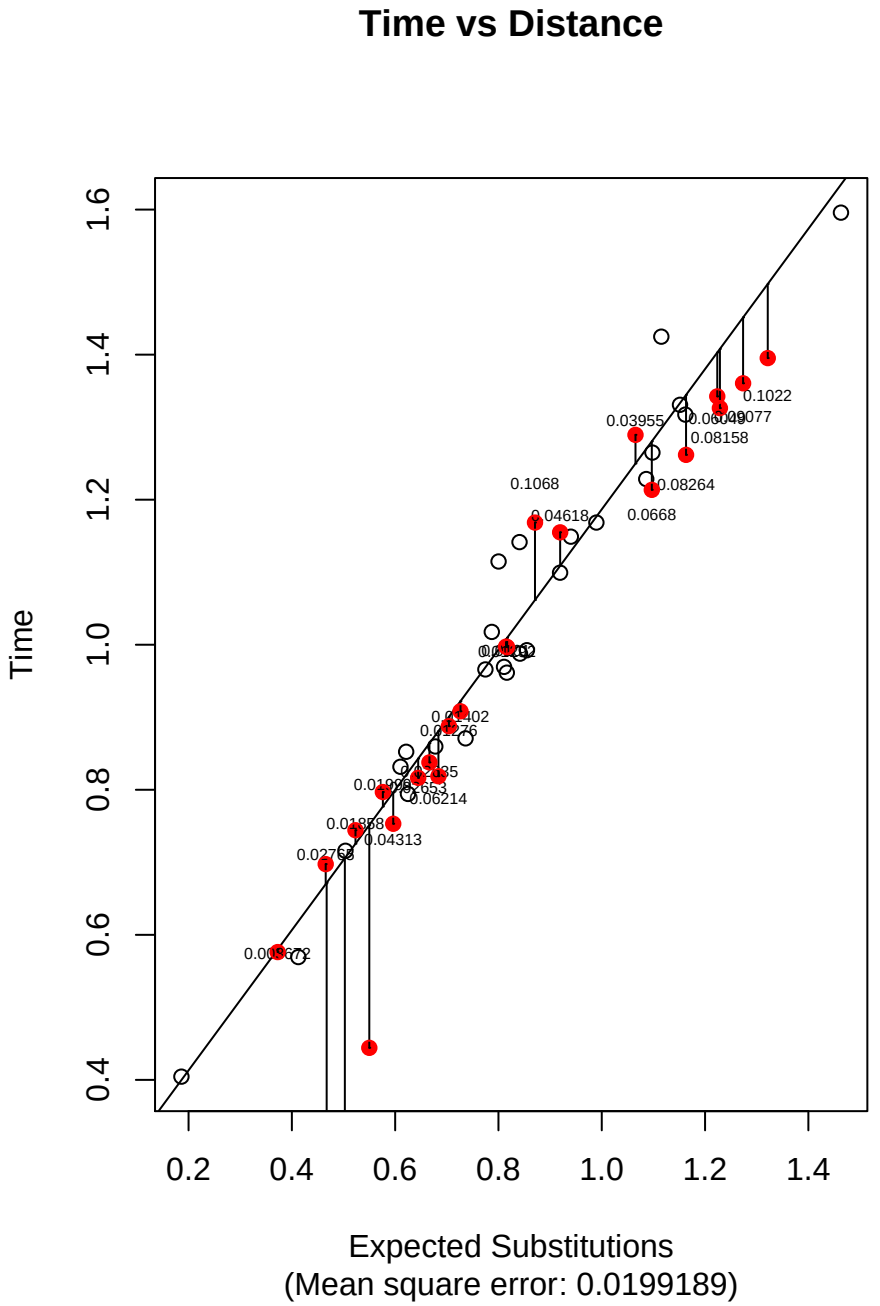

HIV RNA: Simulated−no.1 (Remove 25)
u45 t34 0.0786495281781877
???
???
???
u39 t24 0.344442000869526
u17 t1 0.128402456211572
u23 t27 0.155334119607522
u5 t35 0.535805164006106
???
u15 t46 0.79751442933617
???
???
u21 t28 0.423354471946102
u43 t12 0.640564022608072
u26 t36 0.706204742367022
???
???
???
???
u2 t20 0.954422532091454
u25 t26 0.562324839975137
???
u27 t29 0.594259221960971
u7 t49 0.464871479066993
???
???
???
u31 t43 0.408042602146802
???
???
???
???
u33 t17 0.908526588902817
u29 t25 0.868463213676365
???
???
u38 t7 1.28046373839514
u42 t16 0.999295070824363
u10 t32 0.693829799089958
???
u37 t44 0.811589266622294
u28 t23 0.83372783290125
???
???
???
u16 t9 0.761424057202105
u47 t33 0.660835344767182
???
u46 t15 0.449261493404809
u6 t31 0.165432735416137

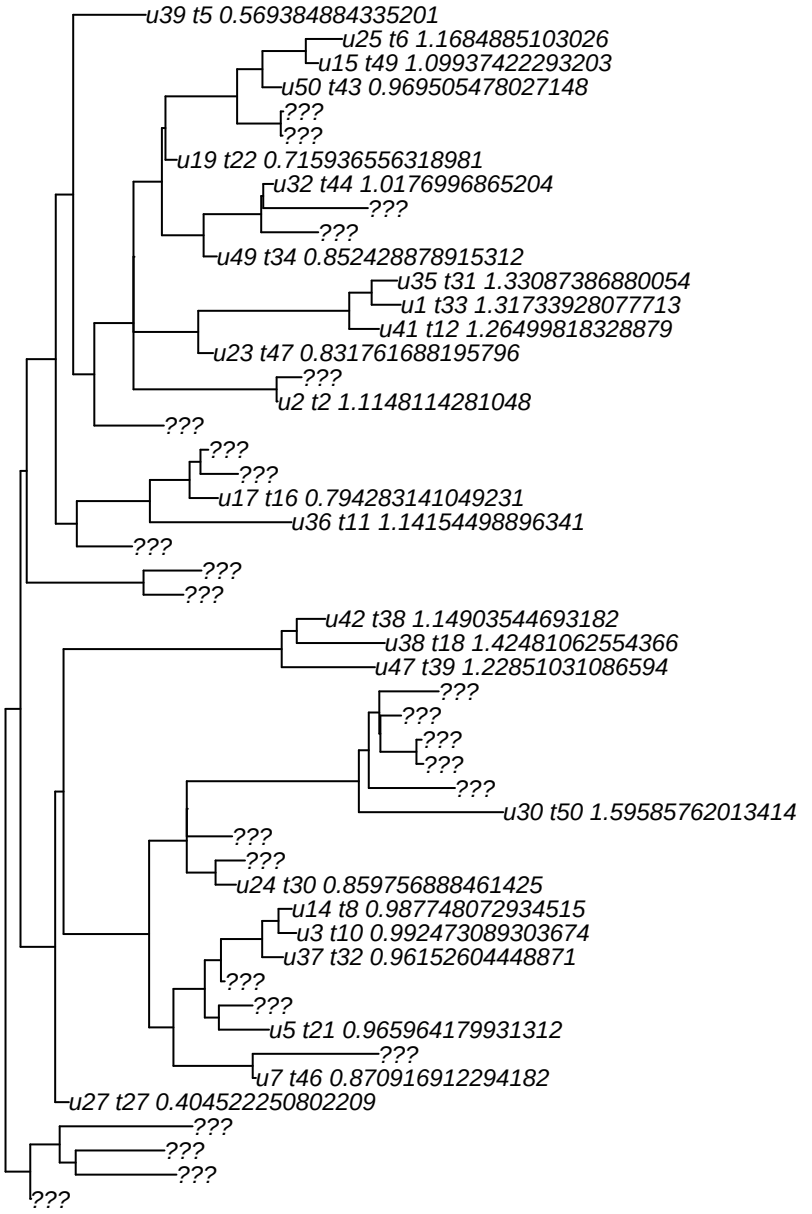

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00261235)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.05668
0.1224
0.06338
0.1164
0.04823
0.02216

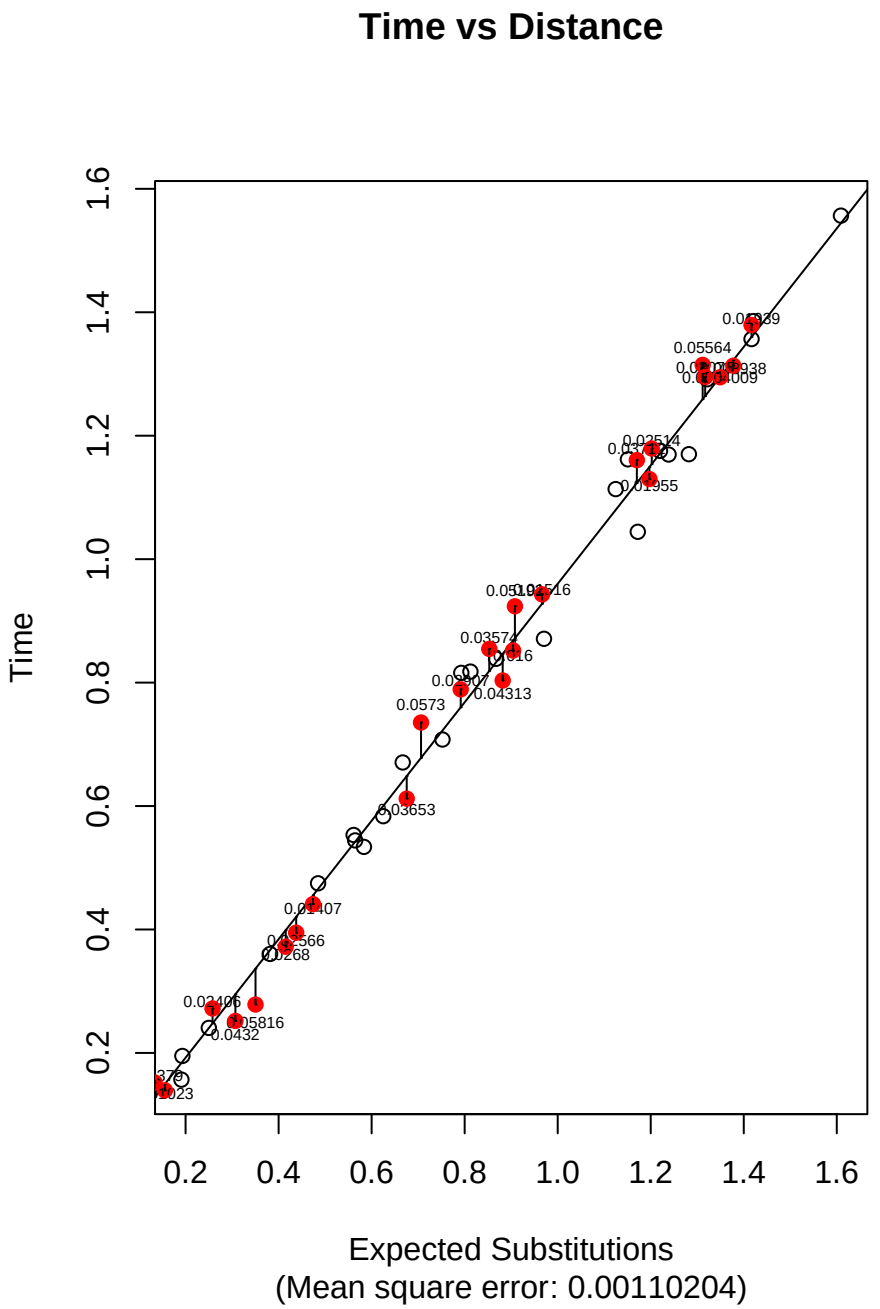

HIV RNA: Simulated−no.2 (Remove 25)
u6 t34 1.38697504987946
???
???
???
u1 t15 2.17838686700601
u47 t49 2.32266007000307
???
u13 t42 2.23778981547082
???
???
u5 t9 3.04447756532885
???
u40 t35 3.0734049369711
u17 t16 2.07918329358592
u41 t6 2.16971714939274
u4 t8 2.0845858762496
u29 t12 2.79834724526365
???
???
???
???
???
???
???
u16 t46 1.00651210008448
???
u42 t10 0.497091101373547
u25 t22 0.65257252852206
???
u21 t13 0.708883386915911
u37 t17 0.510995589901713
???
???
u39 t24 0.56579351252544
u30 t48 0.584489345428584
???
u27 t44 0.706870388471289
???
u44 t30 1.69151503187257
u3 t21 1.70815304063148
???
u19 t5 1.86682668368745
???
???
???
u14 t28 0.493205089498884
???
u45 t27 0.862533740443982
u50 t19 0.187273121630216
u23 t32 0.0738105719635663

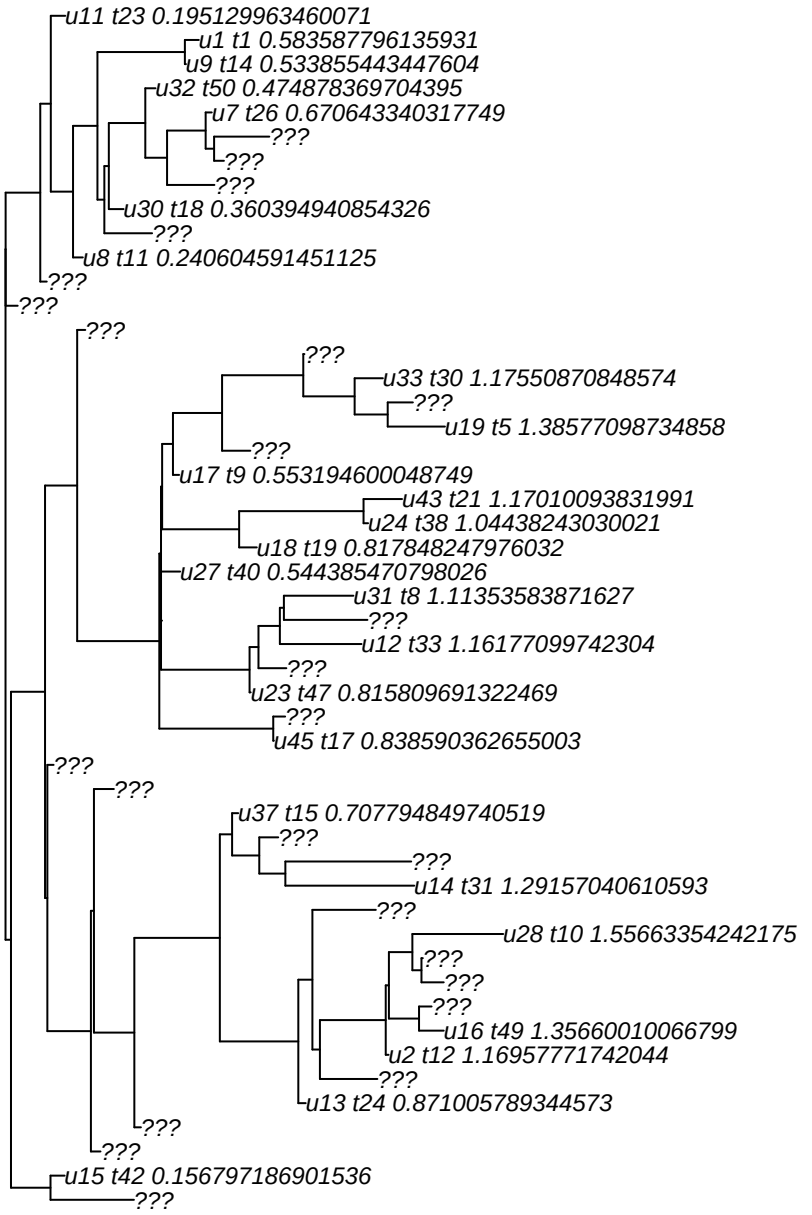

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
2.0
Expected Substitutions
(Mean square error: 0.00224196)

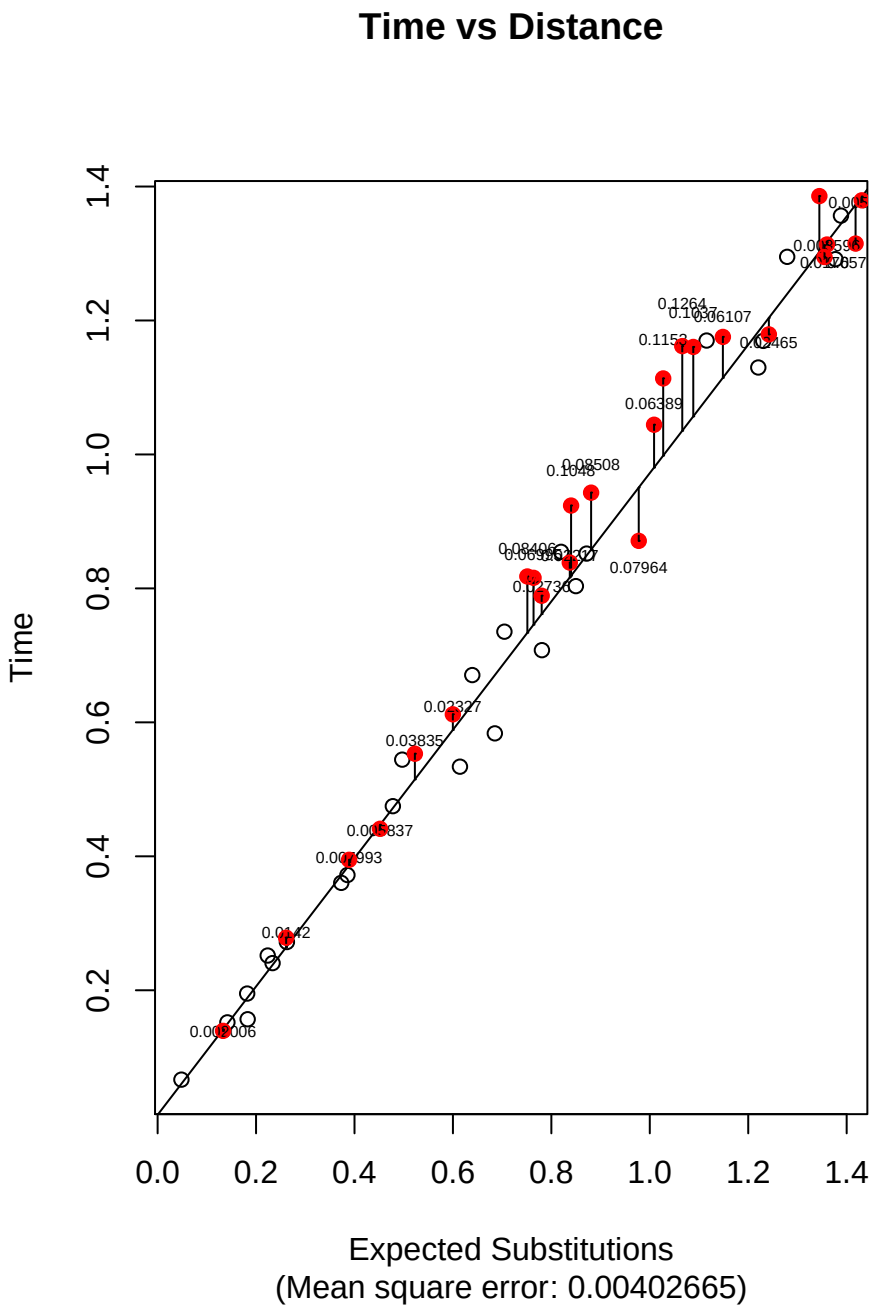

HIV RNA: Simulated−no.3 (Remove 25)
u19 t47 0.173211573526251
???
u25 t23 1.18456428104883
u30 t10 1.12279123895565
???
u12 t36 1.0202245664179
???
???
???
u28 t34 1.64005515427203
???
???
u8 t50 1.27171335536078
???
???
u34 t2 1.50059786597369
???
???
???
???
u10 t4 1.07853692073245
u5 t11 1.3895324756067
u33 t5 1.22851860237313
u16 t40 1.87986594362921
???
u4 t12 1.0572284977653
u14 t22 1.66539823077549
???
???
u13 t39 1.77768115194552
u17 t44 1.49020398507891
???
u22 t41 1.84287355705372
u43 t29 1.00556251926375
u48 t25 1.03316889198037
u44 t24 1.08298515938161
???
???
u24 t42 1.06563143187077
???
u37 t30 0.736311885085956
???
u23 t32 0.878541925604685
u2 t48 0.879343077178843
u3 t9 0.563930849401636
???
???
???
???
u41 t15 0.169663539803238

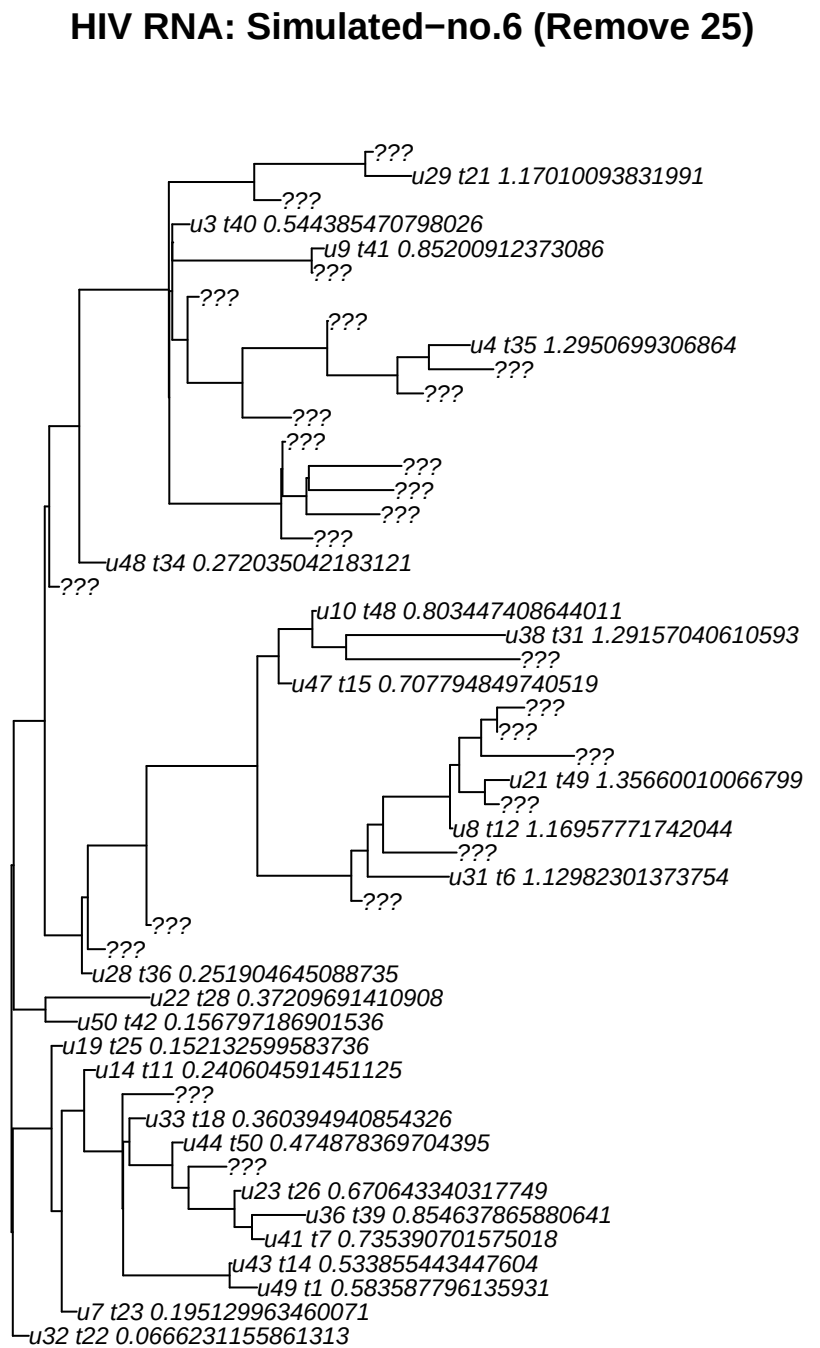

Time vs Distance
Time
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Expected Substitutions
(Mean square error: 0.0199189)
0.1022
0.03955
0.08158
0.1068
0.08264
0.04618
0.0668
0.06214
0.04313

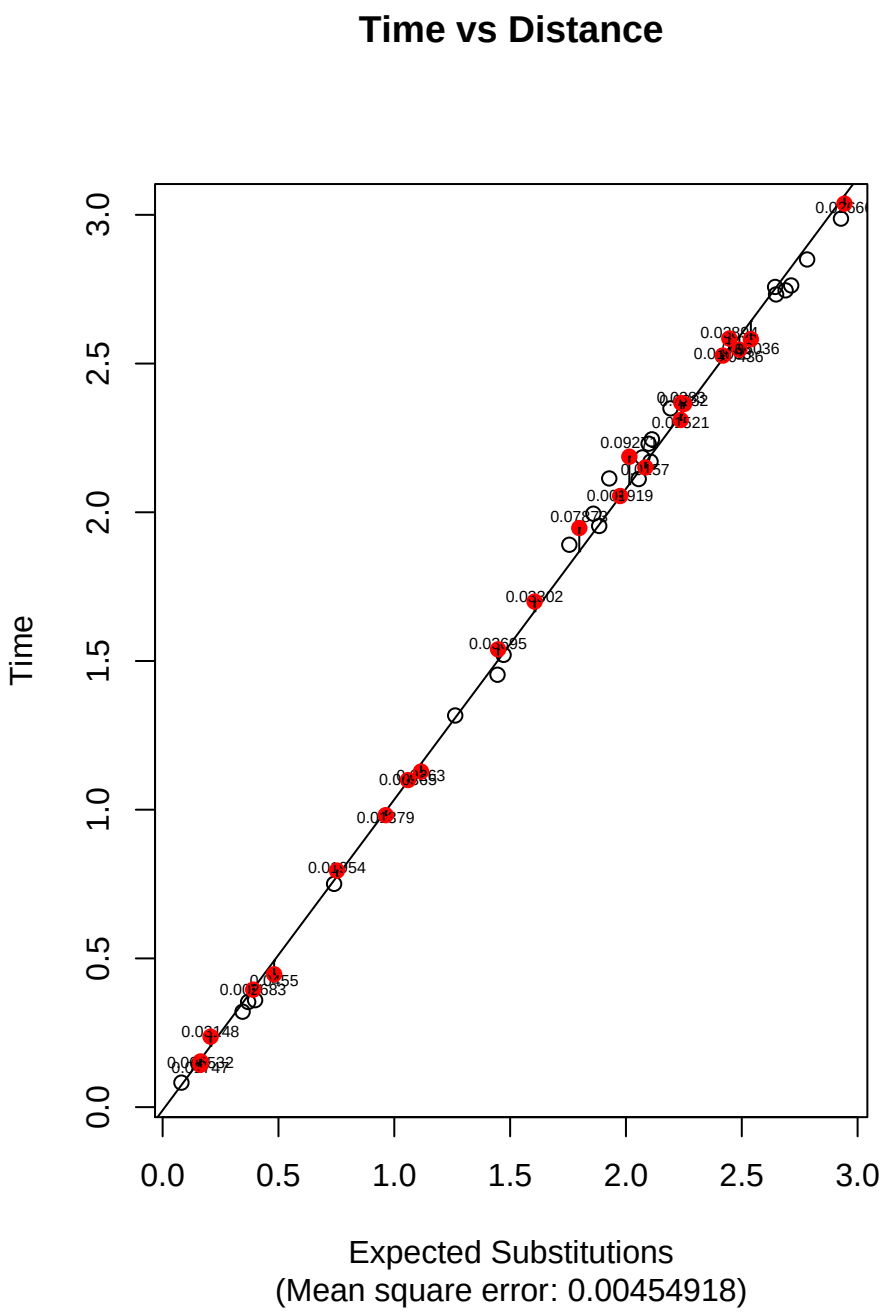

HIV RNA: Simulated−no.4 (Remove 25)
u39 t5 0.569384884335201
u25 t6 1.1684885103026
u15 t49 1.09937422293203
u50 t43 0.969505478027148
???
???
u19 t22 0.715936556318981
u32 t44 1.0176996865204
???
???
u49 t34 0.852428878915312
u35 t31 1.33087386880054
u1 t33 1.31733928077713
u41 t12 1.26499818328879
u23 t47 0.831761688195796
???
u2 t2 1.1148114281048
???
???
???
u17 t16 0.794283141049231
u36 t11 1.14154498896341
???
???
???
u42 t38 1.14903544693182
u38 t18 1.42481062554366
u47 t39 1.22851031086594
???
???
???
???
???
u30 t50 1.59585762013414
???
???
u24 t30 0.859756888461425
u14 t8 0.987748072934515
u3 t10 0.992473089303674
u37 t32 0.96152604448871
???
???
u5 t21 0.965964179931312
???
u7 t46 0.870916912294182
u27 t27 0.404522250802209
???
???
???
???

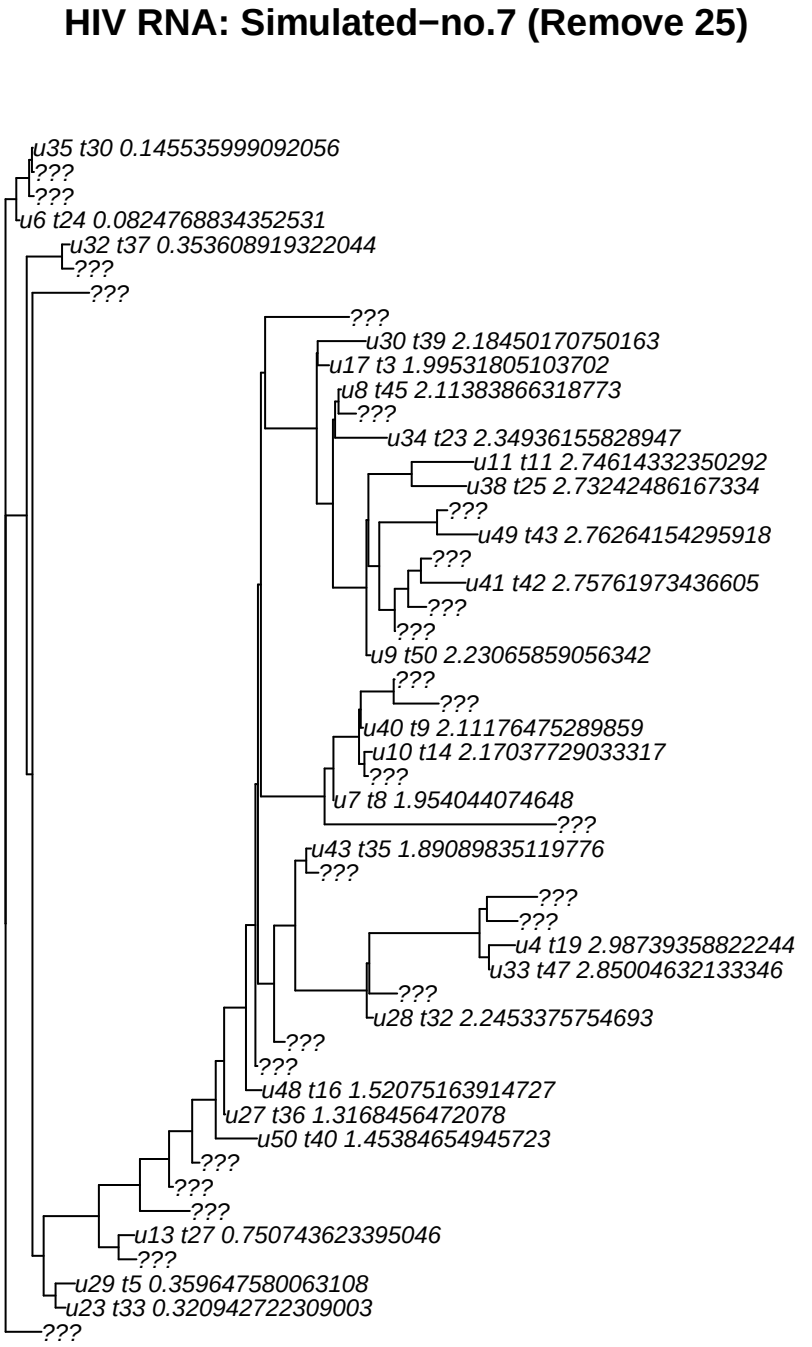

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00110204)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.05564
0.03574
0.0573
0.04313
0.03653
0.01407
0.02406
0.05816
0.0432
0.01955
0.02514

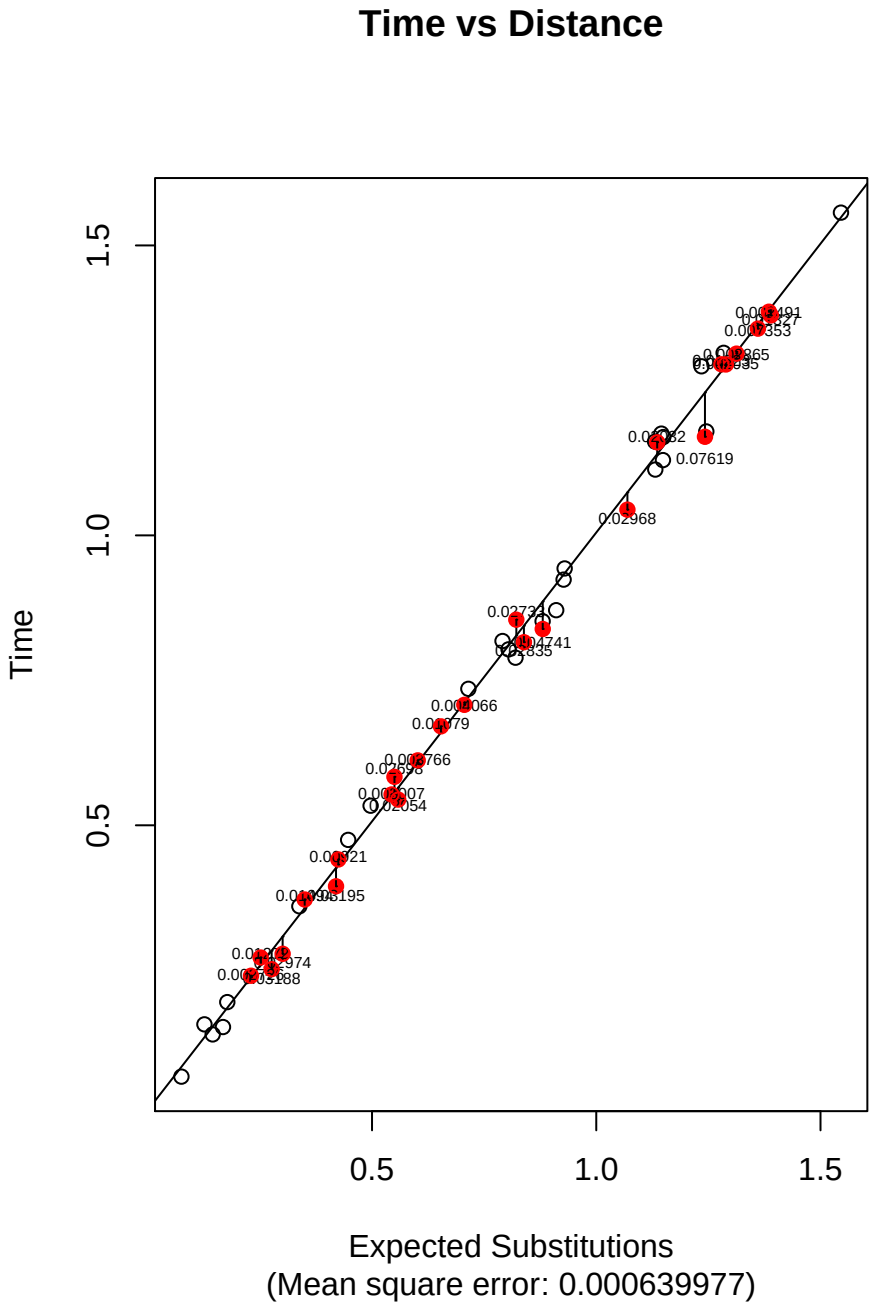

HIV RNA: Simulated−no.5 (Remove 25)
u11 t23 0.195129963460071
u1 t1 0.583587796135931
u9 t14 0.533855443447604
u32 t50 0.474878369704395
u7 t26 0.670643340317749
u30 t18 0.360394940854326
u8 t11 0.240604591451125
u33 t30 1.17550870848574
u19 t5 1.38577098734858
u17 t9 0.553194600048749
u43 t21 1.17010093831991
u24 t38 1.04438243030021
u18 t19 0.817848247976032
u27 t40 0.544385470798026
u31 t8 1.11353583871627
u12 t33 1.16177099742304
u23 t47 0.815809691322469
u45 t17 0.838590362655003
u37 t15 0.707794849740519
u14 t31 1.29157040610593
u28 t10 1.55663354242175
u16 t49 1.35660010066799
u2 t12 1.16957771742044
u13 t24 0.871005789344573
u15 t42 0.156797186901536
???

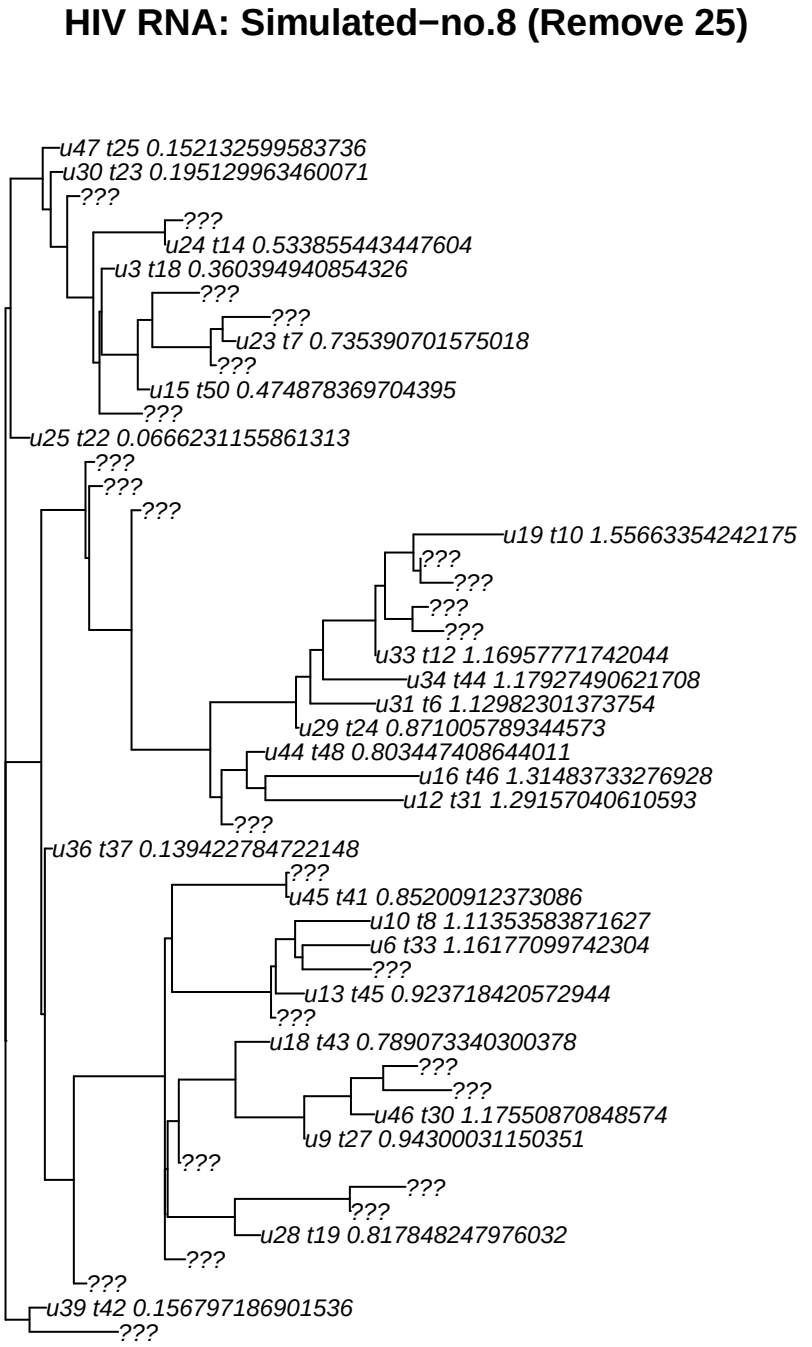

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00402665)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.1264
0.06107
0.1153
0.02465
0.06389
0.08508
0.1048
0.07964
0.02327
0.03835
0.005837
0.007993
0.0142
0.002006

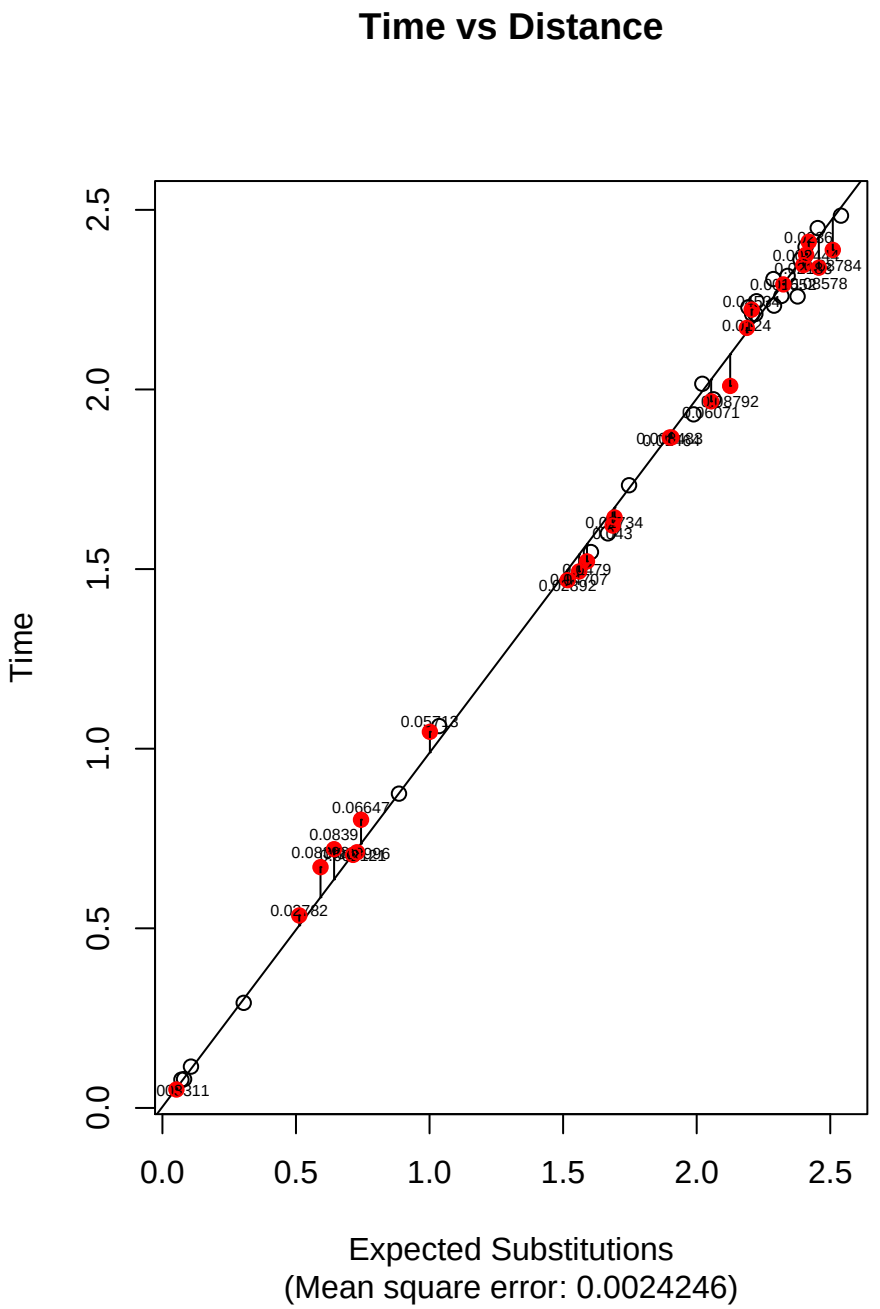

HIV RNA: Simulated−no.6 (Remove 25)
u29 t21 1.17010093831991
u3 t40 0.544385470798026
u9 t41 0.85200912373086
u4 t35 1.2950699306864
u48 t34 0.272035042183121
u10 t48 0.803447408644011
u38 t31 1.29157040610593
u47 t15 0.707794849740519
u21 t49 1.35660010066799
u8 t12 1.16957771742044
u31 t6 1.12982301373754
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
u36 t39 0.854637865880641
u41 t7 0.735390701575018
u43 t14 0.533855443447604
u49 t1 0.583587796135931
u7 t23 0.195129963460071
u32 t22 0.0666231155861313

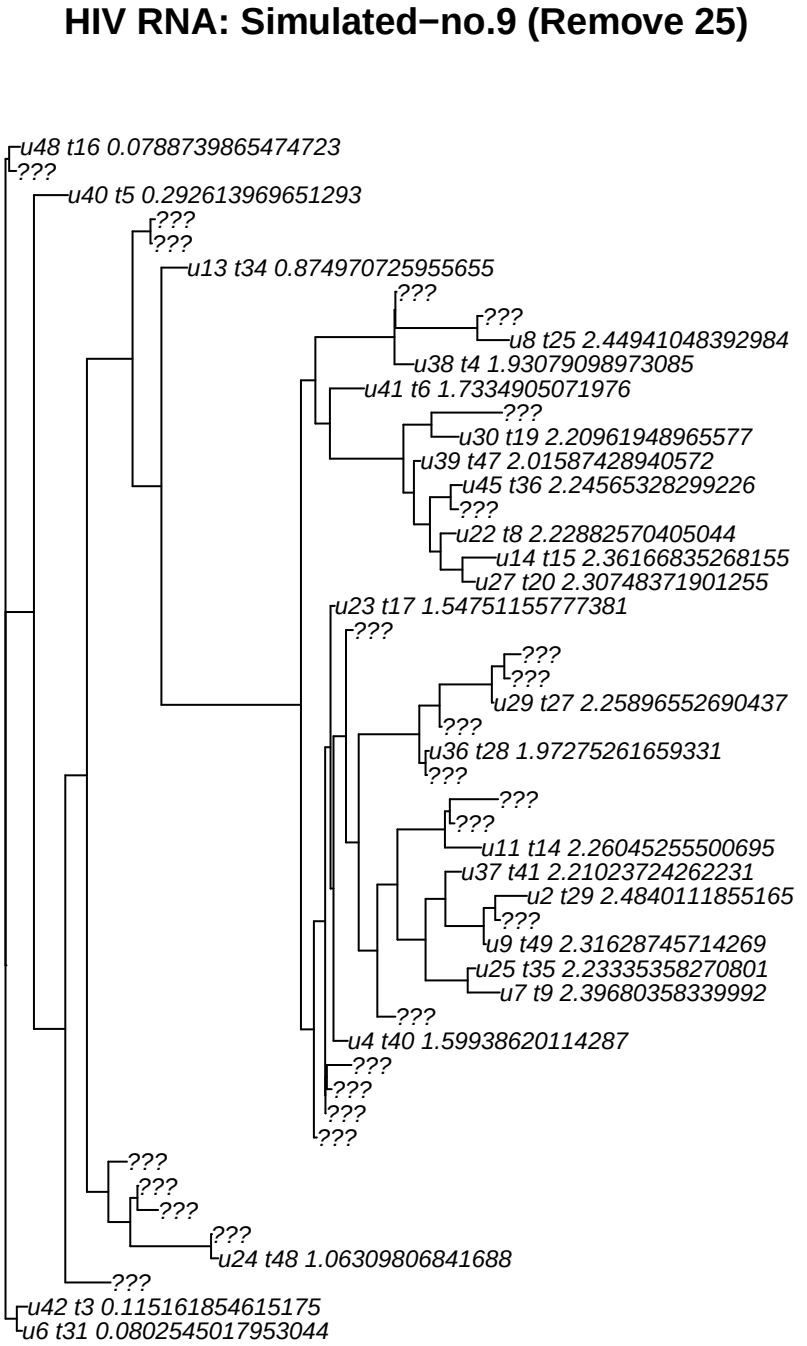

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Expected Substitutions
(Mean square error: 0.00454918)

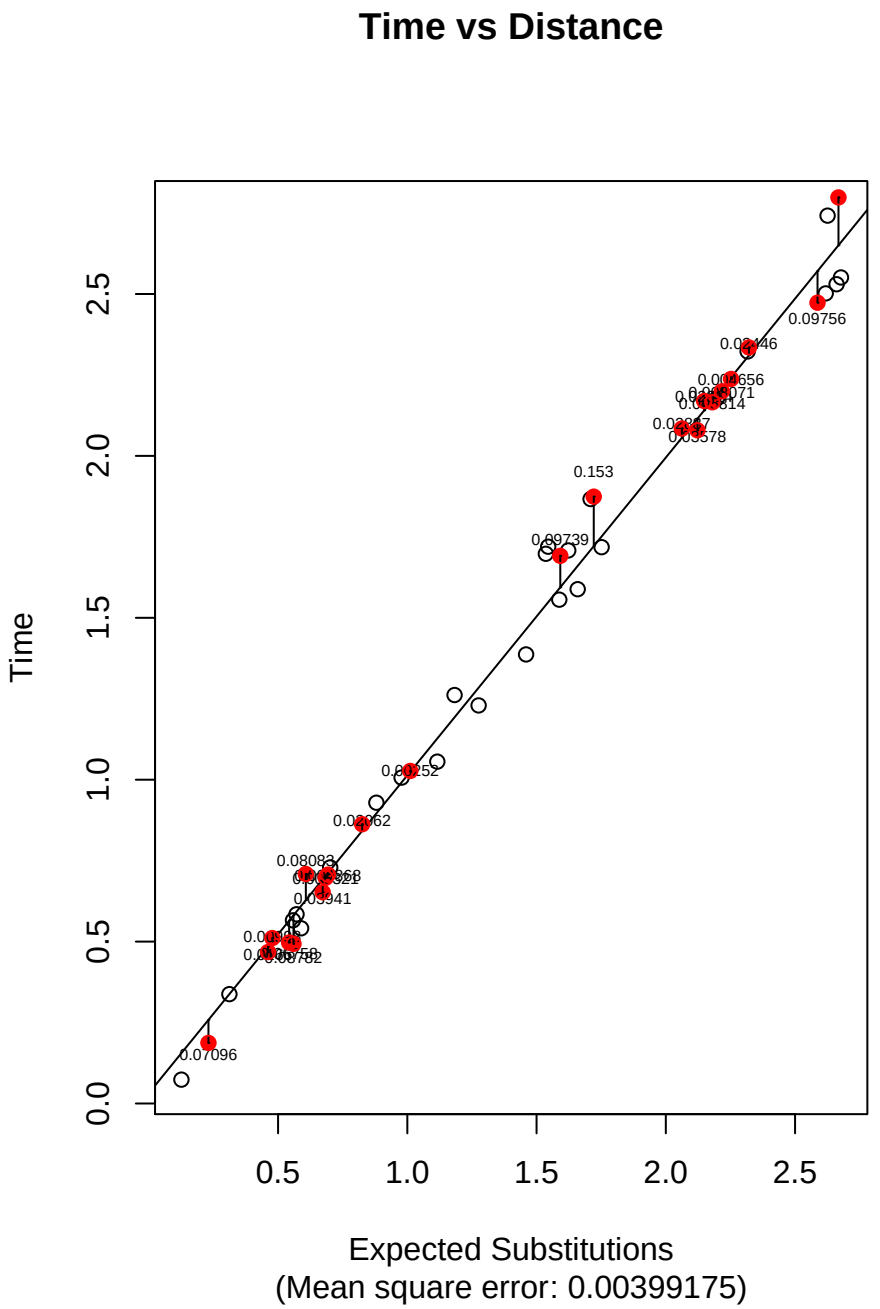

HIV RNA: Simulated−no.7 (Remove 25)
u35 t30 0.145535999092056
???
???
u6 t24 0.0824768834352531
u32 t37 0.353608919322044
???
???
???
u30 t39 2.18450170750163
u17 t3 1.99531805103702
u8 t45 2.11383866318773
???
u34 t23 2.34936155828947
u11 t11 2.74614332350292
u38 t25 2.73242486167334
???
u49 t43 2.76264154295918
???
u41 t42 2.75761973436605
???
???
u9 t50 2.23065859056342
???
???
u40 t9 2.11176475289859
u10 t14 2.17037729033317
???
u7 t8 1.954044074648
???
u43 t35 1.89089835119776
???
???
???
u4 t19 2.98739358822244
u33 t47 2.85004632133346
???
u28 t32 2.2453375754693
???
???
u48 t16 1.52075163914727
u27 t36 1.3168456472078
u50 t40 1.45384654945723
???
???
???
u13 t27 0.750743623395046
???
u29 t5 0.359647580063108
u23 t33 0.320942722309003
???

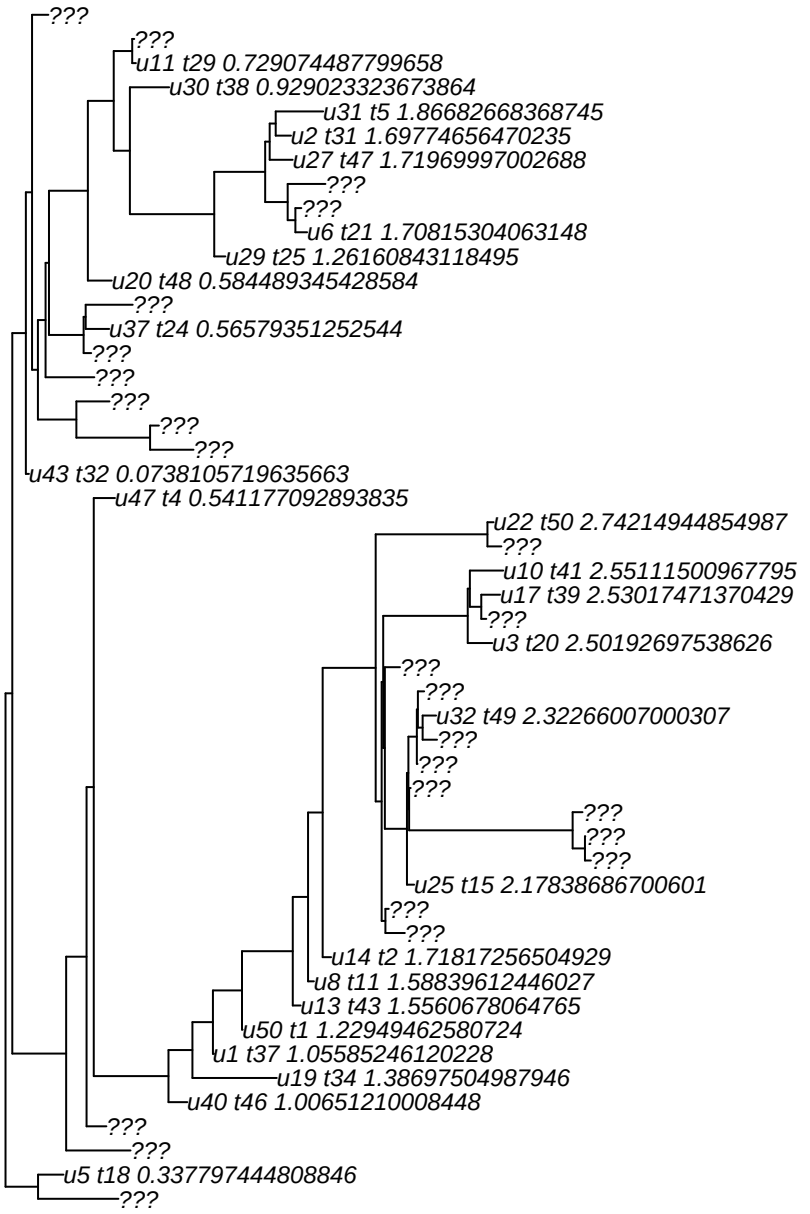

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
0.07619
0.02968
0.02054
Expected Substitutions
(Mean square error: 0.000639977)

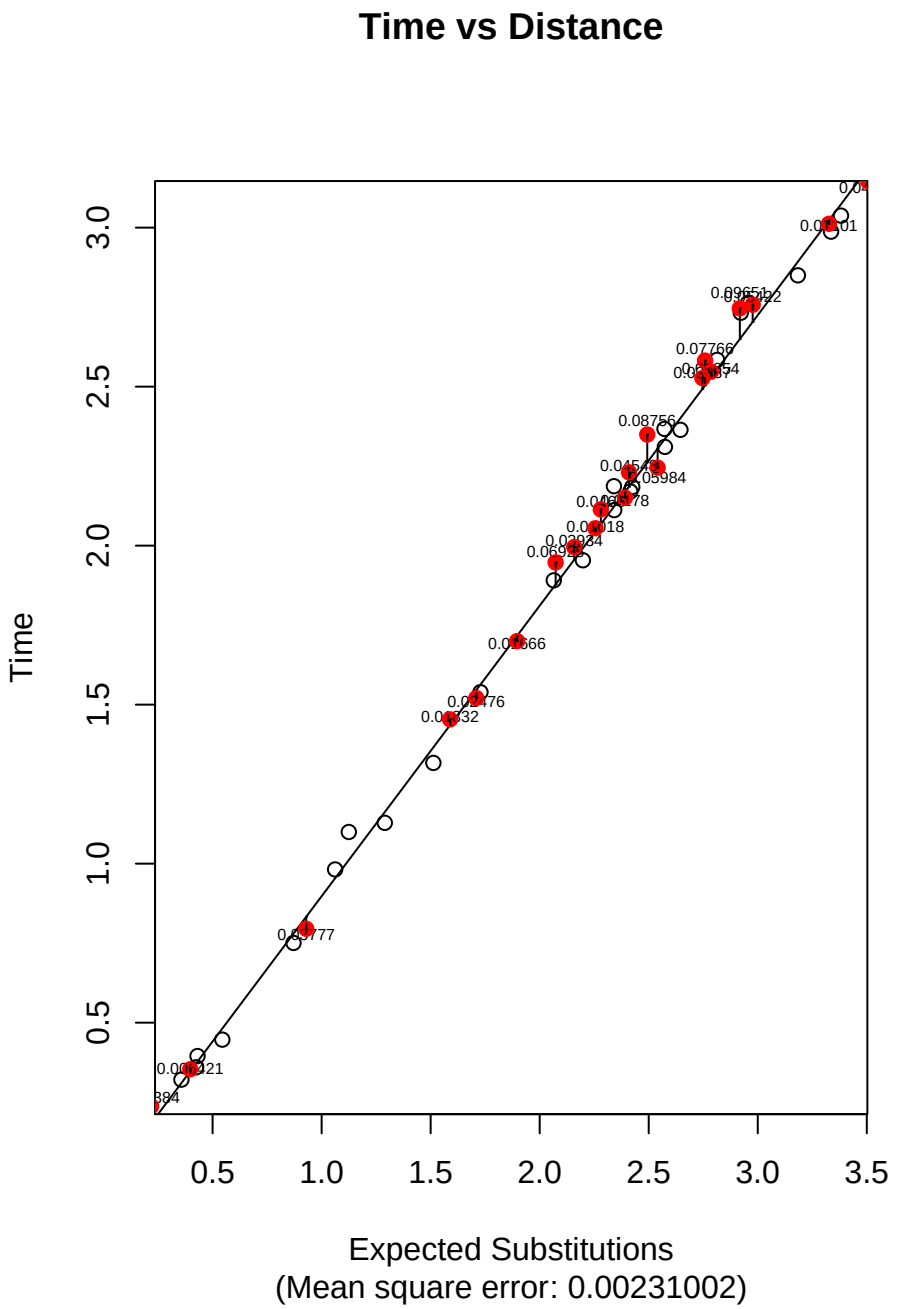

HIV RNA: Simulated−no.8 (Remove 25)
u47 t25 0.152132599583736
u30 t23 0.195129963460071
???
???
u24 t14 0.533855443447604
u3 t18 0.360394940854326
???
???
u23 t7 0.735390701575018
???
u15 t50 0.474878369704395
???
u25 t22 0.0666231155861313
???
???
???
u19 t10 1.55663354242175
???
???
???
???
u33 t12 1.16957771742044
u34 t44 1.17927490621708
u31 t6 1.12982301373754
u29 t24 0.871005789344573
u44 t48 0.803447408644011
u16 t46 1.31483733276928
u12 t31 1.29157040610593
???
u36 t37 0.139422784722148
???
u45 t41 0.85200912373086
u10 t8 1.11353583871627
u6 t33 1.16177099742304
???
u13 t45 0.923718420572944
???
u18 t43 0.789073340300378
???
???
u46 t30 1.17550870848574
u9 t27 0.94300031150351
???
???
???
u28 t19 0.817848247976032
???
???
u39 t42 0.156797186901536
???

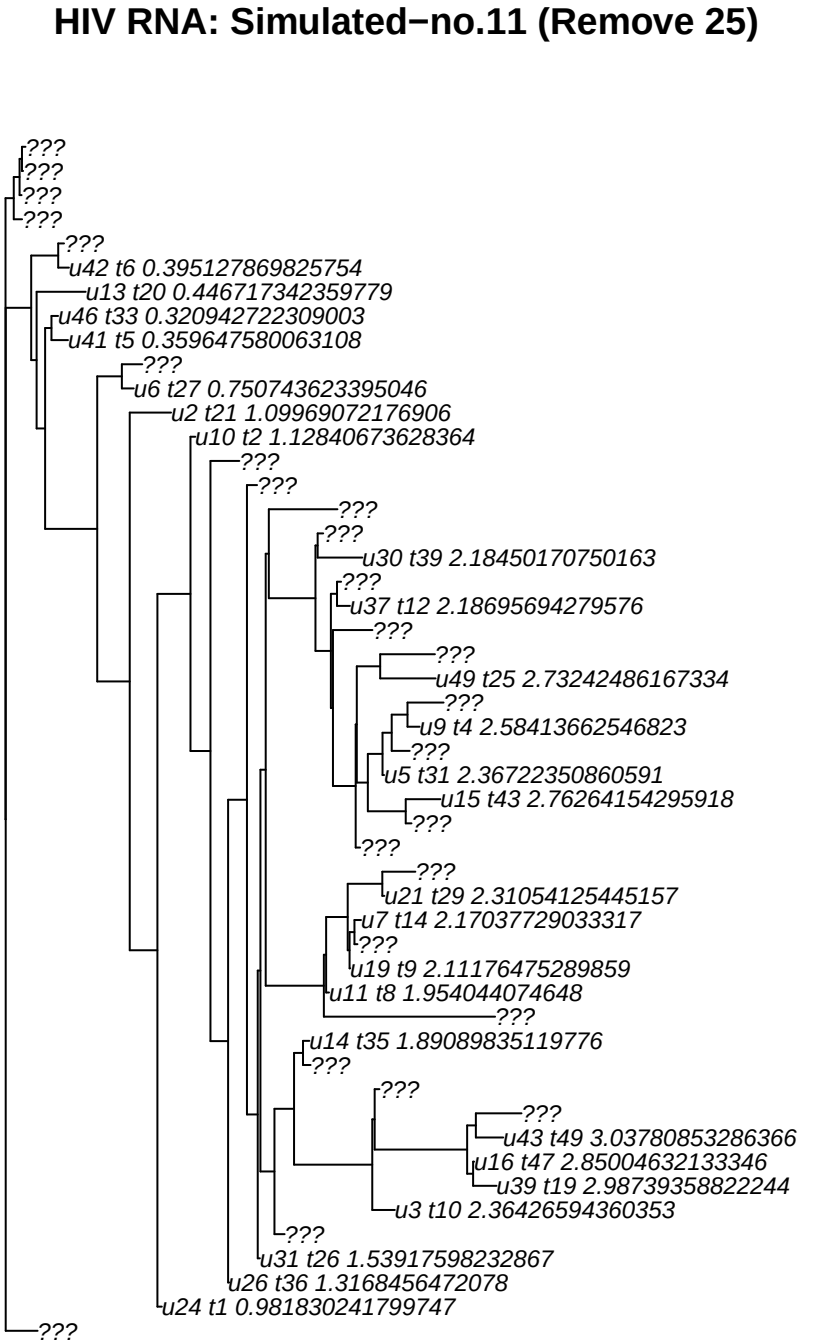

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
Expected Substitutions
(Mean square error: 0.0024246)

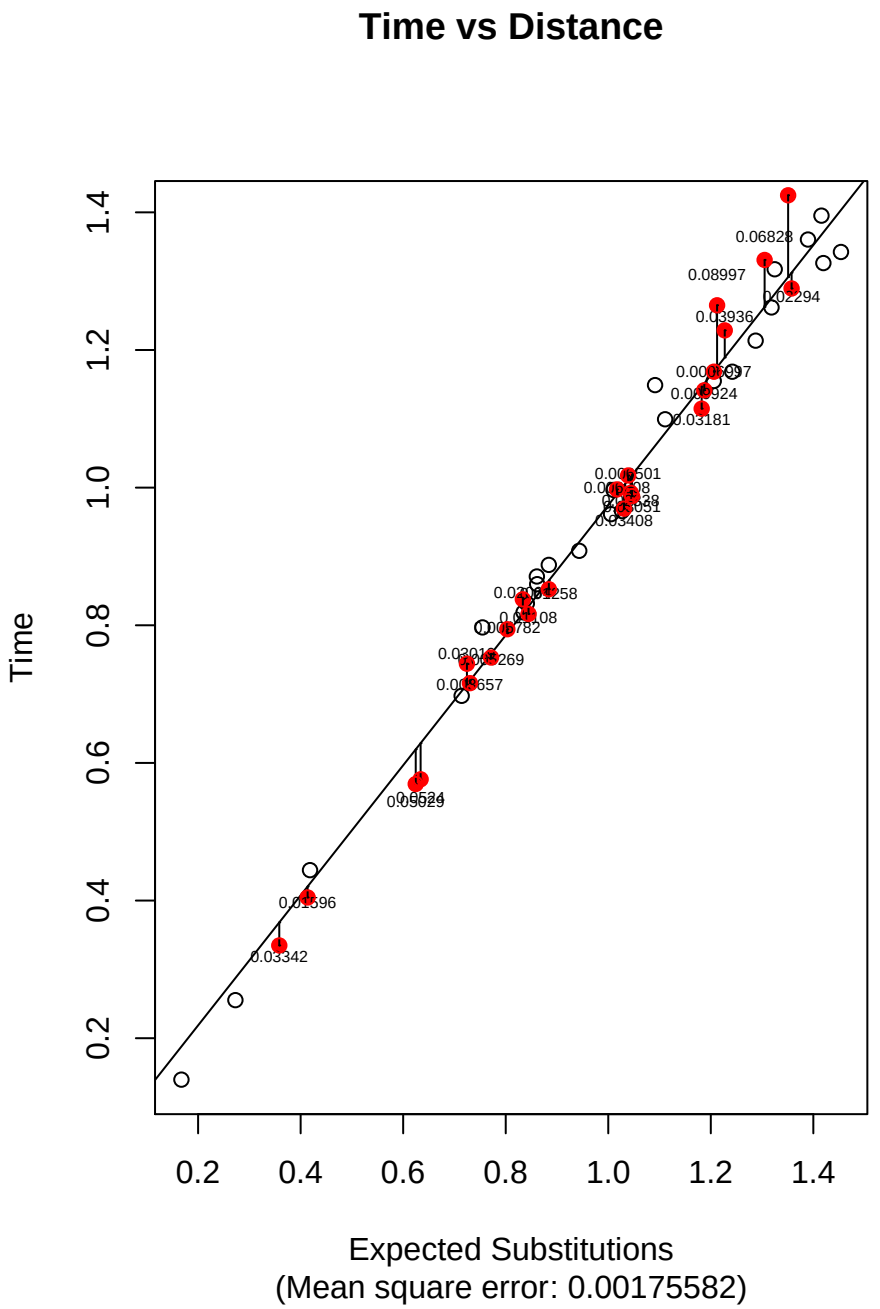

HIV RNA: Simulated−no.9 (Remove 25)
u48 t16 0.0788739865474723
???
u40 t5 0.292613969651293
???
???
u13 t34 0.874970725955655
???
???
u8 t25 2.44941048392984
u38 t4 1.93079098973085
u41 t6 1.7334905071976
???
u30 t19 2.20961948965577
u39 t47 2.01587428940572
u45 t36 2.24565328299226
???
u22 t8 2.22882570405044
u14 t15 2.36166835268155
u27 t20 2.30748371901255
u23 t17 1.54751155777381
???
???
???
u29 t27 2.25896552690437
???
u36 t28 1.97275261659331
???
???
???
u11 t14 2.26045255500695
u37 t41 2.21023724262231
u2 t29 2.4840111855165
???
u9 t49 2.31628745714269
u25 t35 2.23335358270801
u7 t9 2.39680358339992
???
u4 t40 1.59938620114287
???
???
???
???
???
???
???
???
u24 t48 1.06309806841688
???
u42 t3 0.115161854615175
u6 t31 0.0802545017953044

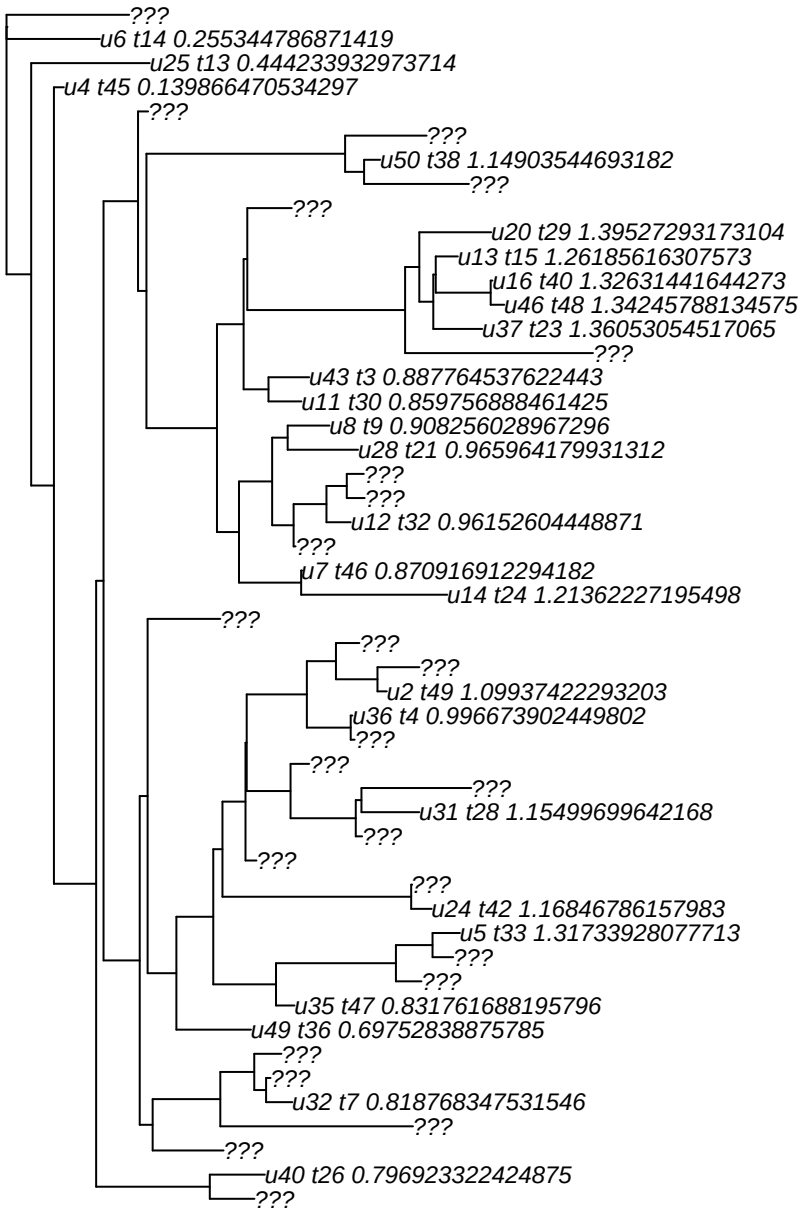

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
0.5
1.0
1.5
2.0
2.5
Expected Substitutions
(Mean square error: 0.00399175)
0.09756
0.153
0.09739
0.07096

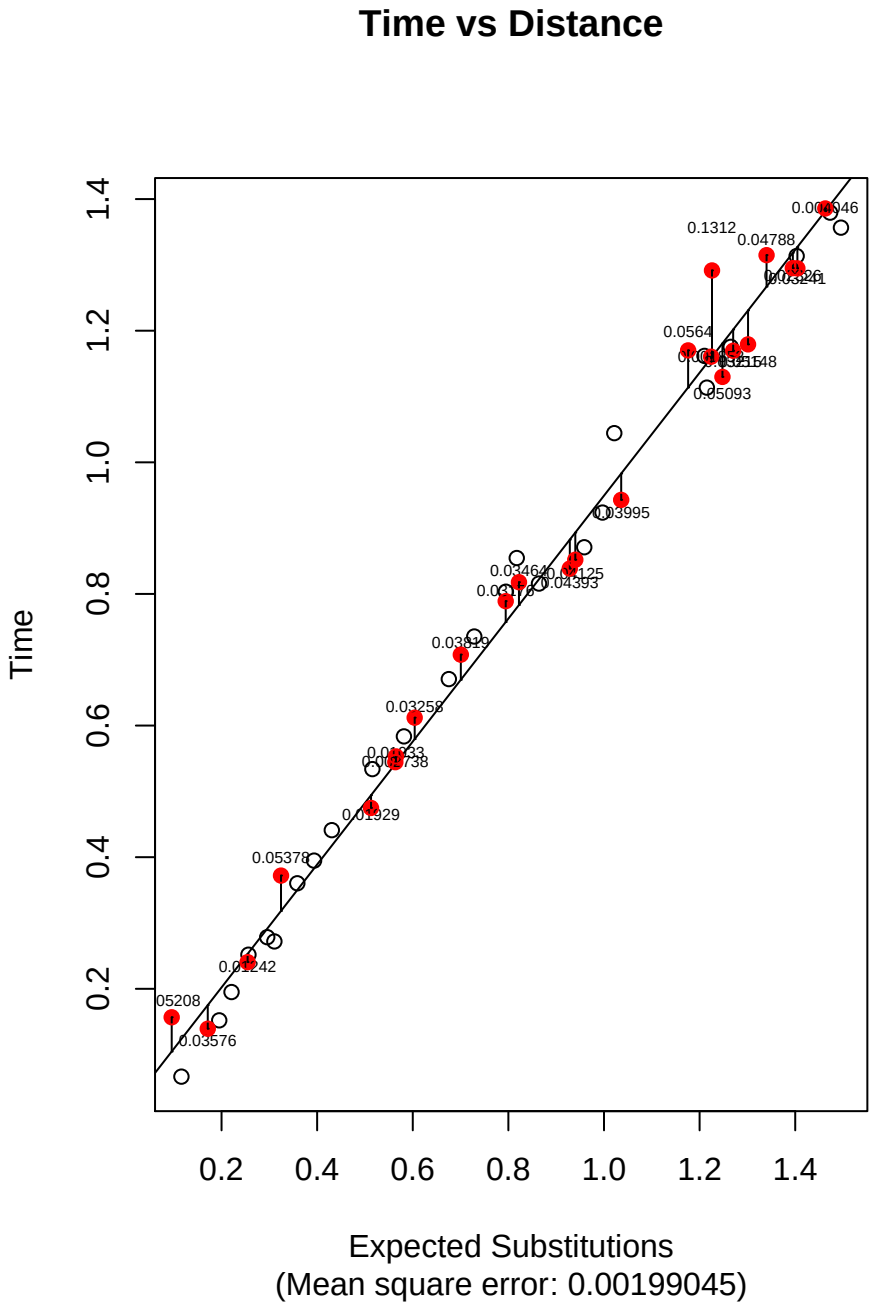

HIV RNA: Simulated−no.10 (Remove 25)
???
u11 t29 0.729074487799658
u30 t38 0.929023323673864
u31 t5 1.86682668368745
u2 t31 1.69774656470235
u27 t47 1.71969997002688
u6 t21 1.70815304063148
u29 t25 1.26160843118495
u20 t48 0.584489345428584
u37 t24 0.56579351252544
u43 t32 0.0738105719635663
u47 t4 0.541177092893835
u22 t50 2.74214944854987
u10 t41 2.55111500967795
u17 t39 2.53017471370429
u3 t20 2.50192697538626
u32 t49 2.32266007000307
u25 t15 2.17838686700601
u14 t2 1.71817256504929
u8 t11 1.58839612446027
u13 t43 1.5560678064765
u50 t1 1.22949462580724
u1 t37 1.05585246120228
u19 t34 1.38697504987946
u40 t46 1.00651210008448
u5 t18 0.337797444808846

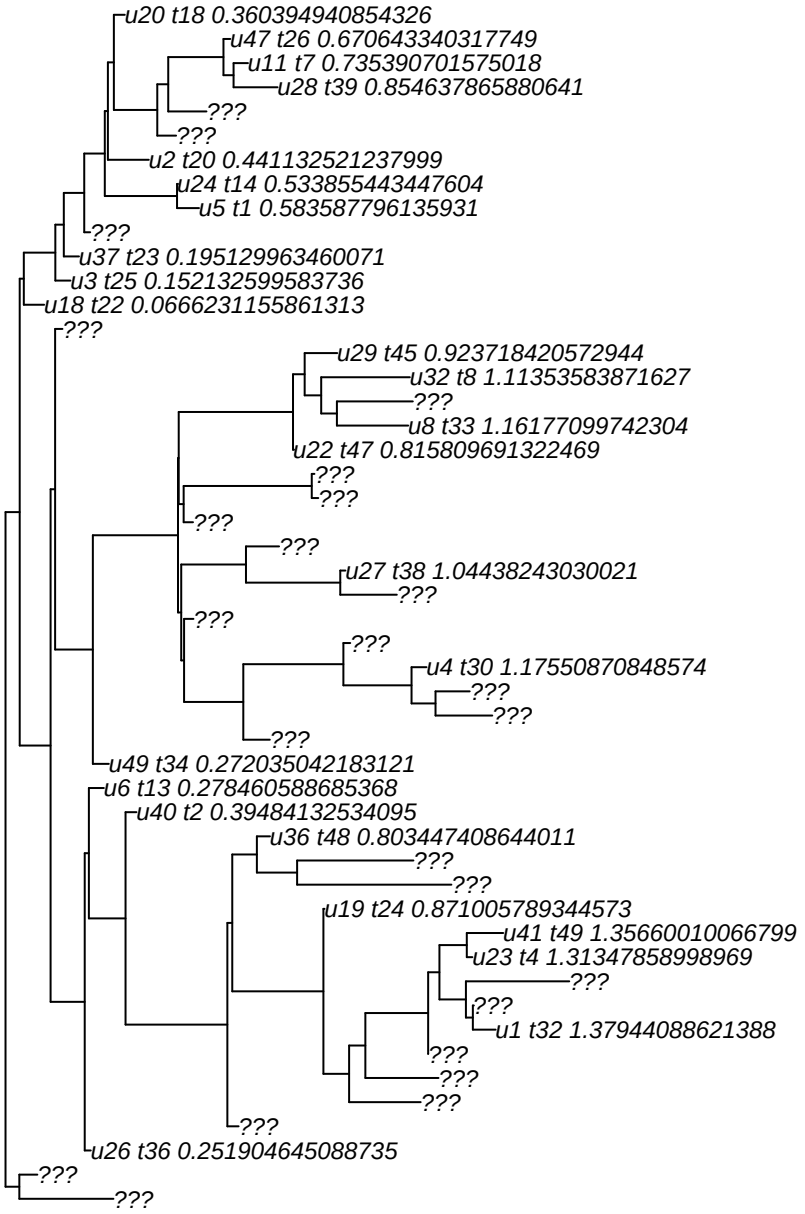

Time vs Distance
Time
0.5
1.0
1.5
2.0
2.5
3.0
3.5
Expected Substitutions
(Mean square error: 0.00231002)

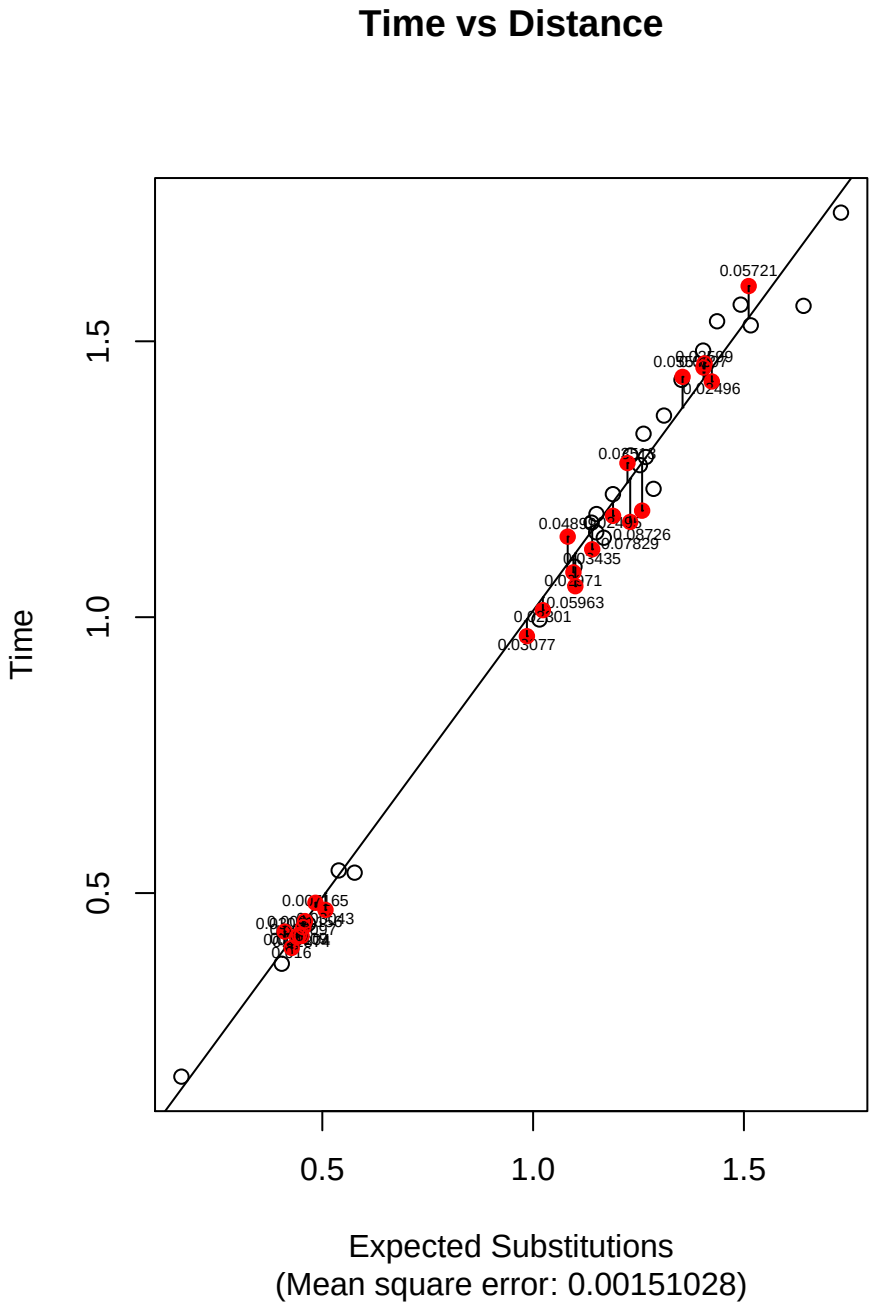

HIV RNA: Simulated−no.11 (Remove 25)
???
???
???
???
???
u42 t6 0.395127869825754
u13 t20 0.446717342359779
u46 t33 0.320942722309003
u41 t5 0.359647580063108
???
u6 t27 0.750743623395046
u2 t21 1.09969072176906
u10 t2 1.12840673628364
???
???
???
???
u30 t39 2.18450170750163
???
u37 t12 2.18695694279576
???
???
u49 t25 2.73242486167334
???
u9 t4 2.58413662546823
???
u5 t31 2.36722350860591
u15 t43 2.76264154295918
???
???
???
u21 t29 2.31054125445157
u7 t14 2.17037729033317
???
u19 t9 2.11176475289859
u11 t8 1.954044074648
???
u14 t35 1.89089835119776
???
???
???
u43 t49 3.03780853286366
u16 t47 2.85004632133346
u39 t19 2.98739358822244
u3 t10 2.36426594360353
???
u31 t26 1.53917598232867
u26 t36 1.3168456472078
u24 t1 0.981830241799747
???


Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00175582)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.06828
0.08997
0.02294
0.03936
0.03181
0.03342

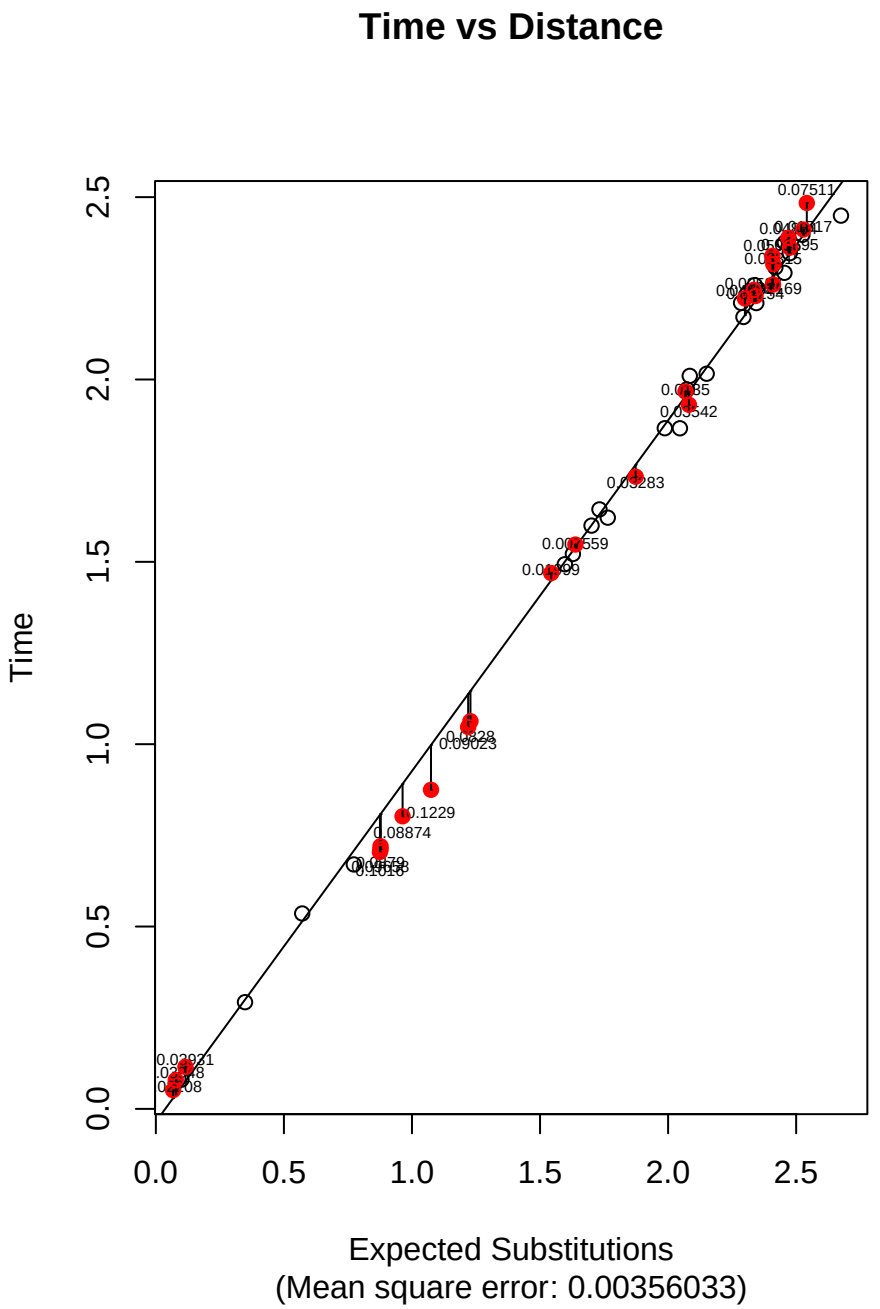

HIV RNA: Simulated−no.12 (Remove 25)
???
u6 t14 0.255344786871419
u25 t13 0.444233932973714
u4 t45 0.139866470534297
u50 t38 1.14903544693182
u20 t29 1.39527293173104
u13 t15 1.26185616307573
u16 t40 1.32631441644273
u46 t48 1.34245788134575
u37 t23 1.36053054517065
u43 t3 0.887764537622443
u11 t30 0.859756888461425
u8 t9 0.908256028967296
u28 t21 0.965964179931312
u12 t32 0.96152604448871
u7 t46 0.870916912294182
u14 t24 1.21362227195498
u2 t49 1.09937422293203
u36 t4 0.996673902449802
u31 t28 1.15499699642168
u24 t42 1.16846786157983
u5 t33 1.31733928077713
u35 t47 0.831761688195796
u49 t36 0.69752838875785
u32 t7 0.818768347531546
u40 t26 0.796923322424875

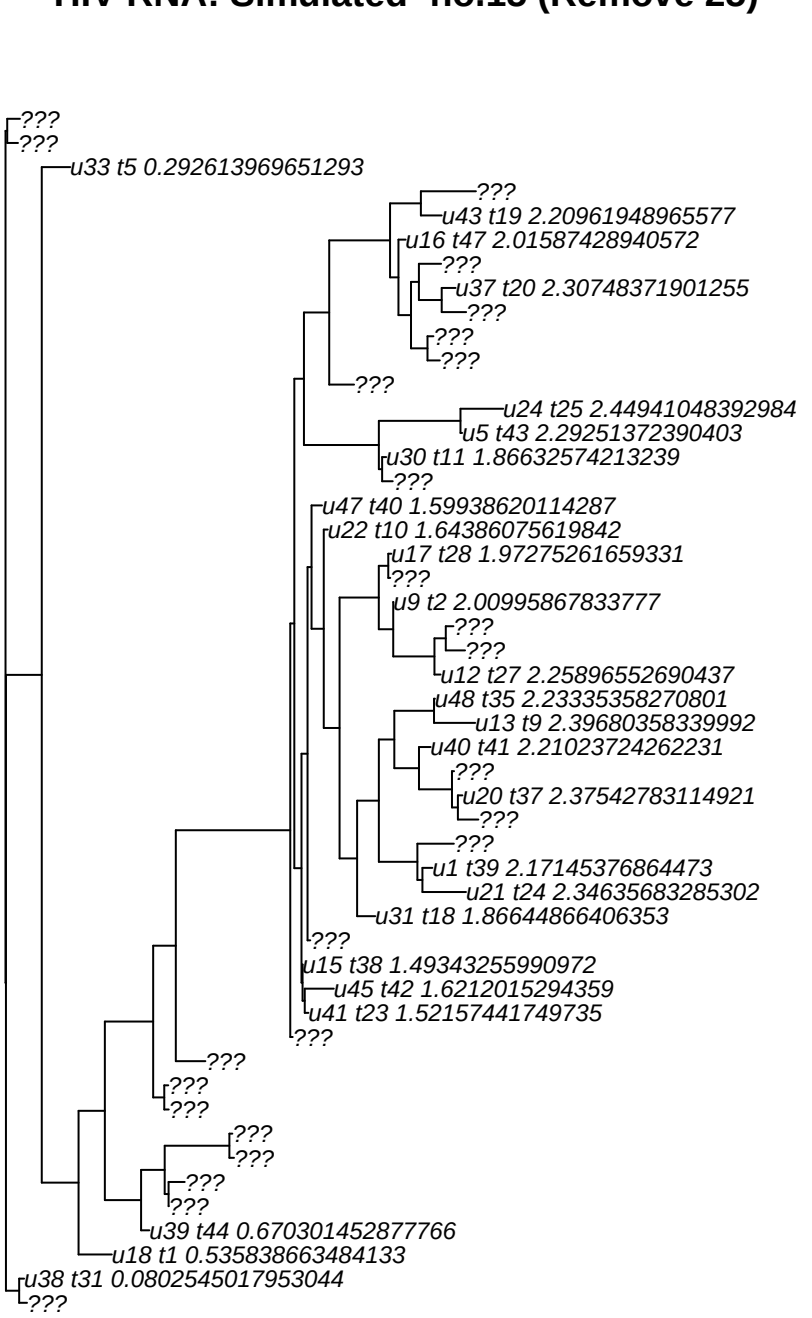

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00199045)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.1312
0.04788
0.0564
0.05093
0.03995
0.04393
0.03259
0.01929
0.05378
0.03576

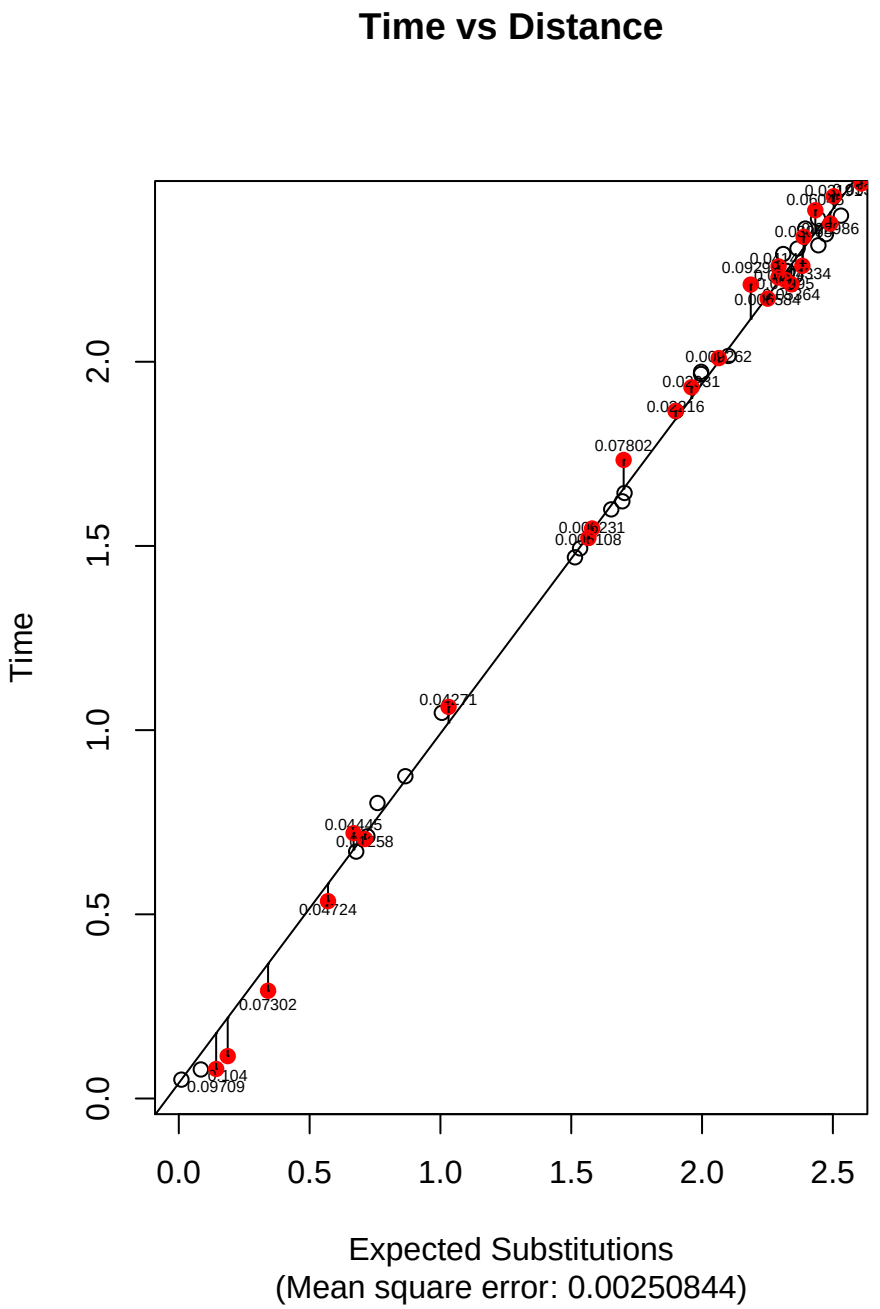

HIV RNA: Simulated−no.13 (Remove 25)
u20 t18 0.360394940854326
u47 t26 0.670643340317749
u11 t7 0.735390701575018
u28 t39 0.854637865880641
u2 t20 0.441132521237999
u24 t14 0.533855443447604
u5 t1 0.583587796135931
u37 t23 0.195129963460071
u3 t25 0.152132599583736
u18 t22 0.0666231155861313
u29 t45 0.923718420572944
u32 t8 1.11353583871627
u8 t33 1.16177099742304
u22 t47 0.815809691322469
u27 t38 1.04438243030021
u4 t30 1.17550870848574
u49 t34 0.272035042183121
u6 t13 0.278460588685368
u40 t2 0.39484132534095
u36 t48 0.803447408644011
u19 t24 0.871005789344573
u41 t49 1.35660010066799
u23 t4 1.31347858998969
u1 t32 1.37944088621388
u26 t36 0.251904645088735

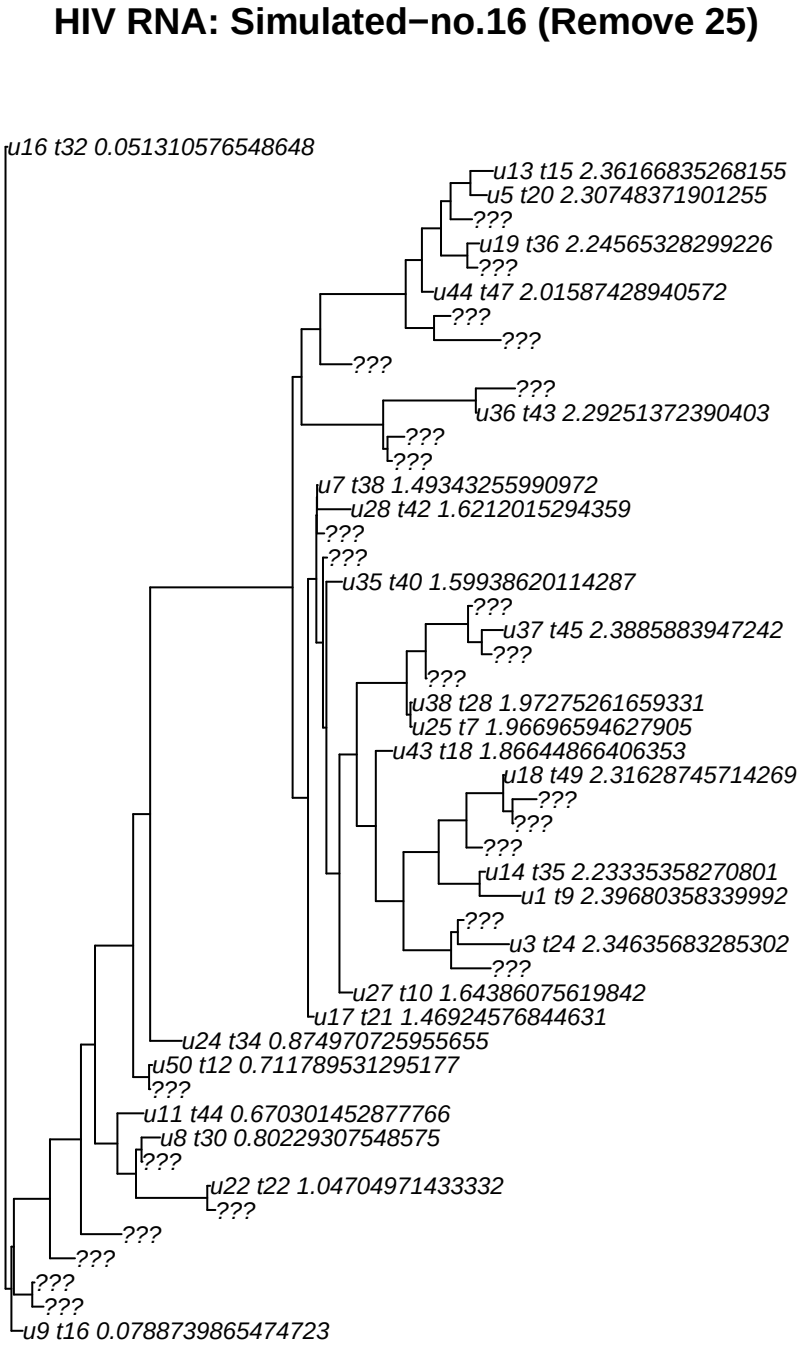

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00151028)

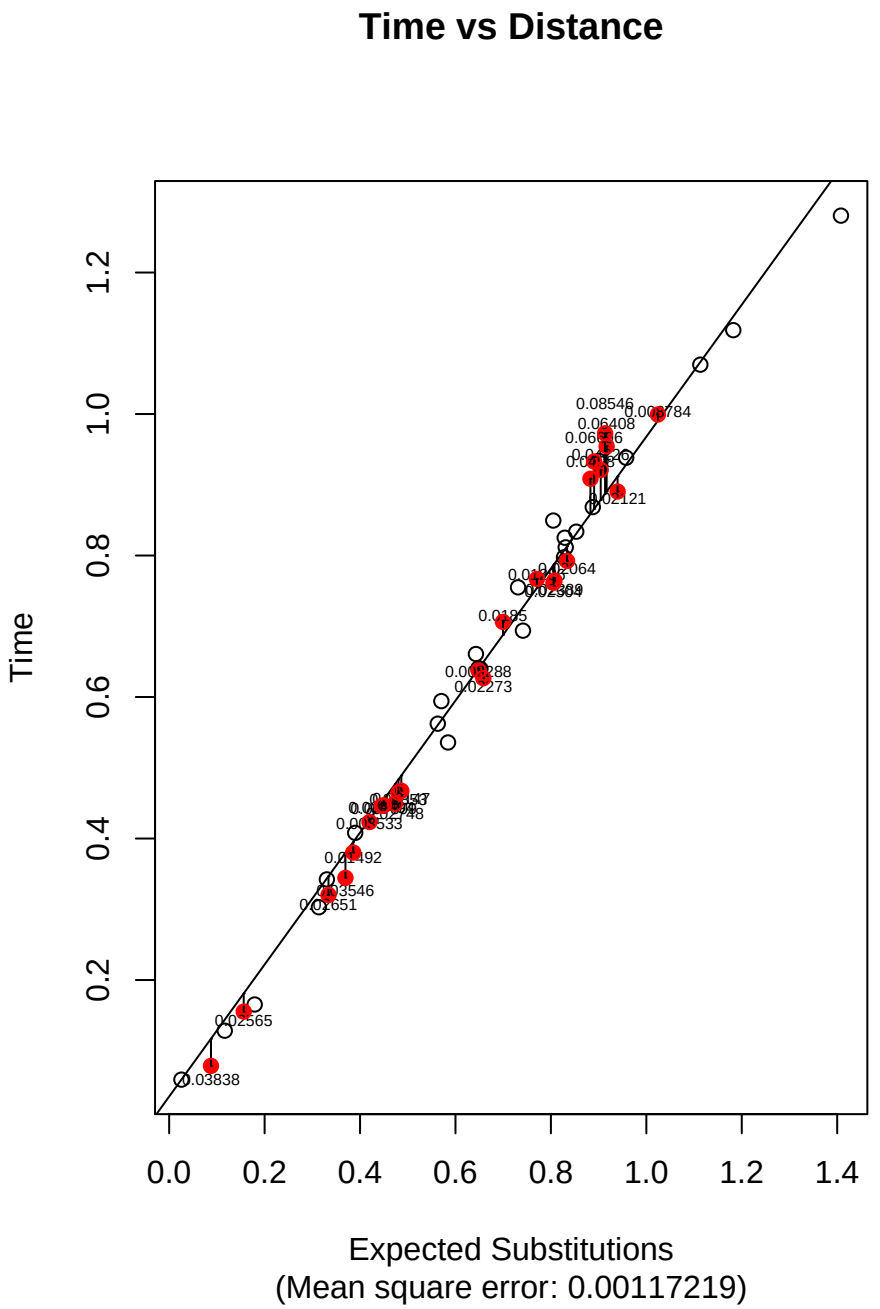
HIV RNA: Simulated−no.14 (Remove 25)
u50 t7 0.444330470738978
u10 t12 0.537058771070428
???
u4 t26 1.73320939807331
u11 t16 1.53630865799926
???
???
u22 t3 1.29314356793582
u49 t24 1.52891949199316
???
u38 t18 1.3324892788367
u47 t46 1.43018713441856
u29 t1 1.56646557415117
???
???
u14 t28 1.48317203786075
u32 t34 1.36540341062566
???
u3 t32 0.541078598713389
???
???
???
u21 t48 1.144006133626
u36 t10 1.56422132307426
???
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
???
???
???
???
???
u26 t41 0.995859643782152
???
u7 t11 1.23263469954763
???
???
???
???
???
???
u5 t2 0.372005063244874
u23 t39 0.167424685601066
???
???

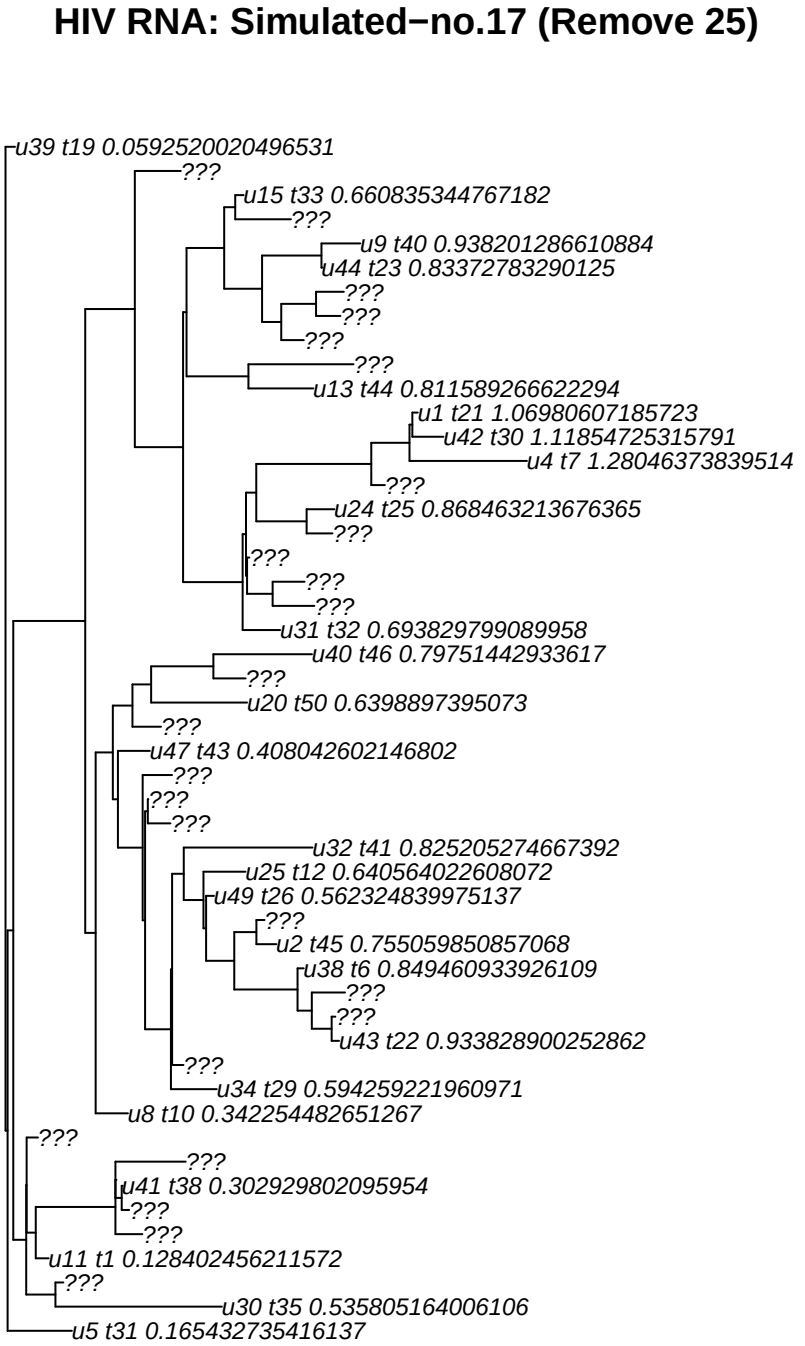

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
Expected Substitutions
(Mean square error: 0.00356033)

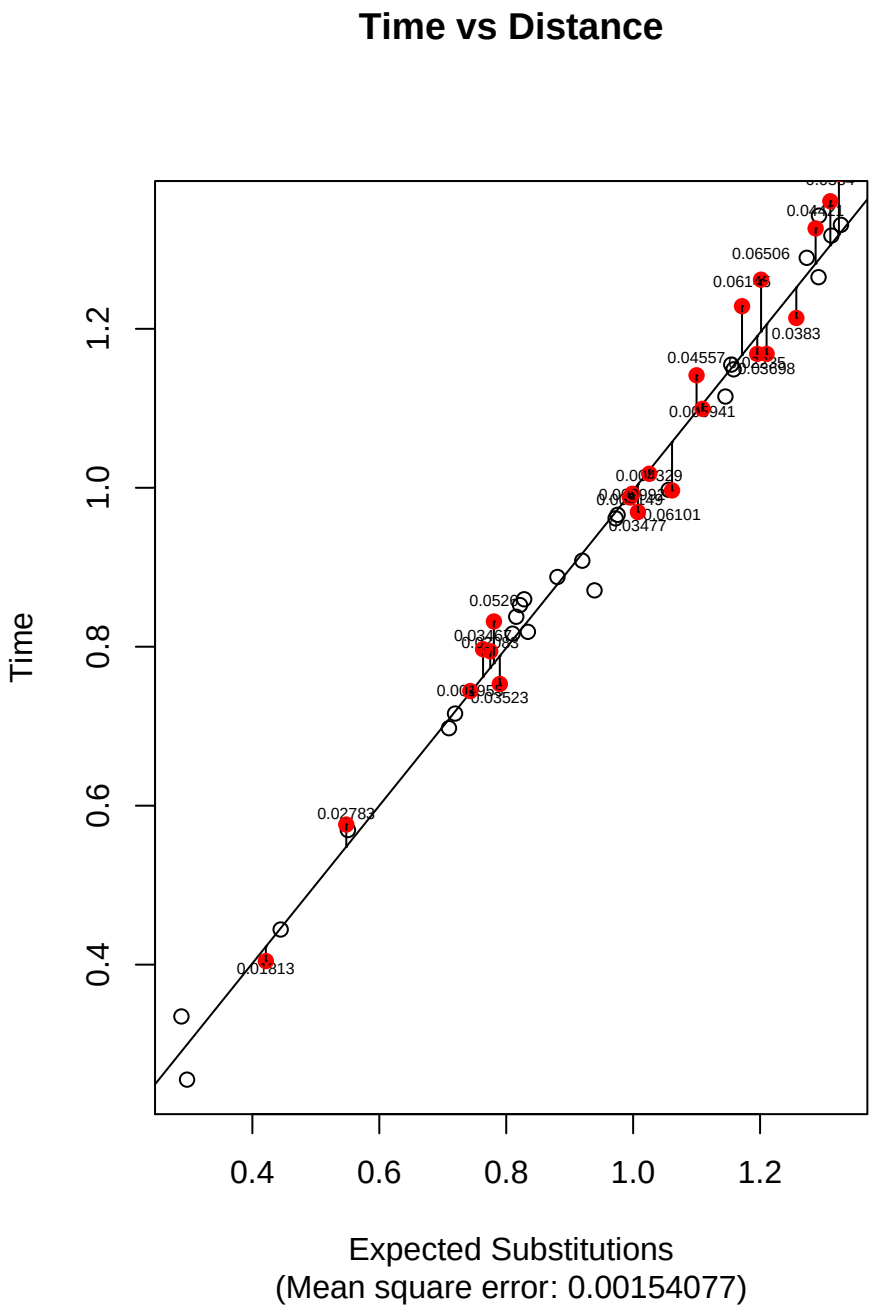

HIV RNA: Simulated−no.15 (Remove 25)
???
u33 t5 0.292613969651293
u43 t19 2.20961948965577
u16 t47 2.01587428940572
u37 t20 2.30748371901255
u24 t25 2.44941048392984
u5 t43 2.29251372390403
u30 t11 1.86632574213239
u47 t40 1.59938620114287
u22 t10 1.64386075619842
u17 t28 1.97275261659331
u9 t2 2.00995867833777
u12 t27 2.25896552690437
u48 t35 2.23335358270801
u13 t9 2.39680358339992
u40 t41 2.21023724262231
u20 t37 2.37542783114921
u1 t39 2.17145376864473
u21 t24 2.34635683285302
u31 t18 1.86644866406353
u15 t38 1.49343255990972
u45 t42 1.6212015294359
u41 t23 1.52157441749735
u39 t44 0.670301452877766
u18 t1 0.535838663484133
u38 t31 0.0802545017953044

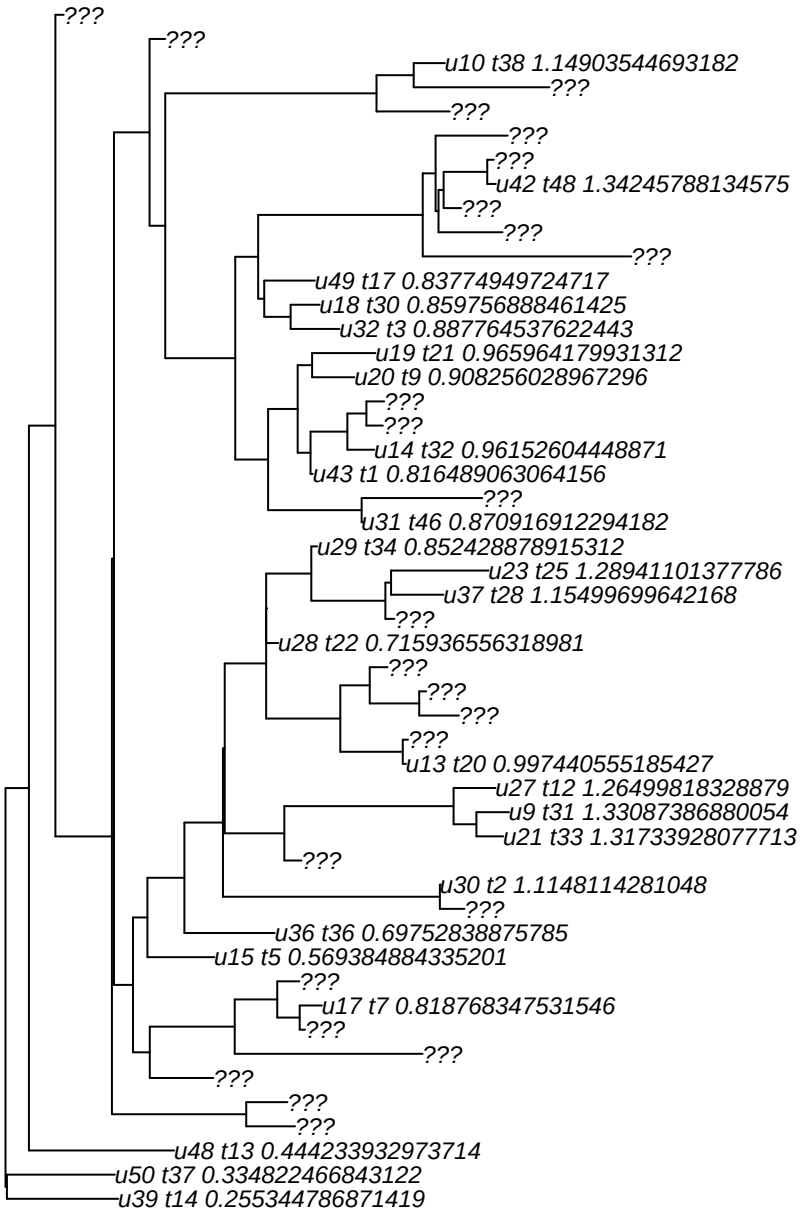

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
0.0
0.5
1.0
1.5
2.0
2.5
Expected Substitutions
(Mean square error: 0.00250844)
0.09709
0.07302
0.04724
0.04271
0.07802

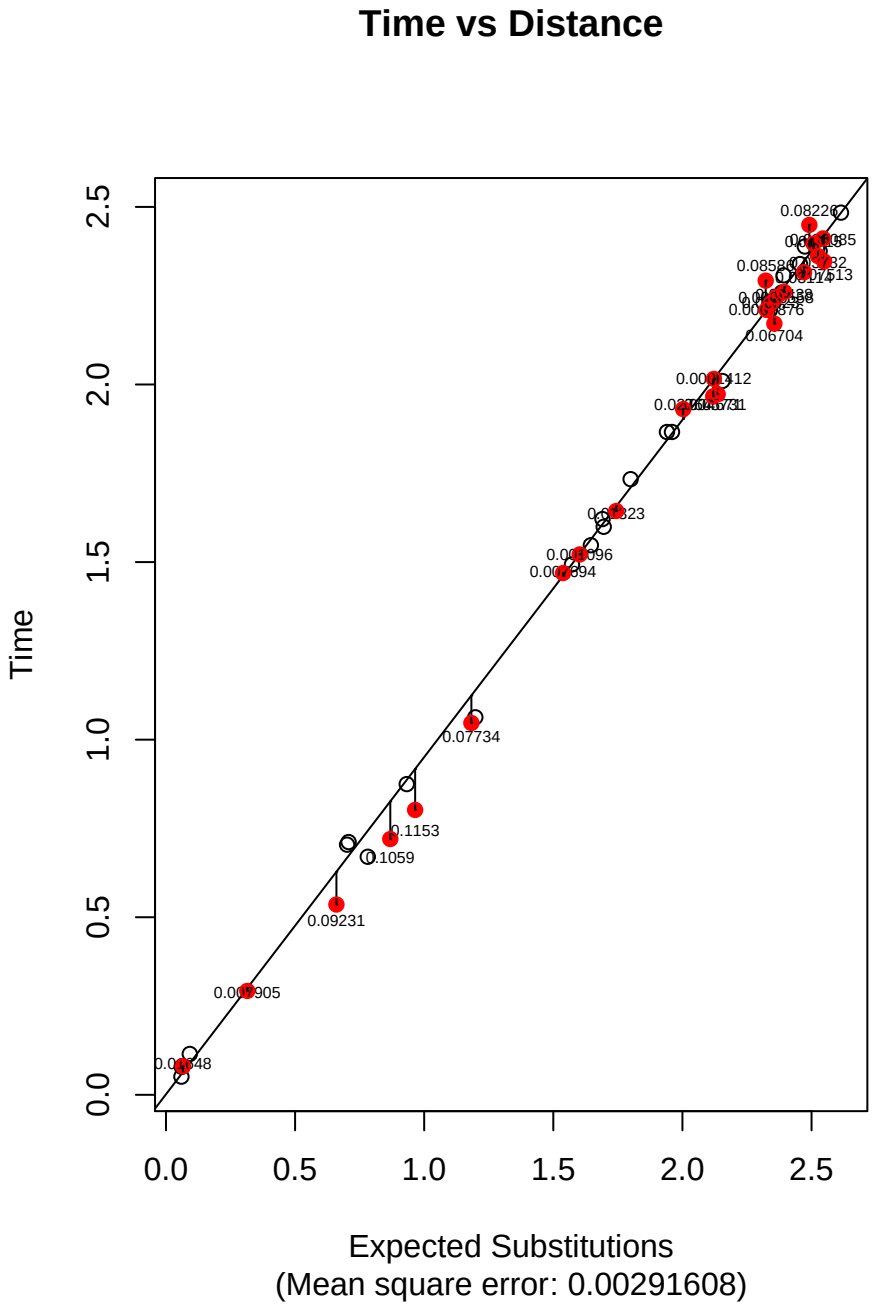

HIV RNA: Simulated−no.16 (Remove 25)
u16 t32 0.051310576548648
u13 t15 2.36166835268155
u5 t20 2.30748371901255
u19 t36 2.24565328299226
u44 t47 2.01587428940572
u36 t43 2.29251372390403
u7 t38 1.49343255990972
u28 t42 1.6212015294359
u35 t40 1.59938620114287
u37 t45 2.3885883947242
u38 t28 1.97275261659331
u25 t7 1.96696594627905
u43 t18 1.86644866406353
u18 t49 2.31628745714269
u14 t35 2.23335358270801
u1 t9 2.39680358339992
u3 t24 2.34635683285302
u27 t10 1.64386075619842
u17 t21 1.46924576844631
u24 t34 0.874970725955655
u50 t12 0.711789531295177
u11 t44 0.670301452877766
u8 t30 0.80229307548575
u22 t22 1.04704971433332
u9 t16 0.0788739865474723

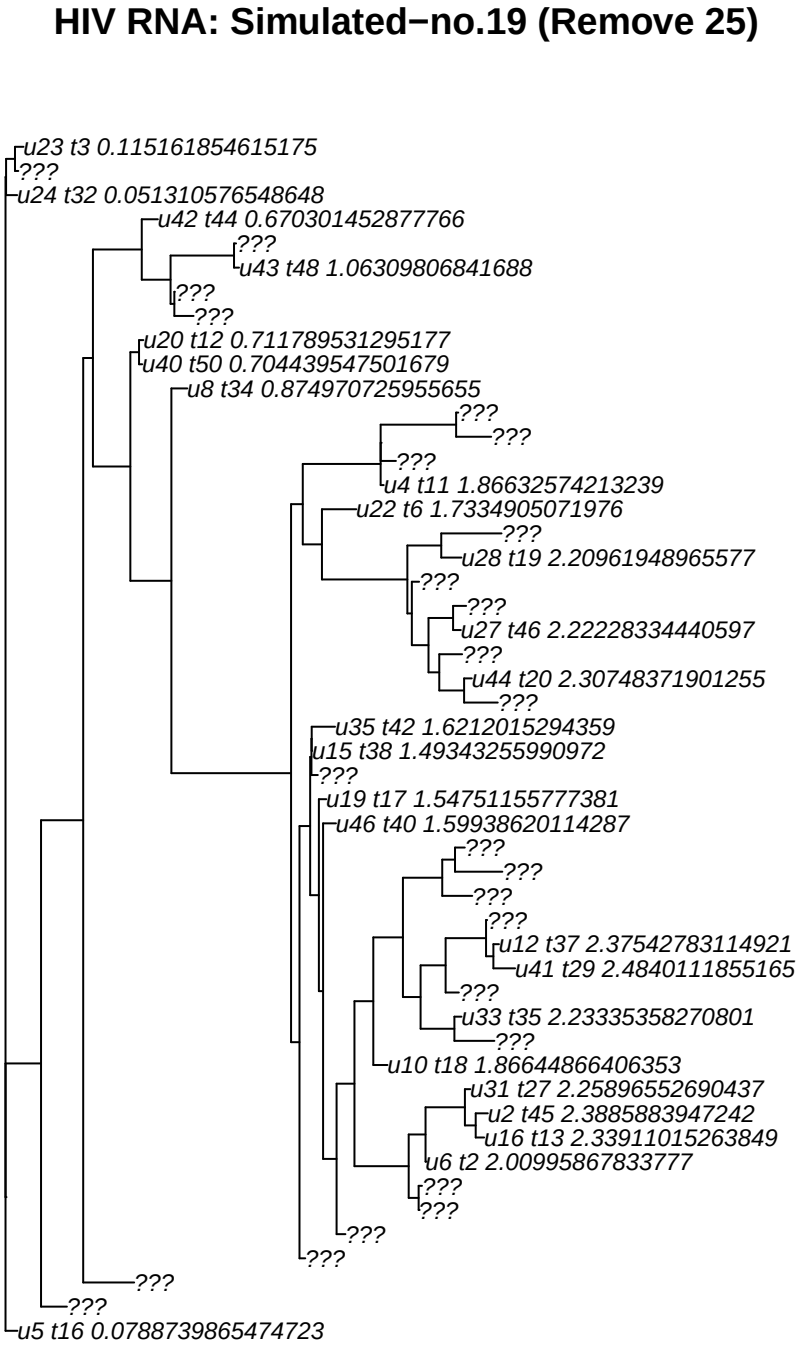

Time vs Distance
Time
0.2
0.4
0.6
0.8
1.0
1.2
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Expected Substitutions
(Mean square error: 0.00117219)

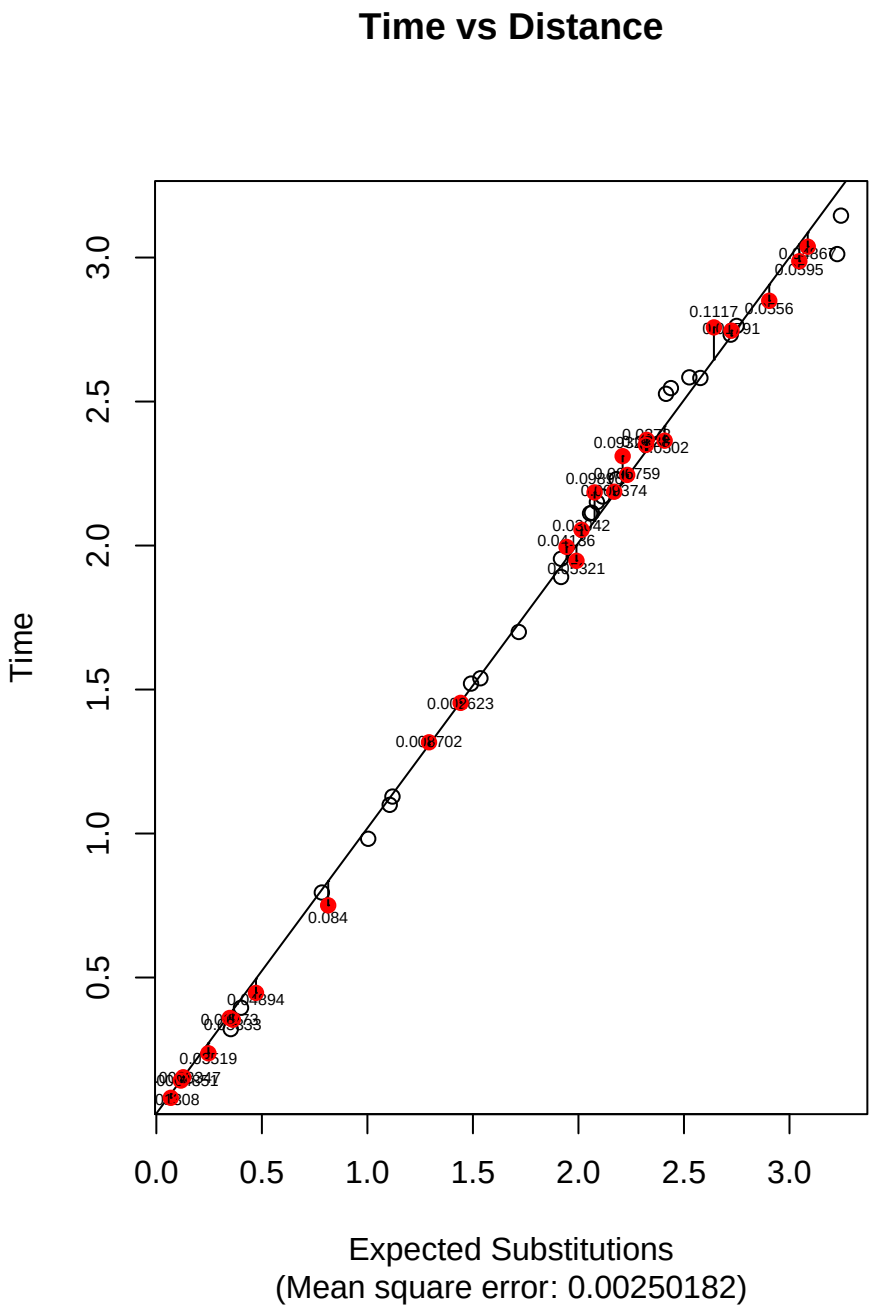

HIV RNA: Simulated−no.17 (Remove 25)
u39 t19 0.0592520020496531
???
u15 t33 0.660835344767182
???
u9 t40 0.938201286610884
u44 t23 0.83372783290125
???
???
???
???
u13 t44 0.811589266622294
u1 t21 1.06980607185723
u42 t30 1.11854725315791
u4 t7 1.28046373839514
???
u24 t25 0.868463213676365
???
???
???
???
u31 t32 0.693829799089958
u40 t46 0.79751442933617
???
u20 t50 0.6398897395073
???
u47 t43 0.408042602146802
???
???
???
u32 t41 0.825205274667392
u25 t12 0.640564022608072
u49 t26 0.562324839975137
???
u2 t45 0.755059850857068
u38 t6 0.849460933926109
???
???
u43 t22 0.933828900252862
???
u34 t29 0.594259221960971
u8 t10 0.342254482651267
???
???
u41 t38 0.302929802095954
???
???
u11 t1 0.128402456211572
???
u30 t35 0.535805164006106
u5 t31 0.165432735416137

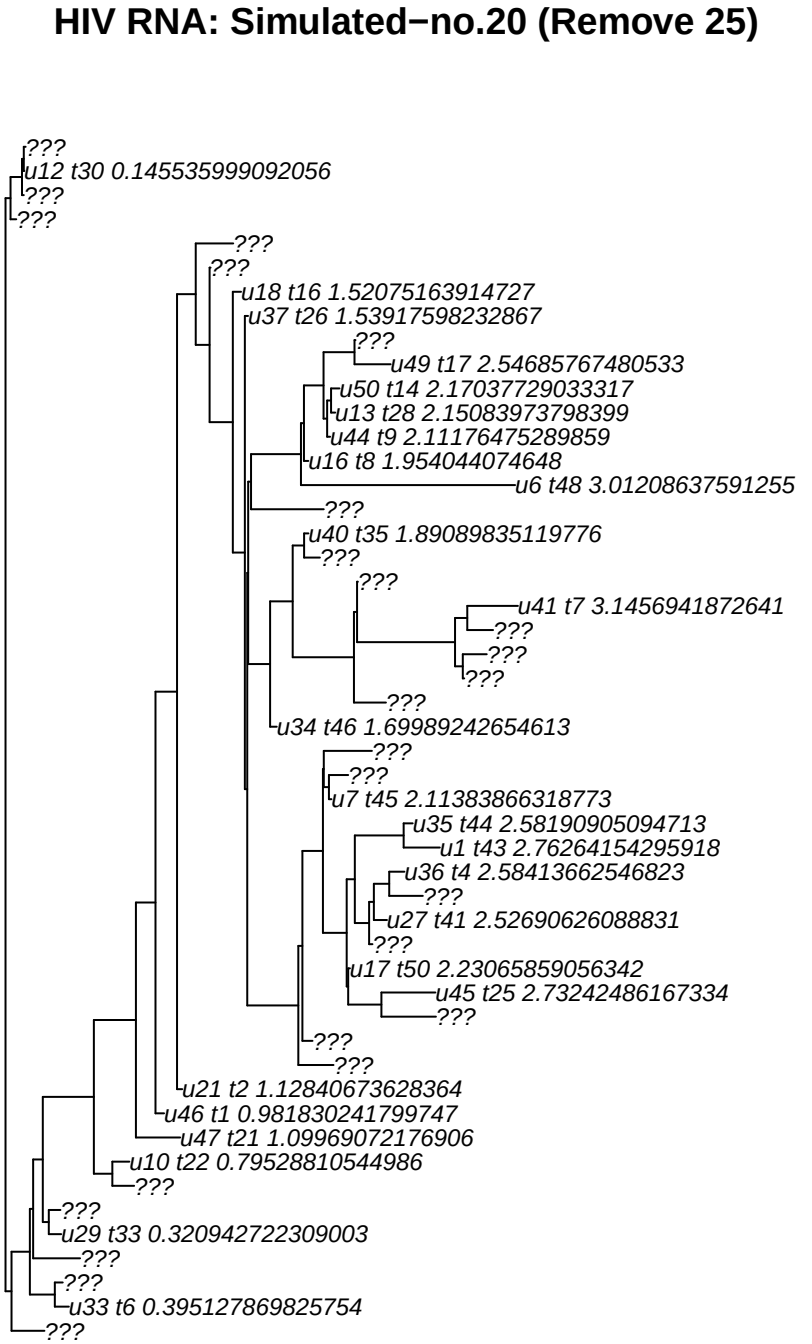

Time vs Distance
Time
0.4
0.6
0.8
1.0
1.2
0.4
0.6
0.8
1.0
1.2
Expected Substitutions
(Mean square error: 0.00154077)
0.06506
0.0383
0.04557
0.06101
0.03477
0.0526
0.03523
0.02783
0.01813

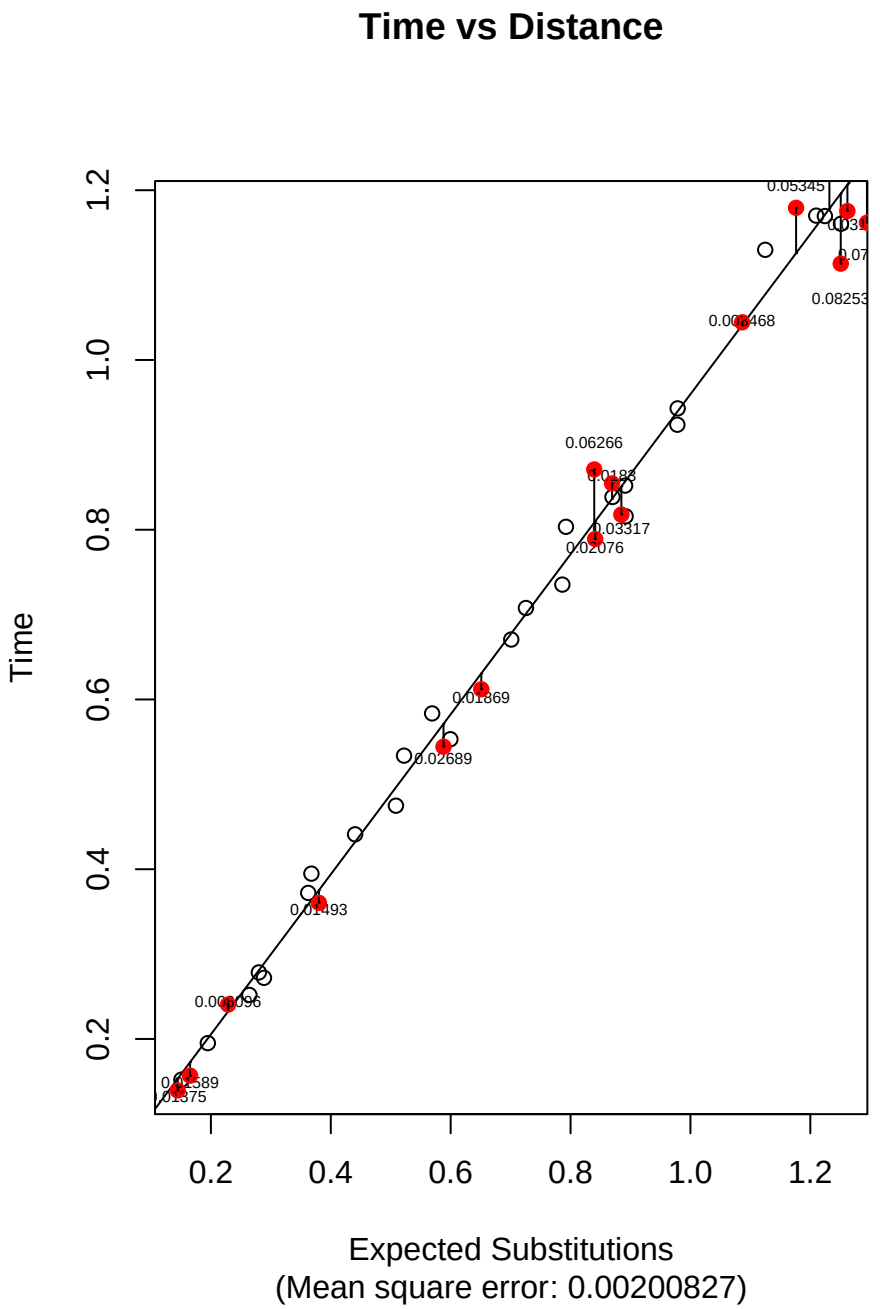

HIV RNA: Simulated−no.18 (Remove 25)
???
???
u10 t38 1.14903544693182
???
???
???
???
u42 t48 1.34245788134575
???
???
???
u49 t17 0.83774949724717
u18 t30 0.859756888461425
u32 t3 0.887764537622443
u19 t21 0.965964179931312
u20 t9 0.908256028967296
???
???
u14 t32 0.96152604448871
u43 t1 0.816489063064156
???
u31 t46 0.870916912294182
u29 t34 0.852428878915312
u23 t25 1.28941101377786
u37 t28 1.15499699642168
???
u28 t22 0.715936556318981
???
???
???
???
u13 t20 0.997440555185427
u27 t12 1.26499818328879
u9 t31 1.33087386880054
u21 t33 1.31733928077713
???
u30 t2 1.1148114281048
???
u36 t36 0.69752838875785
u15 t5 0.569384884335201
???
u17 t7 0.818768347531546
???
???
???
???
???
u48 t13 0.444233932973714
u50 t37 0.334822466843122
u39 t14 0.255344786871419

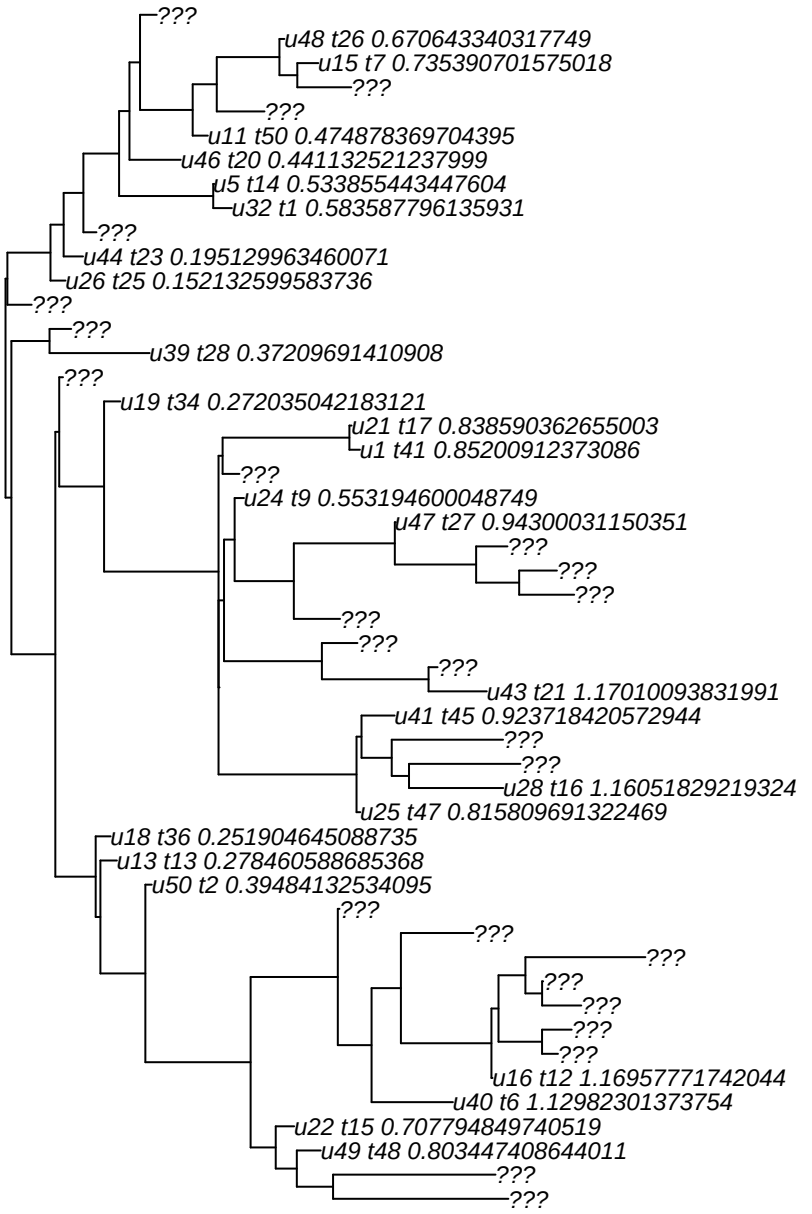

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
0.08226
0.06704
0.07734
0.1153
0.1059
0.09231
Expected Substitutions
(Mean square error: 0.00291608)

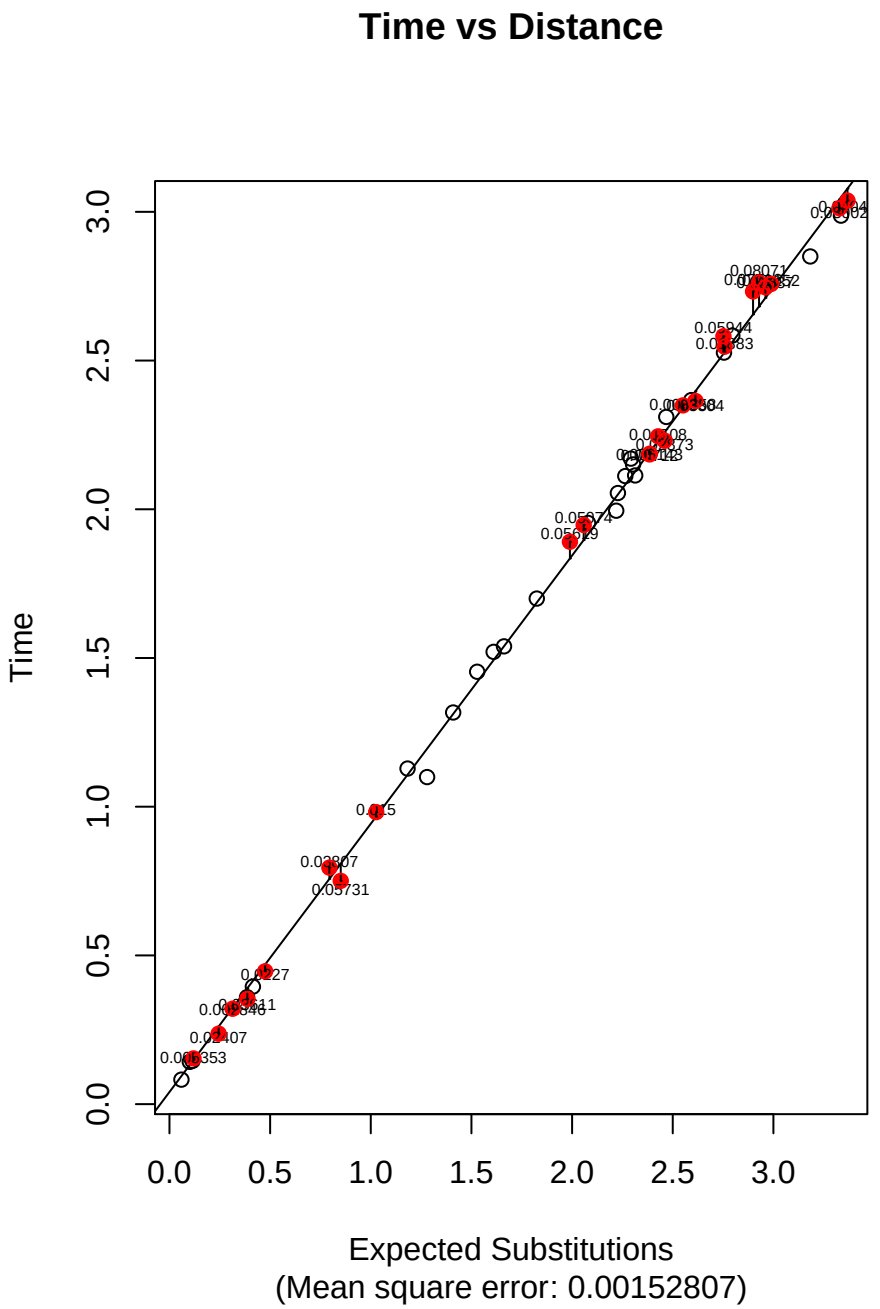

HIV RNA: Simulated−no.19 (Remove 25)
u23 t3 0.115161854615175
???
u24 t32 0.051310576548648
u42 t44 0.670301452877766
???
u43 t48 1.06309806841688
???
???
u20 t12 0.711789531295177
u40 t50 0.704439547501679
u8 t34 0.874970725955655
???
???
???
u4 t11 1.86632574213239
u22 t6 1.7334905071976
???
u28 t19 2.20961948965577
???
???
u27 t46 2.22228334440597
???
u44 t20 2.30748371901255
???
u35 t42 1.6212015294359
u15 t38 1.49343255990972
???
u19 t17 1.54751155777381
u46 t40 1.59938620114287
???
???
???
???
u12 t37 2.37542783114921
u41 t29 2.4840111855165
???
u33 t35 2.23335358270801
???
u10 t18 1.86644866406353
u31 t27 2.25896552690437
u2 t45 2.3885883947242
u16 t13 2.33911015263849
u6 t2 2.00995867833777
???
???
???
???
???
???
u5 t16 0.0788739865474723


Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Expected Substitutions
(Mean square error: 0.00250182)


HIV RNA: Simulated−no.20 (Remove 25)
???
u12 t30 0.145535999092056
???
???
???
???
u18 t16 1.52075163914727
u37 t26 1.53917598232867
???
u49 t17 2.54685767480533
u50 t14 2.17037729033317
u13 t28 2.15083973798399
u44 t9 2.11176475289859
u16 t8 1.954044074648
u6 t48 3.01208637591255
???
u40 t35 1.89089835119776
???
???
u41 t7 3.1456941872641
???
???
???
???
u34 t46 1.69989242654613
???
???
u7 t45 2.11383866318773
u35 t44 2.58190905094713
u1 t43 2.76264154295918
u36 t4 2.58413662546823
???
u27 t41 2.52690626088831
???
u17 t50 2.23065859056342
u45 t25 2.73242486167334
???
???
???
u21 t2 1.12840673628364
u46 t1 0.981830241799747
u47 t21 1.09969072176906
u10 t22 0.79528810544986
???
???
u29 t33 0.320942722309003
???
???
u33 t6 0.395127869825754
???


Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00200827)
0.2
0.4
0.6
0.8
1.0
1.2
0.05345
0.08253
0.06266
0.03317
0.02076
0.01869
0.02689
0.01493
0.01375


HIV RNA: Simulated−no.21 (Remove 25)
???
u48 t26 0.670643340317749
u15 t7 0.735390701575018
u11 t50 0.474878369704395
u46 t20 0.441132521237999
u5 t14 0.533855443447604
u32 t1 0.583587796135931
u44 t23 0.195129963460071
u26 t25 0.152132599583736
u39 t28 0.37209691410908
u19 t34 0.272035042183121
u21 t17 0.838590362655003
u1 t41 0.85200912373086
u24 t9 0.553194600048749
u47 t27 0.94300031150351
u43 t21 1.17010093831991
u41 t45 0.923718420572944
u28 t16 1.16051829219324
u25 t47 0.815809691322469
u18 t36 0.251904645088735
u13 t13 0.278460588685368
u50 t2 0.39484132534095
u16 t12 1.16957771742044
u40 t6 1.12982301373754
u22 t15 0.707794849740519
u49 t48 0.803447408644011


Time vs Distance
Time
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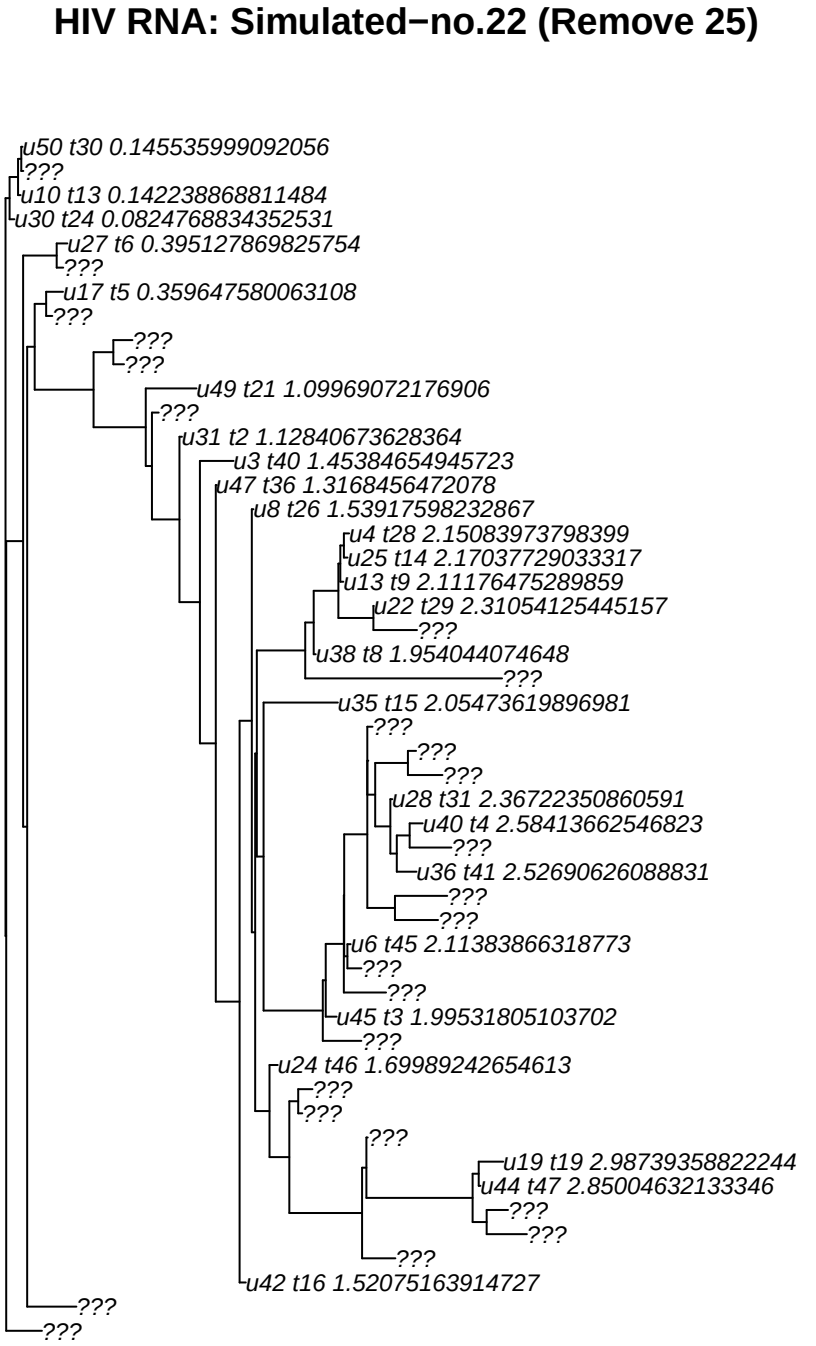
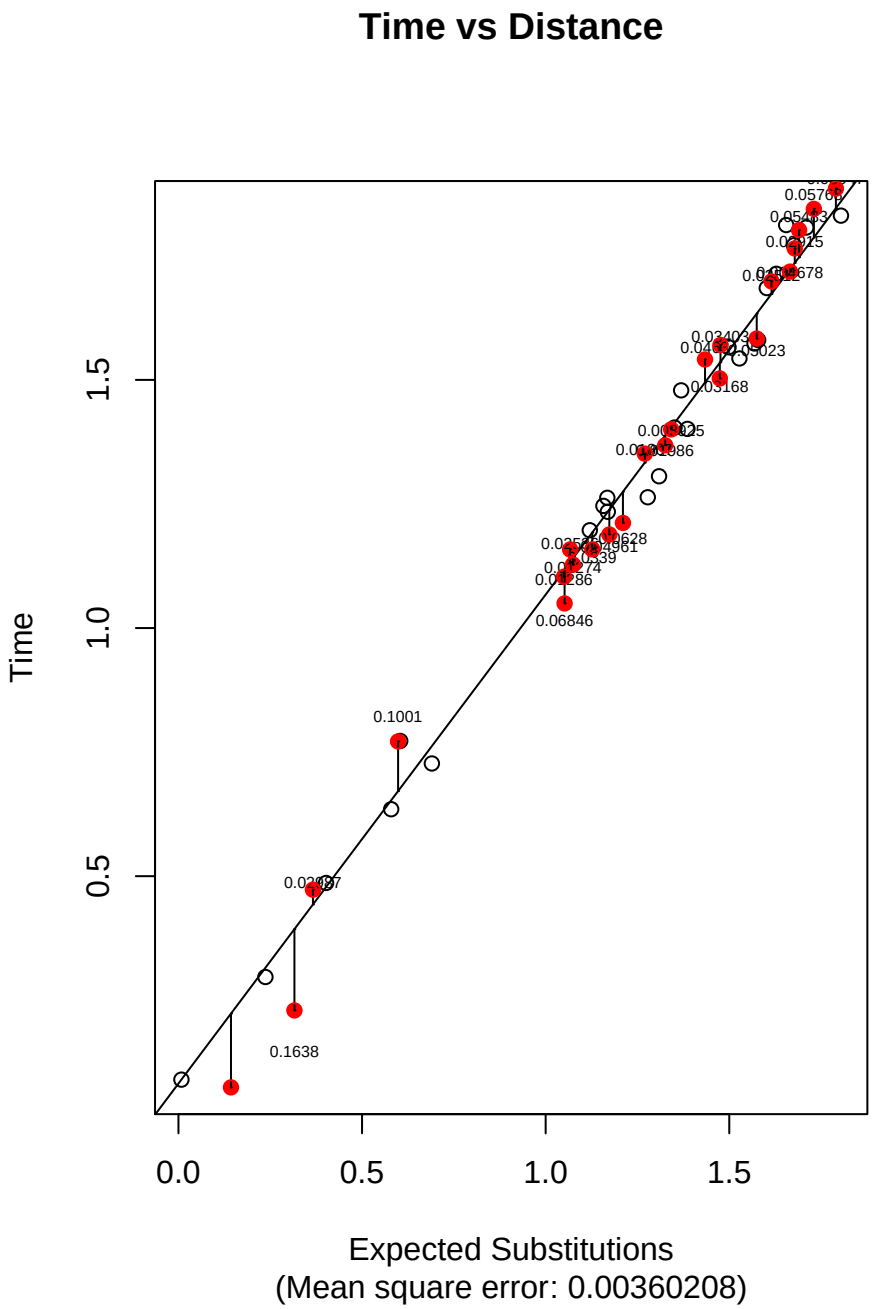
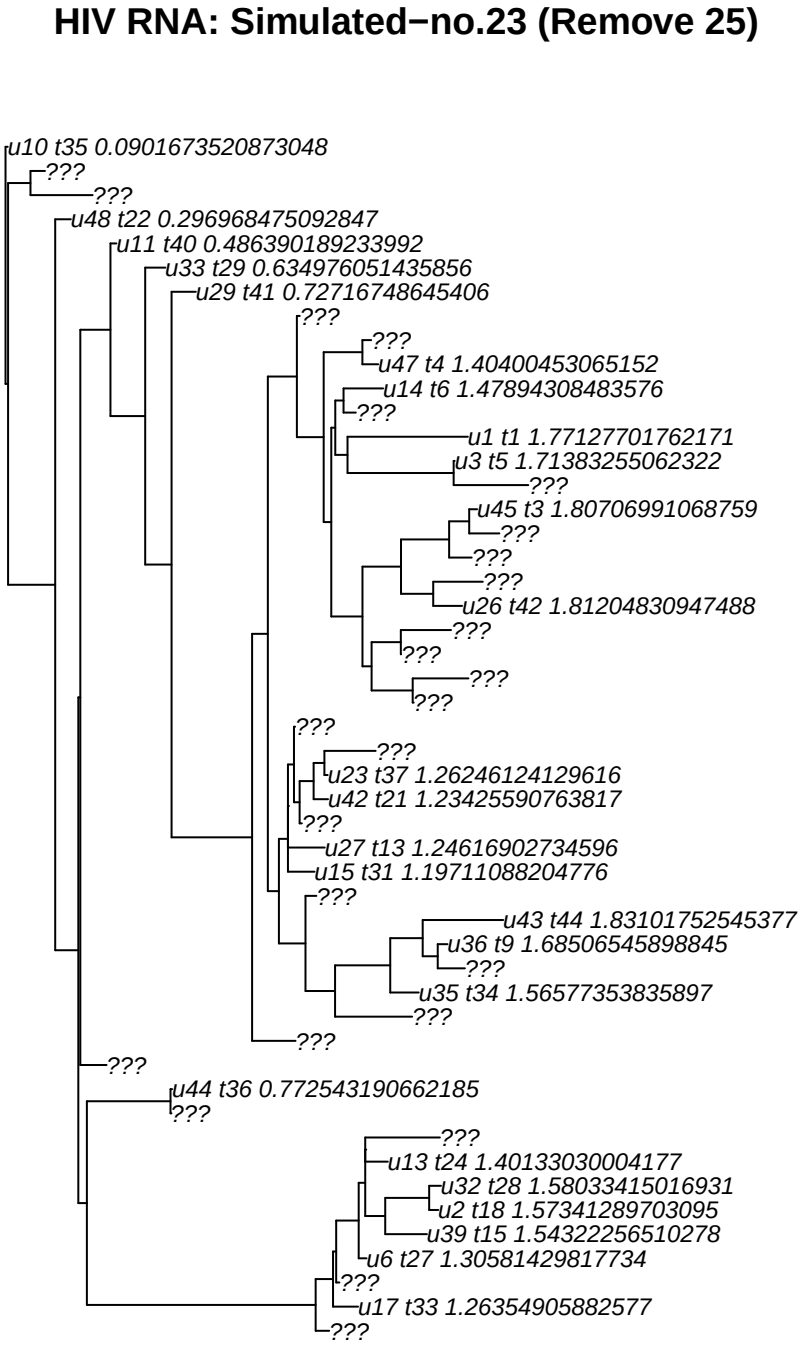
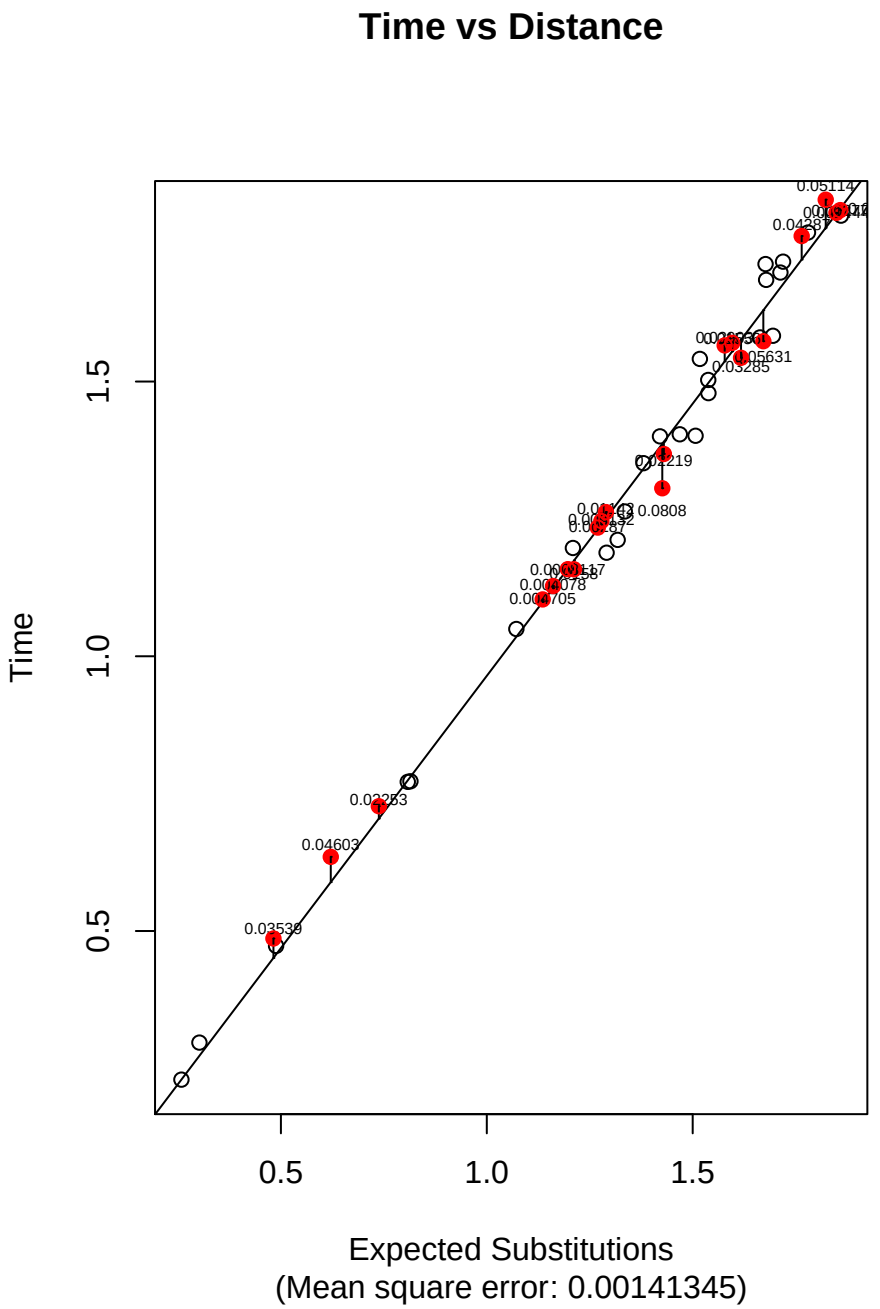
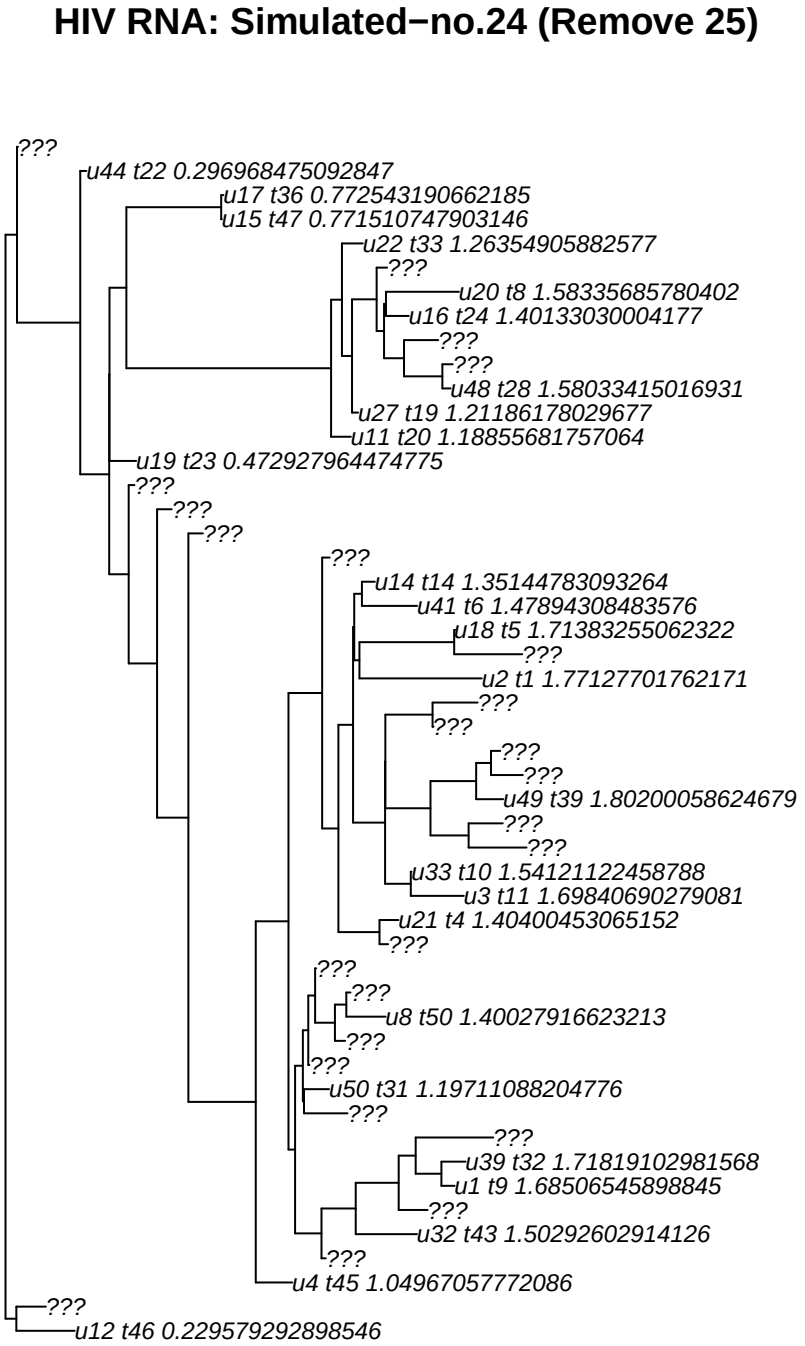
0.5
1.0
1.5
2.0
2.5
3.0
Expected Substitutions
(Mean square error: 0.00152807)

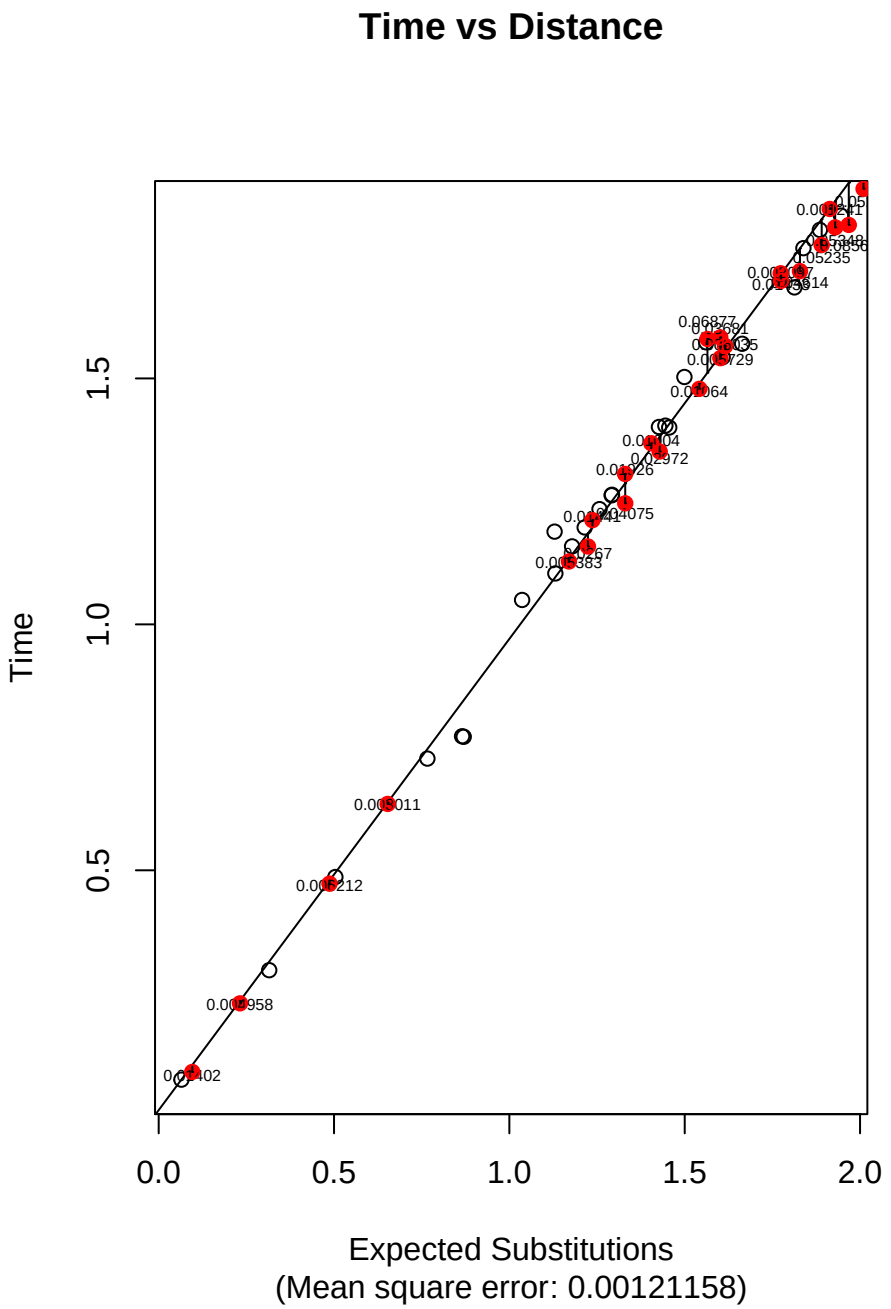

HIV RNA: Simulated−no.22 (Remove 25)
u50 t30 0.145535999092056
???
u10 t13 0.142238868811484
u30 t24 0.0824768834352531
u27 t6 0.395127869825754
???
u17 t5 0.359647580063108
???
???
???
u49 t21 1.09969072176906
???
u31 t2 1.12840673628364
u3 t40 1.45384654945723
u47 t36 1.3168456472078
u8 t26 1.53917598232867
u4 t28 2.15083973798399
u25 t14 2.17037729033317
u13 t9 2.11176475289859
u22 t29 2.31054125445157
???
u38 t8 1.954044074648
???
u35 t15 2.05473619896981
???
???
???
u28 t31 2.36722350860591
u40 t4 2.58413662546823
???
u36 t41 2.52690626088831
???
???
u6 t45 2.11383866318773
???
???
u45 t3 1.99531805103702
???
u24 t46 1.69989242654613
???
???
???
u19 t19 2.98739358822244
u44 t47 2.85004632133346
???
???
???
u42 t16 1.52075163914727
???
???

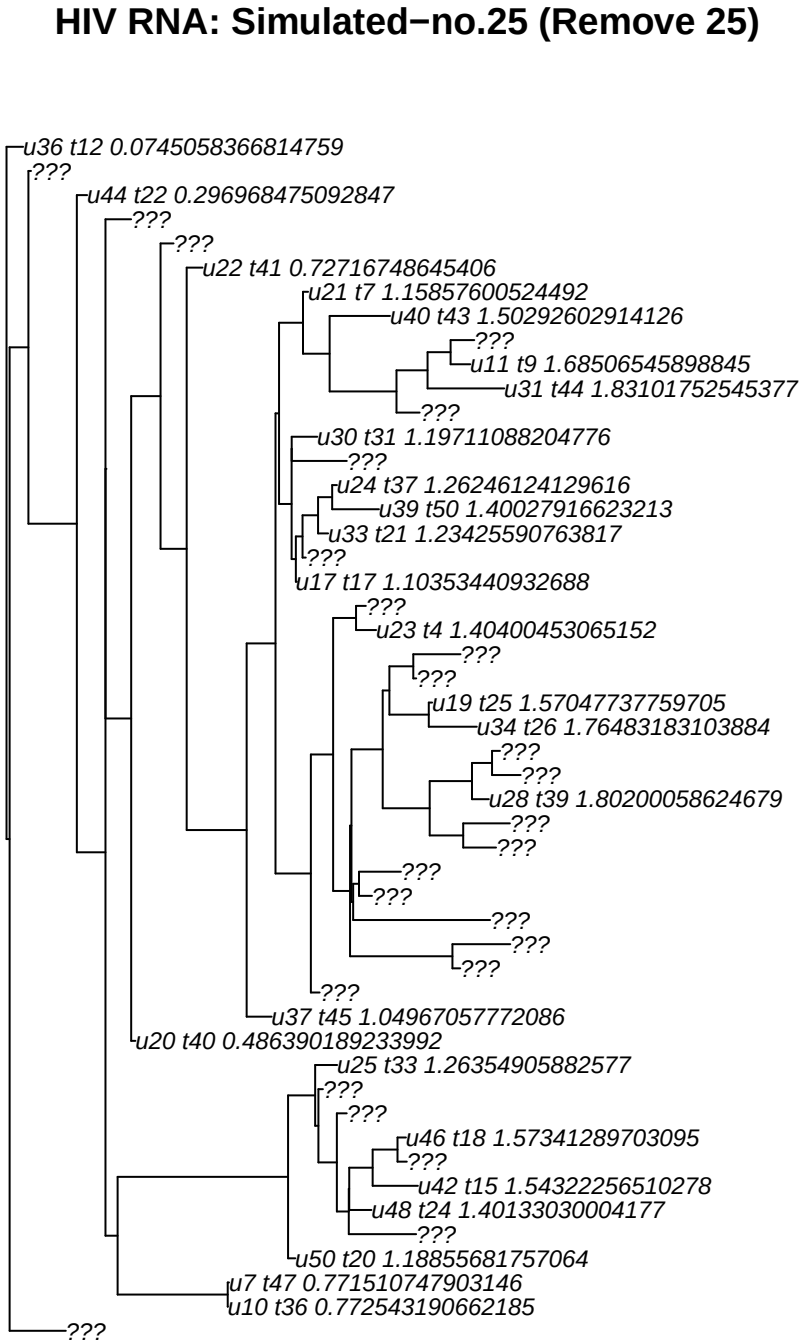

Time vs Distance
Time
0.0
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00360208)
0.1001
0.1638
0.06846

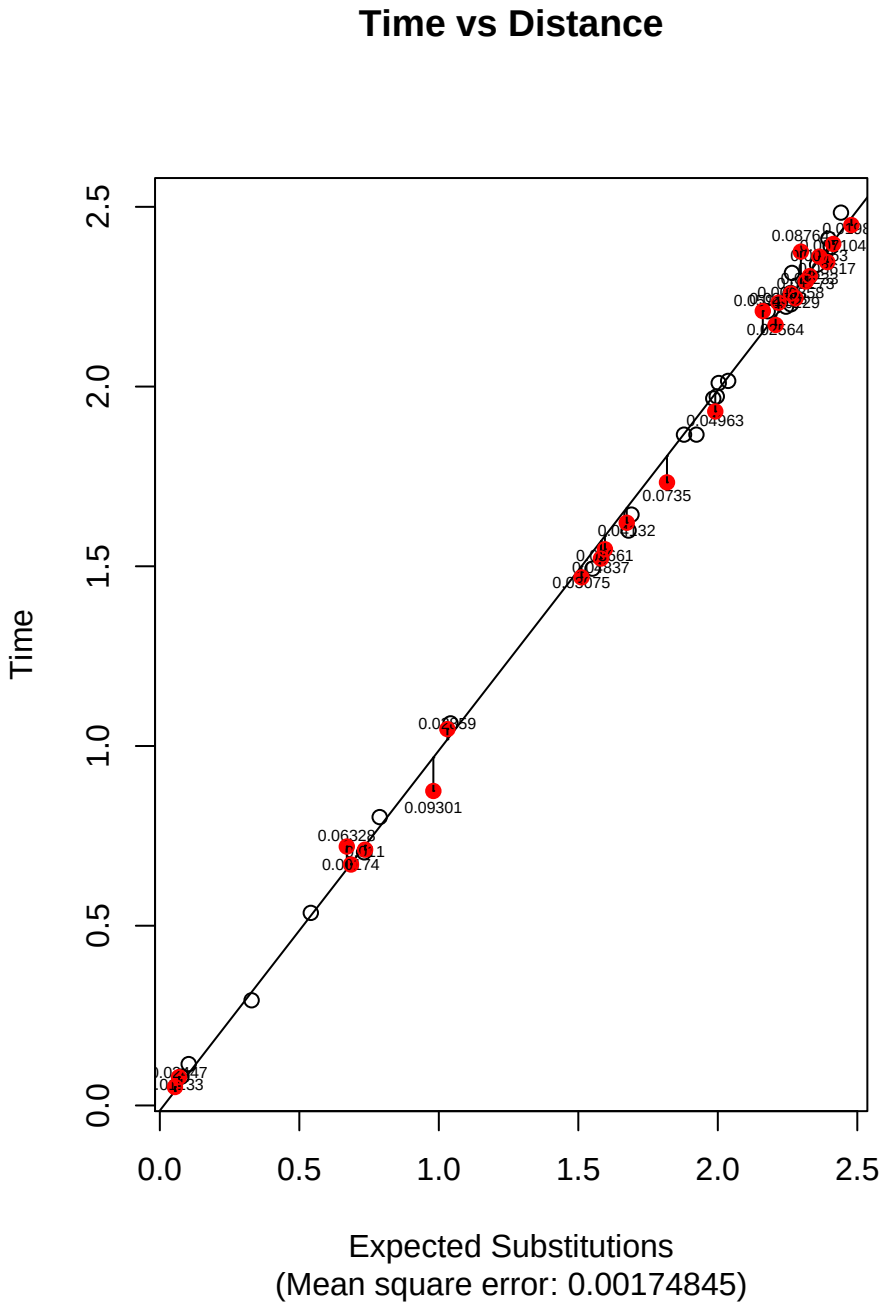

HIV RNA: Simulated−no.23 (Remove 25)
u10 t35 0.0901673520873048
u48 t22 0.296968475092847
u11 t40 0.486390189233992
u33 t29 0.634976051435856
u29 t41 0.72716748645406
u47 t4 1.40400453065152
u14 t6 1.47894308483576
u1 t1 1.77127701762171
u3 t5 1.71383255062322
u45 t3 1.80706991068759
u26 t42 1.81204830947488
u23 t37 1.26246124129616
u42 t21 1.23425590763817
u27 t13 1.24616902734596
u15 t31 1.19711088204776
u43 t44 1.83101752545377
u36 t9 1.68506545898845
u35 t34 1.56577353835897
u44 t36 0.772543190662185
u13 t24 1.40133030004177
u32 t28 1.58033415016931
u2 t18 1.57341289703095
u39 t15 1.54322256510278
u6 t27 1.30581429817734
u17 t33 1.26354905882577

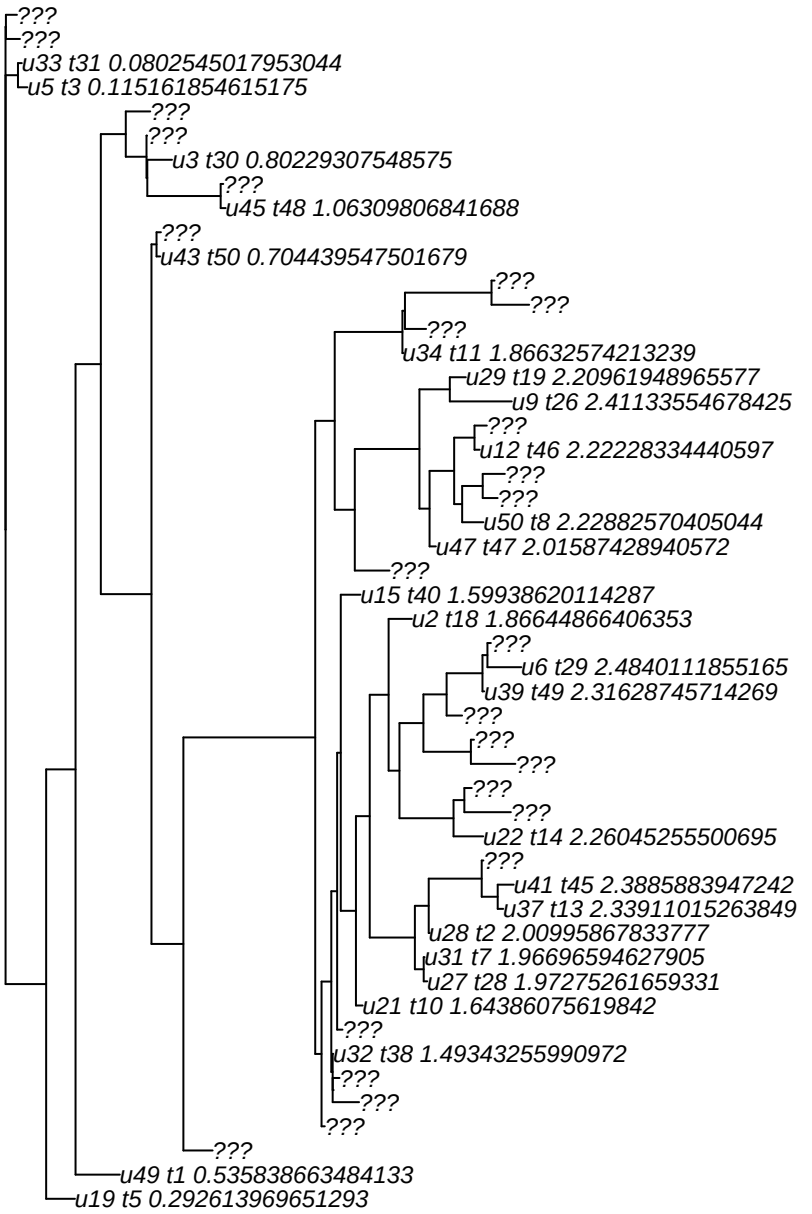

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
0.05114
0.04281
0.05631
0.03285
0.02219
0.0808
0.02253
0.04603
0.03539
Expected Substitutions
(Mean square error: 0.00141345)

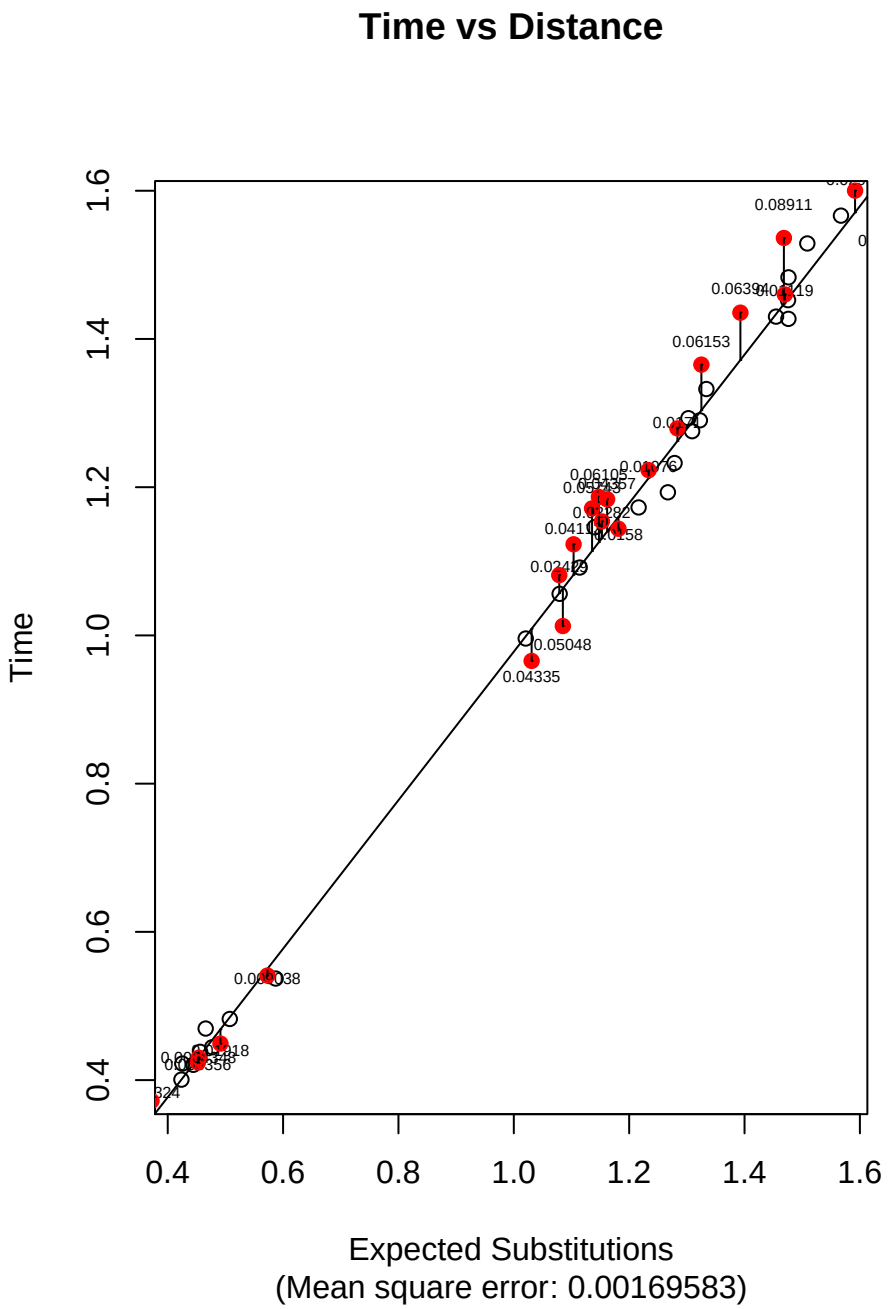

HIV RNA: Simulated−no.24 (Remove 25)
???
u44 t22 0.296968475092847
u17 t36 0.772543190662185
u15 t47 0.771510747903146
u22 t33 1.26354905882577
???
u20 t8 1.58335685780402
u16 t24 1.40133030004177
???
???
u48 t28 1.58033415016931
u27 t19 1.21186178029677
u11 t20 1.18855681757064
u19 t23 0.472927964474775
???
???
???
???
u14 t14 1.35144783093264
u41 t6 1.47894308483576
u18 t5 1.71383255062322
???
u2 t1 1.77127701762171
???
???
???
???
u49 t39 1.80200058624679
???
???
u33 t10 1.54121122458788
u3 t11 1.69840690279081
u21 t4 1.40400453065152
???
???
???
u8 t50 1.40027916623213
???
???
u50 t31 1.19711088204776
???
???
u39 t32 1.71819102981568
u1 t9 1.68506545898845
???
u32 t43 1.50292602914126
???
u4 t45 1.04967057772086
???
u12 t46 0.229579292898546

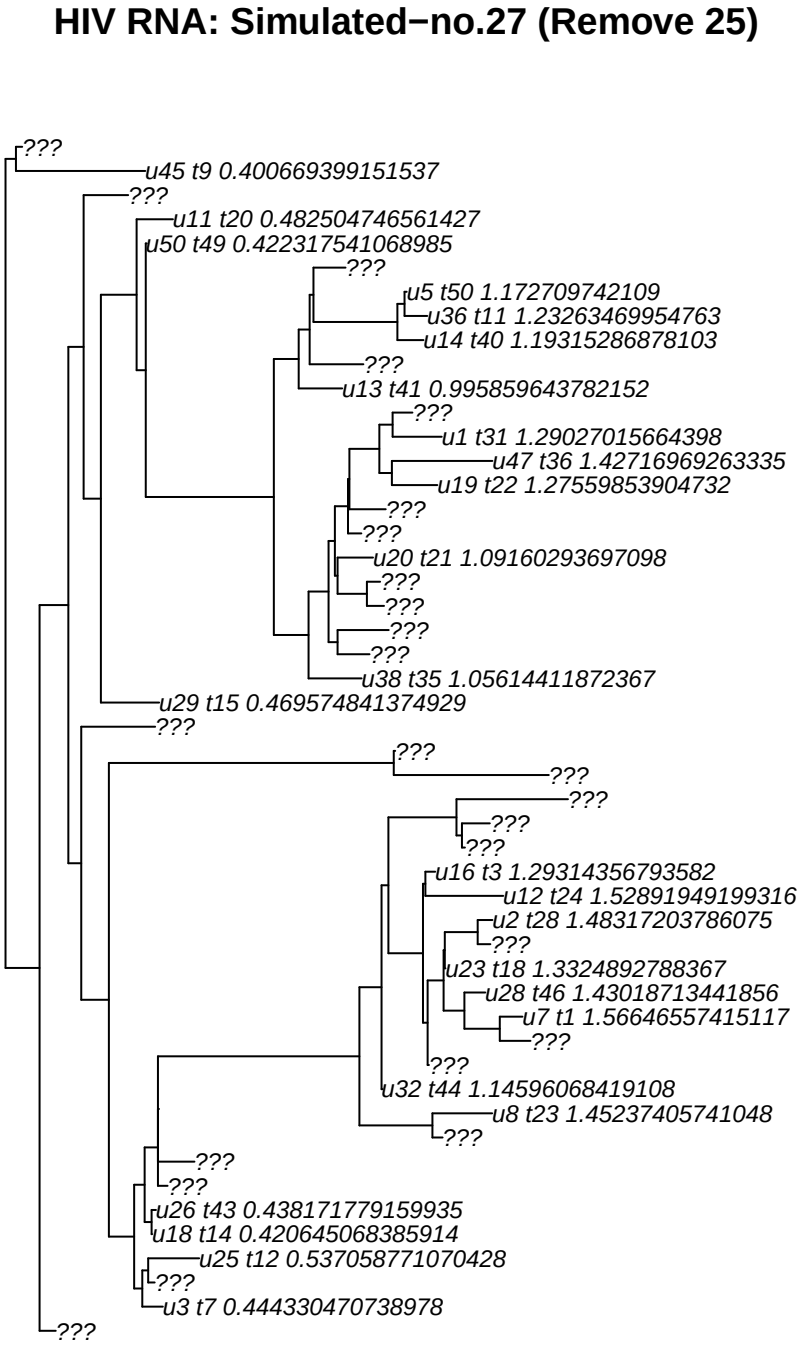

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
Expected Substitutions
(Mean square error: 0.00121158)

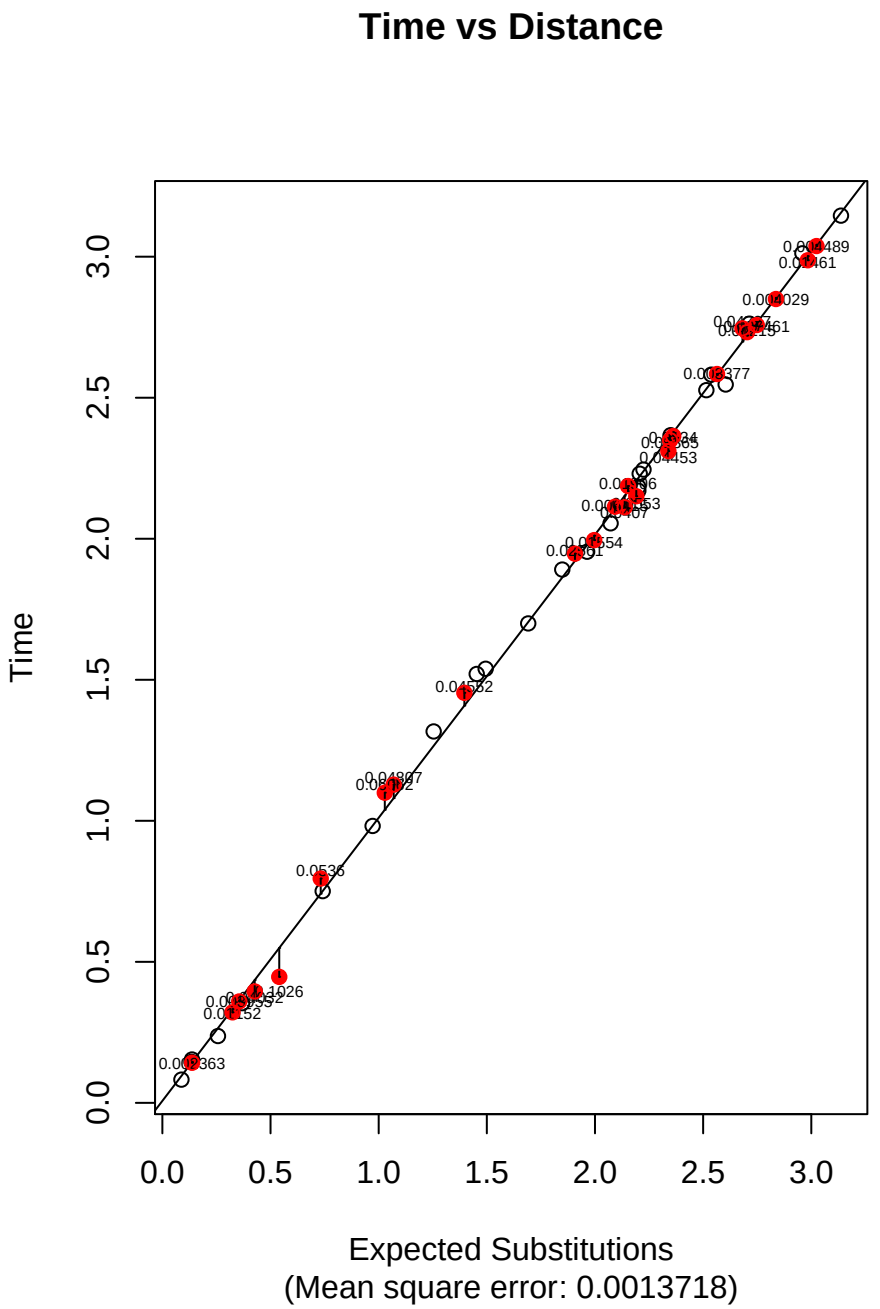

HIV RNA: Simulated−no.25 (Remove 25)
u36 t12 0.0745058366814759
???
u44 t22 0.296968475092847
???
???
u22 t41 0.72716748645406
u21 t7 1.15857600524492
u40 t43 1.50292602914126
???
u11 t9 1.68506545898845
u31 t44 1.83101752545377
???
u30 t31 1.19711088204776
???
u24 t37 1.26246124129616
u39 t50 1.40027916623213
u33 t21 1.23425590763817
???
u17 t17 1.10353440932688
???
u23 t4 1.40400453065152
???
???
u19 t25 1.57047737759705
u34 t26 1.76483183103884
???
???
u28 t39 1.80200058624679
???
???
???
???
???
???
???
???
u37 t45 1.04967057772086
u20 t40 0.486390189233992
u25 t33 1.26354905882577
???
???
u46 t18 1.57341289703095
???
u42 t15 1.54322256510278
u48 t24 1.40133030004177
???
u50 t20 1.18855681757064
u7 t47 0.771510747903146
u10 t36 0.772543190662185
???

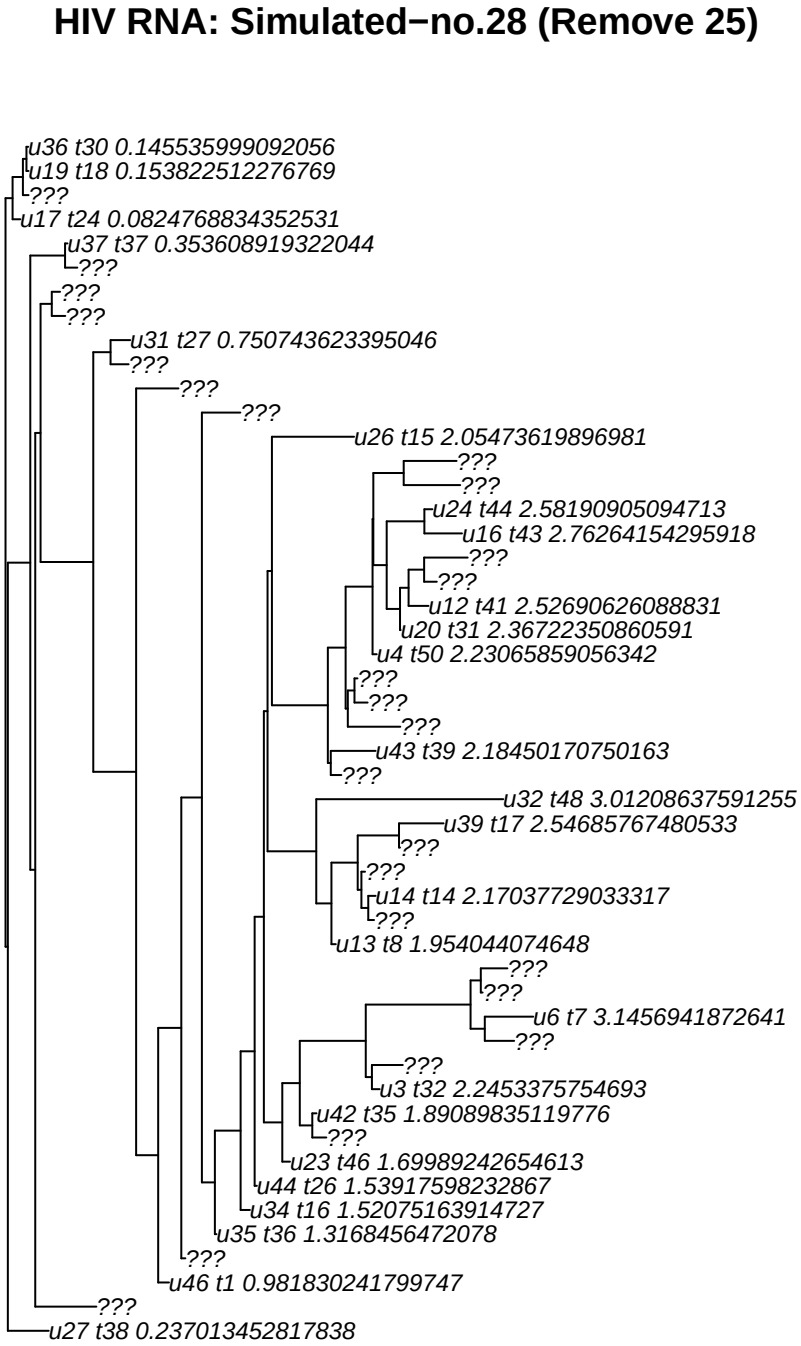

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
0.0
0.5
1.0
1.5
2.0
2.5
0.09301
0.0735
0.04963
0.06328
0.00174
Expected Substitutions
(Mean square error: 0.00174845)

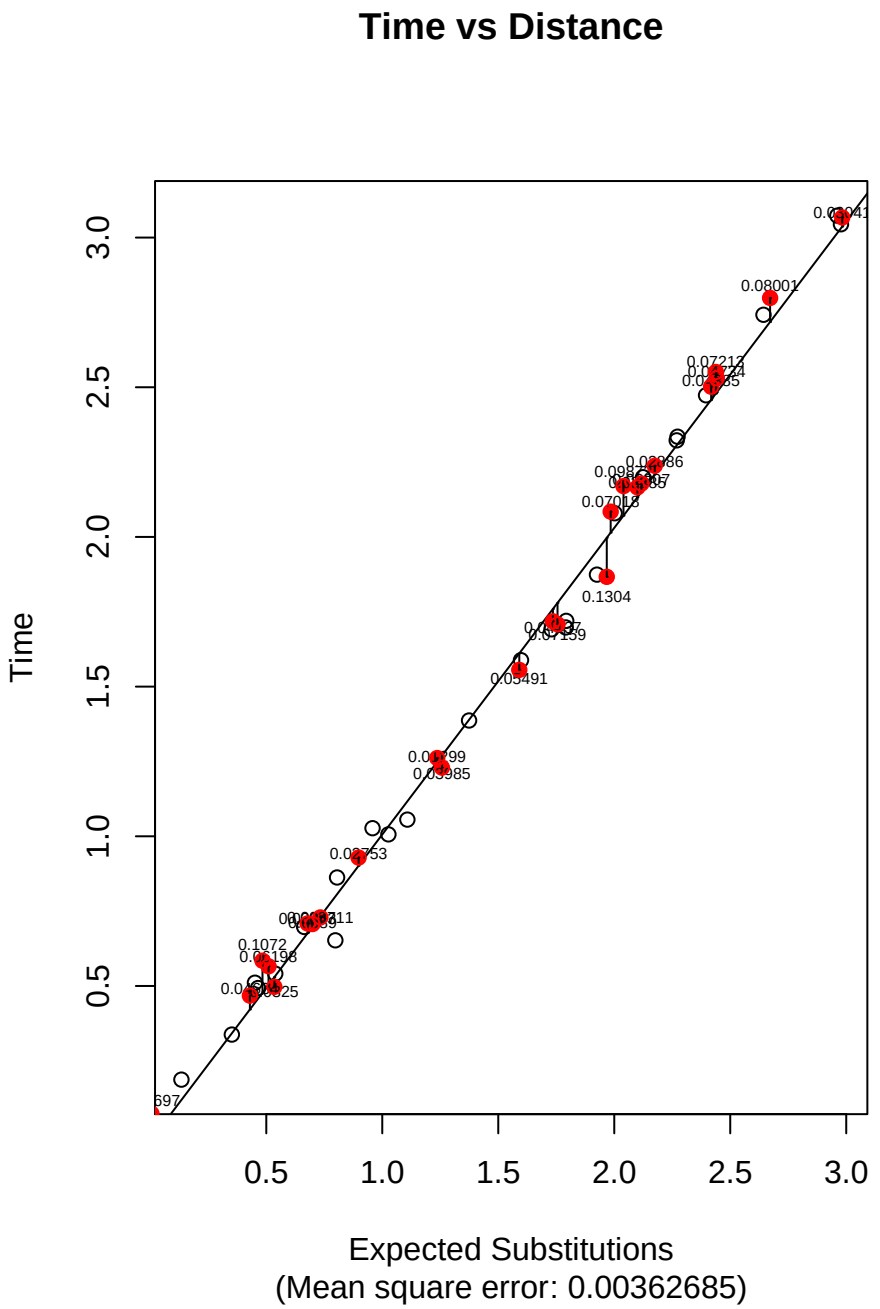

HIV RNA: Simulated−no.26 (Remove 25)
???
???
u33 t31 0.0802545017953044
u5 t3 0.115161854615175
???
???
u3 t30 0.80229307548575
???
u45 t48 1.06309806841688
???
u43 t50 0.704439547501679
???
???
???
u34 t11 1.86632574213239
u29 t19 2.20961948965577
u9 t26 2.41133554678425
???
u12 t46 2.22228334440597
???
???
u50 t8 2.22882570405044
u47 t47 2.01587428940572
???
u15 t40 1.59938620114287
u2 t18 1.86644866406353
???
u6 t29 2.4840111855165
u39 t49 2.31628745714269
???
???
???
???
???
u22 t14 2.26045255500695
???
u41 t45 2.3885883947242
u37 t13 2.33911015263849
u28 t2 2.00995867833777
u31 t7 1.96696594627905
u27 t28 1.97275261659331
u21 t10 1.64386075619842
???
u32 t38 1.49343255990972
???
???
???
???
u49 t1 0.535838663484133
u19 t5 0.292613969651293

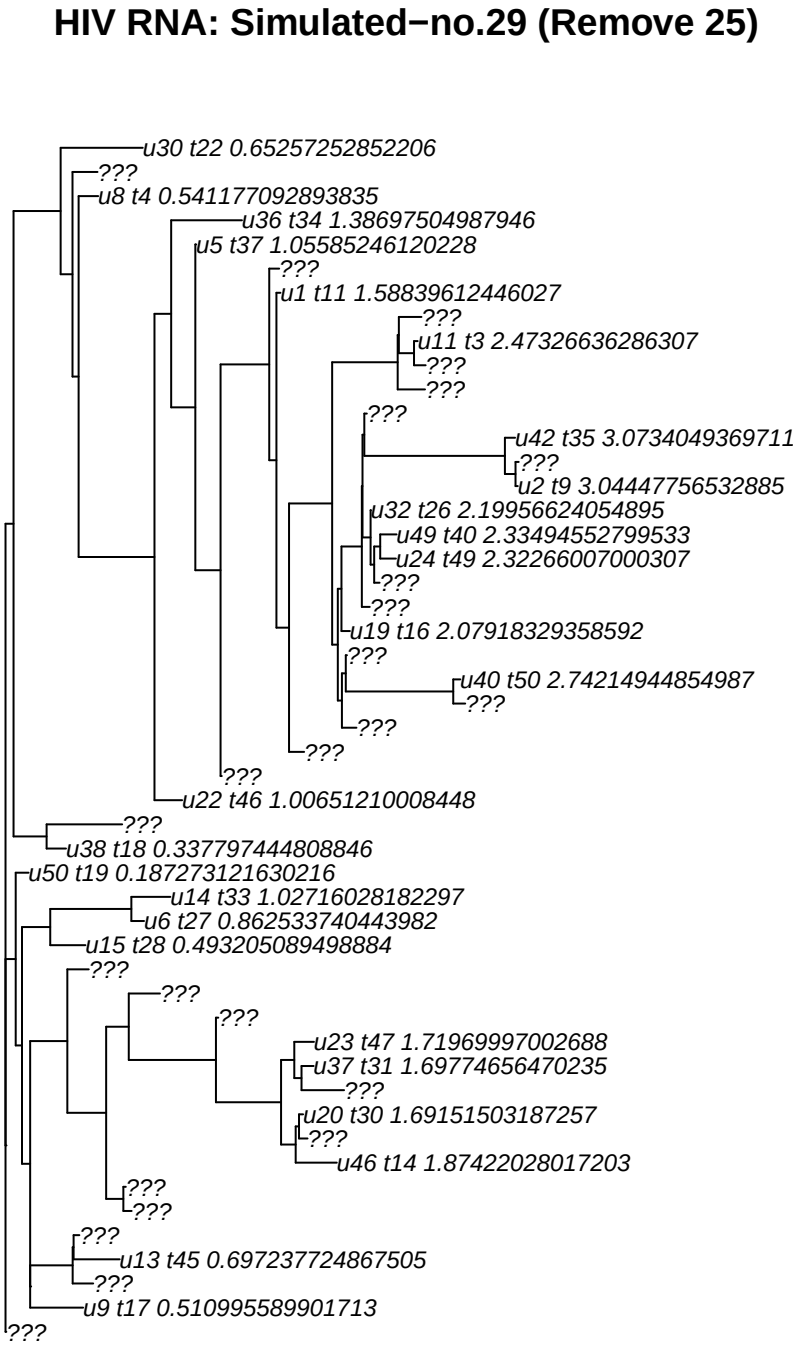

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00169583)
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.08911
0.06153
0.05048
0.04335


HIV RNA: Simulated−no.27 (Remove 25)
???
u45 t9 0.400669399151537
u11 t20 0.482504746561427
u50 t49 0.422317541068985
u5 t50 1.172709742109
u36 t11 1.23263469954763
u14 t40 1.19315286878103
u13 t41 0.995859643782152
u1 t31 1.29027015664398
u47 t36 1.42716969263335
u19 t22 1.27559853904732
u20 t21 1.09160293697098
u38 t35 1.05614411872367
u29 t15 0.469574841374929
u16 t3 1.29314356793582
u12 t24 1.52891949199316
u2 t28 1.48317203786075
u23 t18 1.3324892788367
u28 t46 1.43018713441856
u7 t1 1.56646557415117
u32 t44 1.14596068419108
u8 t23 1.45237405741048
u26 t43 0.438171779159935
u18 t14 0.420645068385914
u25 t12 0.537058771070428
u3 t7 0.444330470738978


Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Expected Substitutions
(Mean square error: 0.0013718)


HIV RNA: Simulated−no.28 (Remove 25)
u36 t30 0.145535999092056
u19 t18 0.153822512276769
???
u17 t24 0.0824768834352531
u37 t37 0.353608919322044
???
???
???
u31 t27 0.750743623395046
???
???
???
u26 t15 2.05473619896981
???
???
u24 t44 2.58190905094713
u16 t43 2.76264154295918
???
???
u12 t41 2.52690626088831
u20 t31 2.36722350860591
u4 t50 2.23065859056342
???
???
???
u43 t39 2.18450170750163
???
u32 t48 3.01208637591255
u39 t17 2.54685767480533
???
???
u14 t14 2.17037729033317
???
u13 t8 1.954044074648
???
???
u6 t7 3.1456941872641
???
???
u3 t32 2.2453375754693
u42 t35 1.89089835119776
???
u23 t46 1.69989242654613
u44 t26 1.53917598232867
u34 t16 1.52075163914727
u35 t36 1.3168456472078
???
u46 t1 0.981830241799747
???
u27 t38 0.237013452817838


Time vs Distance
Time
0.5
1.0
1.5
2.0
2.5
3.0
0.08001
0.1304
0.05491
0.1072
Expected Substitutions
(Mean square error: 0.00362685)


HIV RNA: Simulated−no.29 (Remove 25)
u30 t22 0.65257252852206
???
u8 t4 0.541177092893835
u36 t34 1.38697504987946
u5 t37 1.05585246120228
???
u1 t11 1.58839612446027
???
u11 t3 2.47326636286307
???
???
???
u42 t35 3.0734049369711
???
u2 t9 3.04447756532885
u32 t26 2.19956624054895
u49 t40 2.33494552799533
u24 t49 2.32266007000307
???
???
u19 t16 2.07918329358592
???
u40 t50 2.74214944854987
???
???
???
???
u22 t46 1.00651210008448
???
u38 t18 0.337797444808846
u50 t19 0.187273121630216
u14 t33 1.02716028182297
u6 t27 0.862533740443982
u15 t28 0.493205089498884
???
???
???
u23 t47 1.71969997002688
u37 t31 1.69774656470235
???
u20 t30 1.69151503187257
???
u46 t14 1.87422028017203
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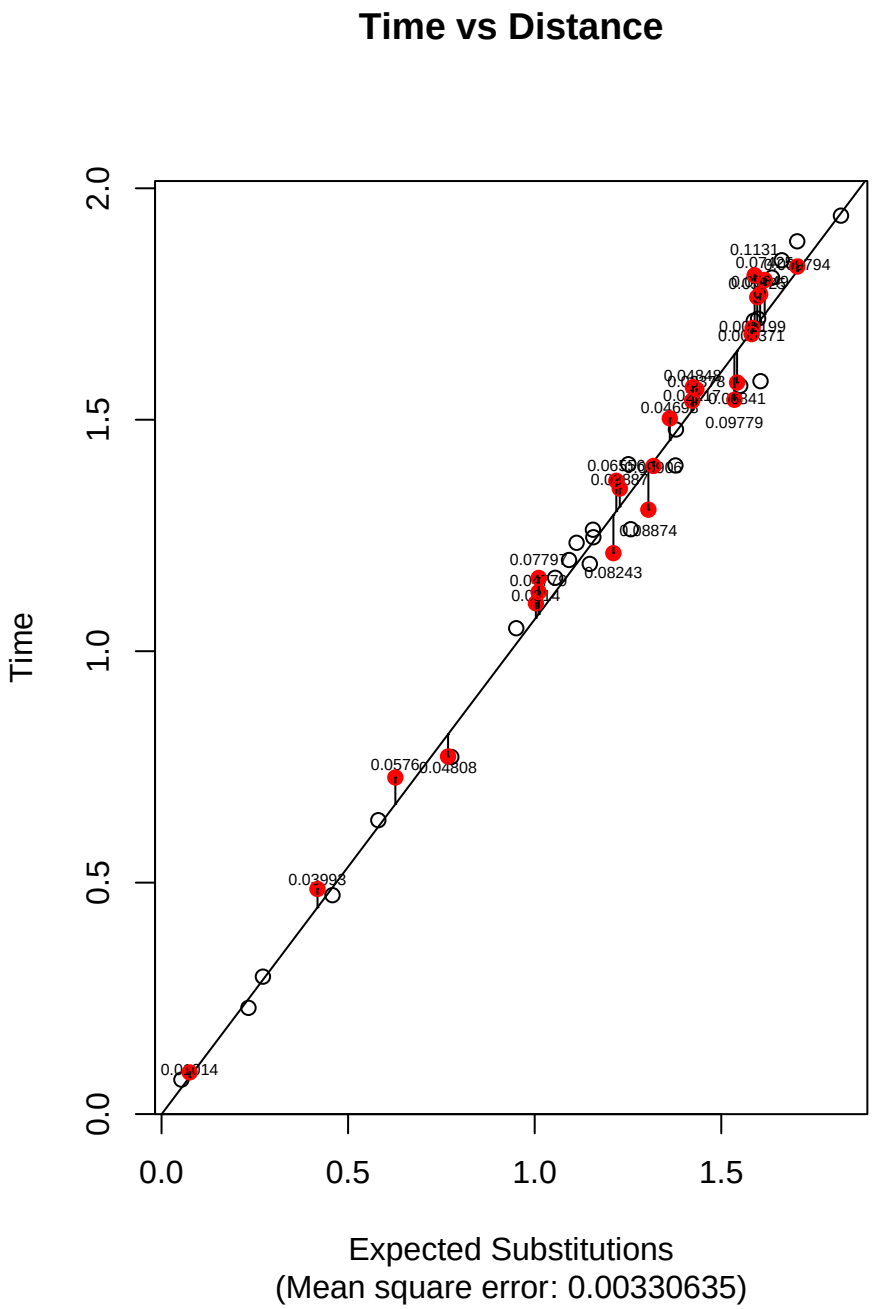
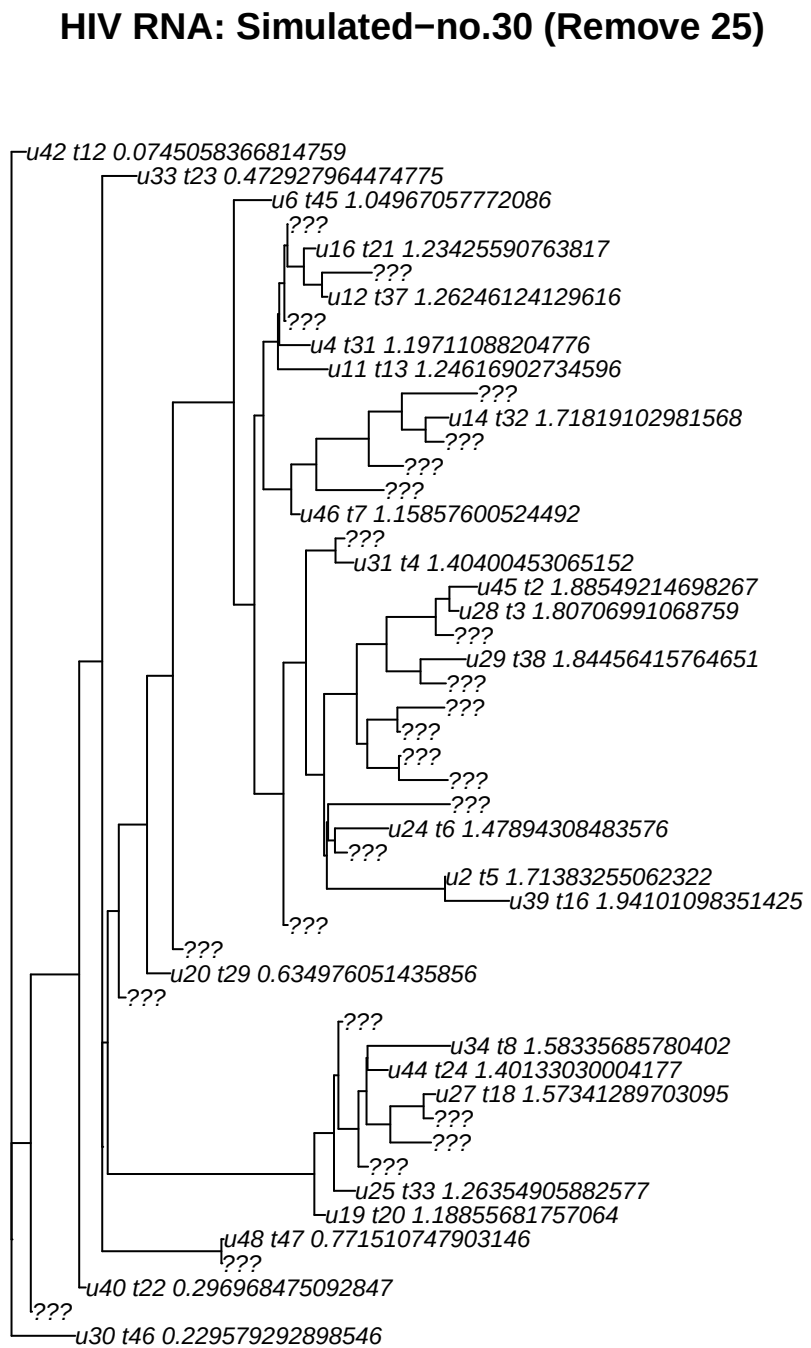
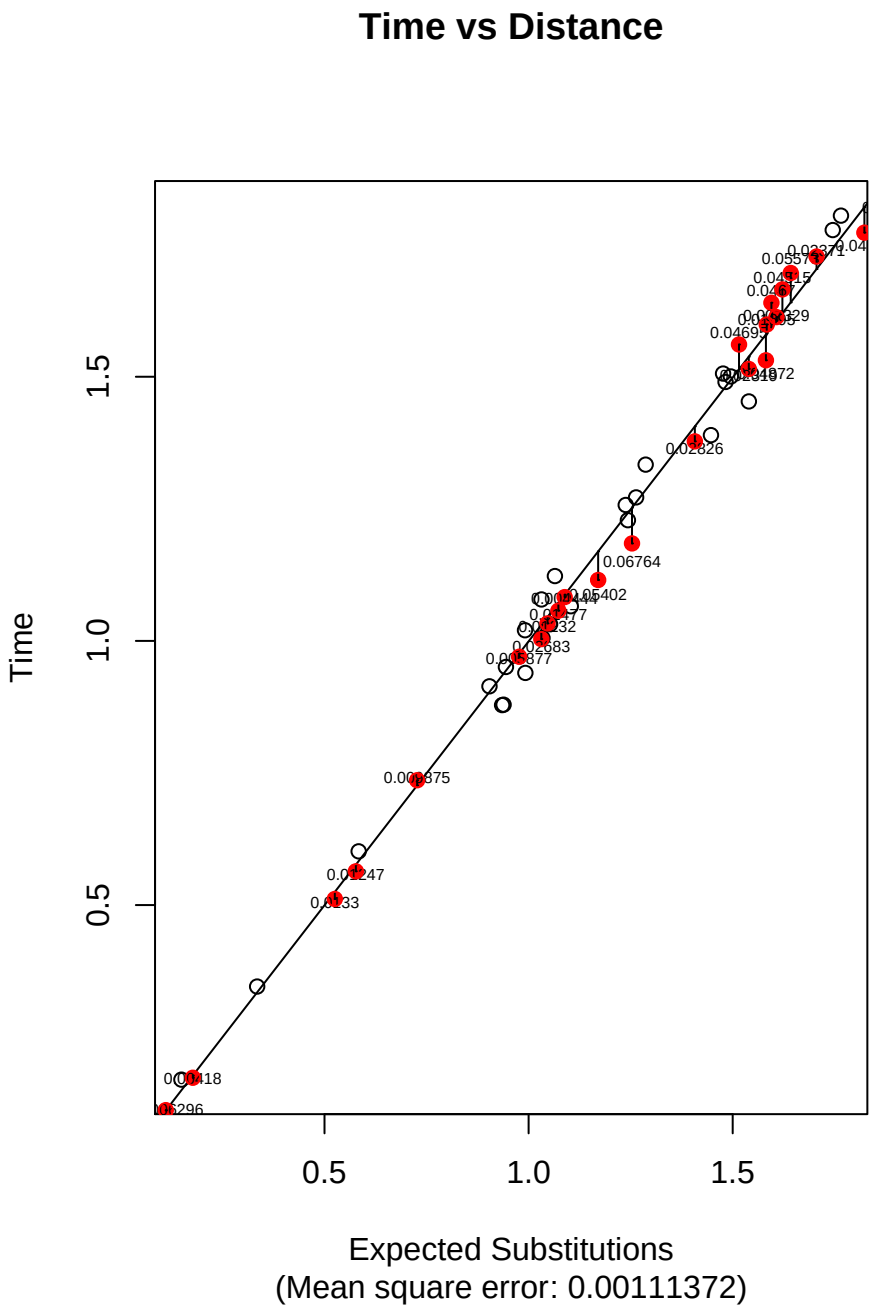
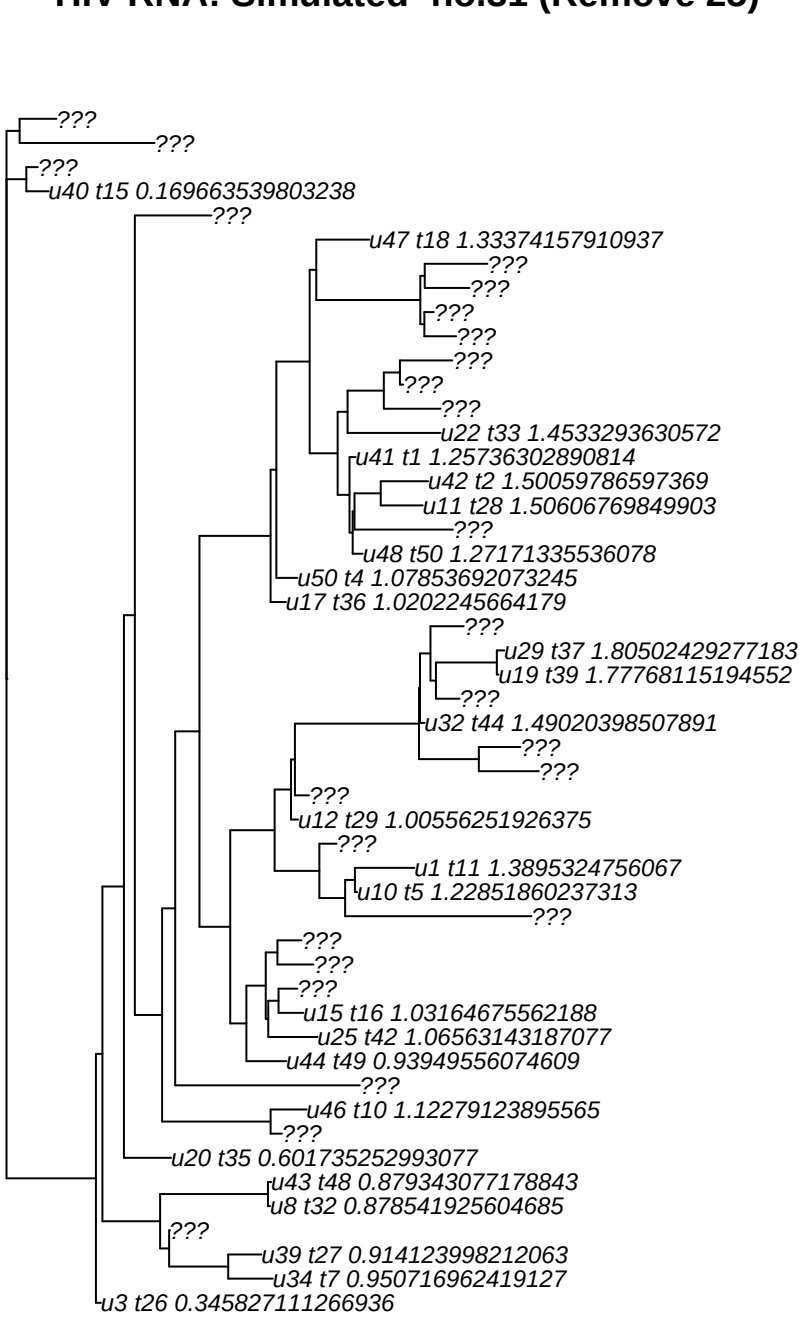
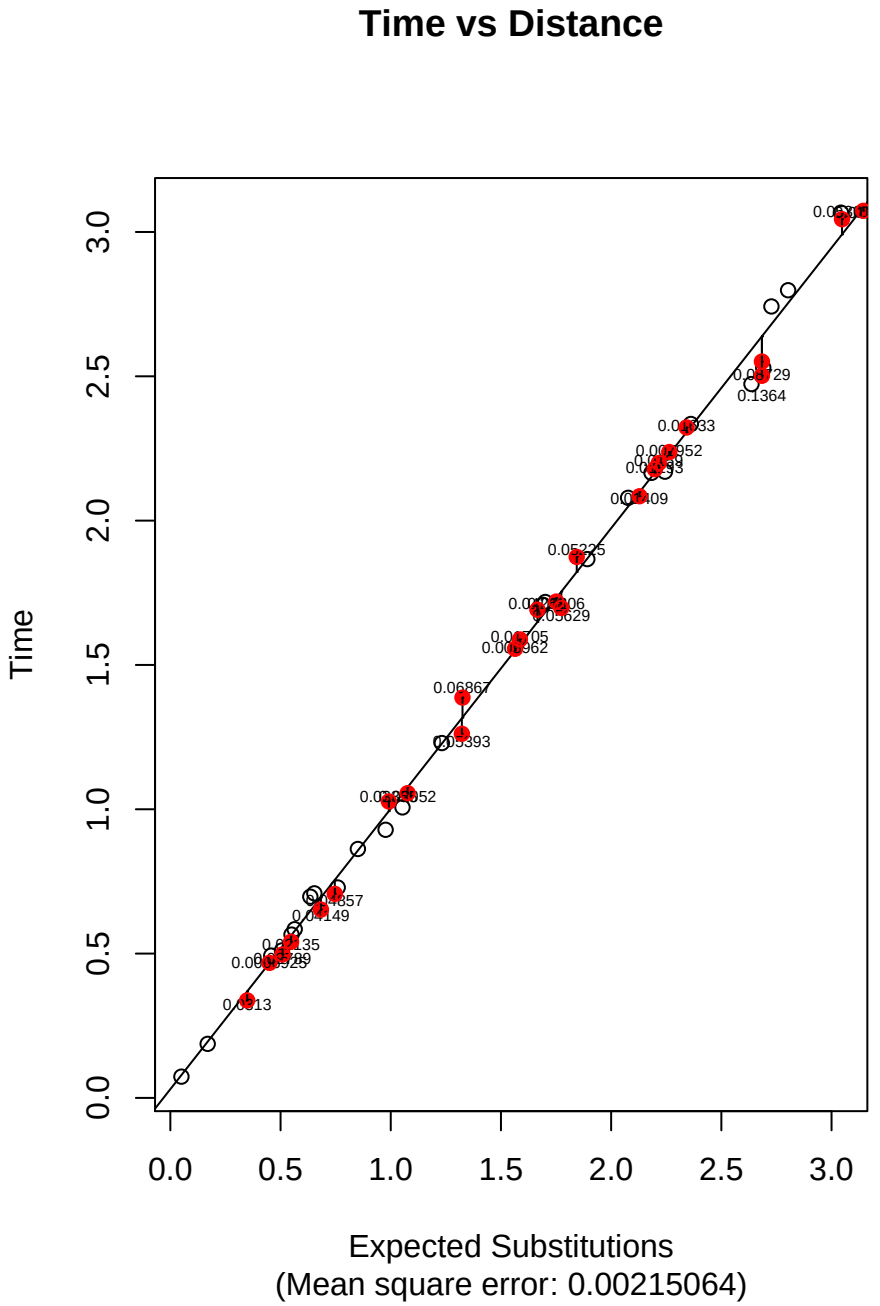
???
???
u13 t45 0.697237724867505
???
u9 t17 0.510995589901713
???

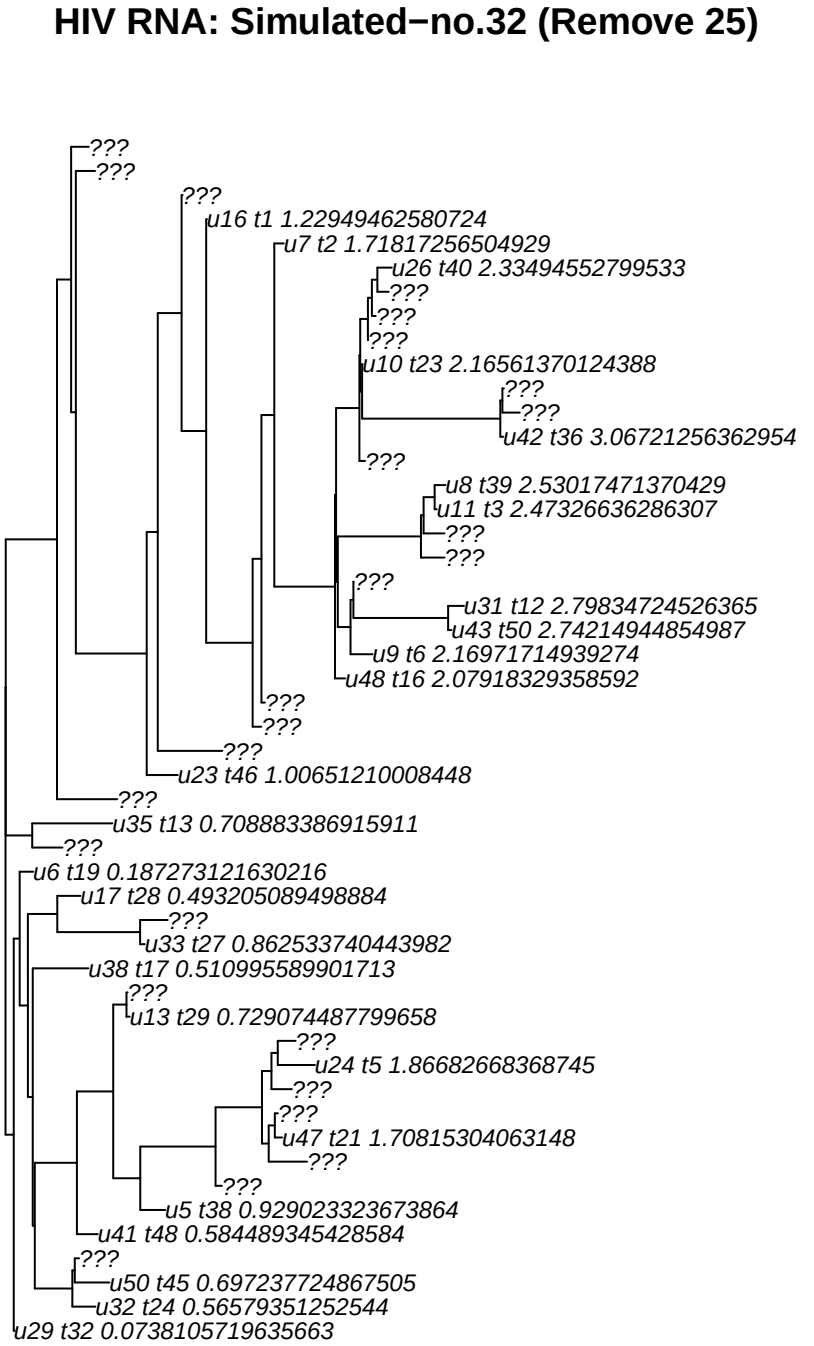

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00330635)
0.0
0.5
1.0
1.5
2.0
0.1131
0.09779
0.08874
0.08243
0.07797
0.0576
0.04808
0.03993
0.01014

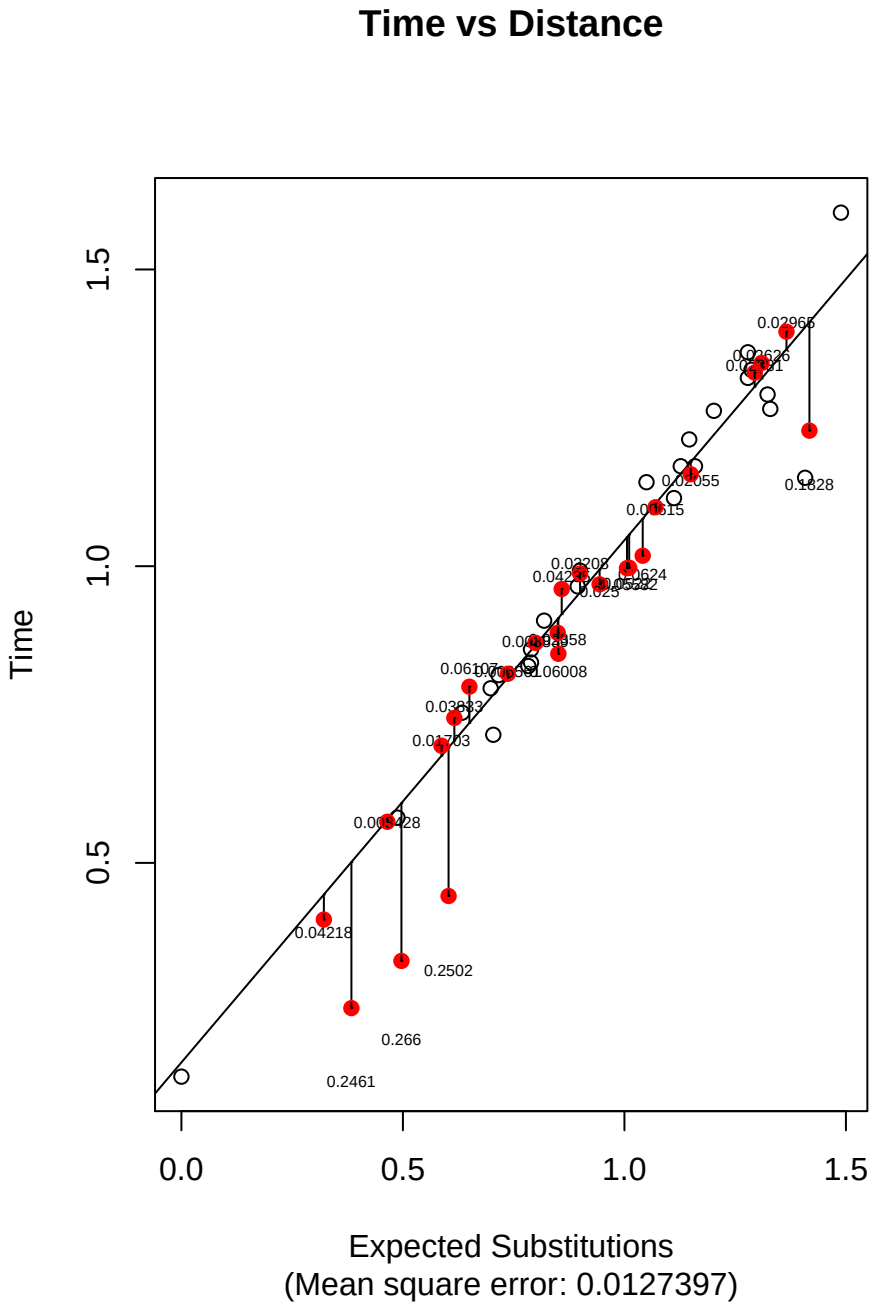

HIV RNA: Simulated−no.30 (Remove 25)
u42 t12 0.0745058366814759
u33 t23 0.472927964474775
u6 t45 1.04967057772086
u16 t21 1.23425590763817
u12 t37 1.26246124129616
u4 t31 1.19711088204776
u11 t13 1.24616902734596
u14 t32 1.71819102981568
u46 t7 1.15857600524492
u31 t4 1.40400453065152
u45 t2 1.88549214698267
u28 t3 1.80706991068759
u29 t38 1.84456415764651
u24 t6 1.47894308483576
u2 t5 1.71383255062322
u39 t16 1.94101098351425
u20 t29 0.634976051435856
u34 t8 1.58335685780402
u44 t24 1.40133030004177
u27 t18 1.57341289703095
u25 t33 1.26354905882577
u19 t20 1.18855681757064
u48 t47 0.771510747903146
u40 t22 0.296968475092847
u30 t46 0.229579292898546

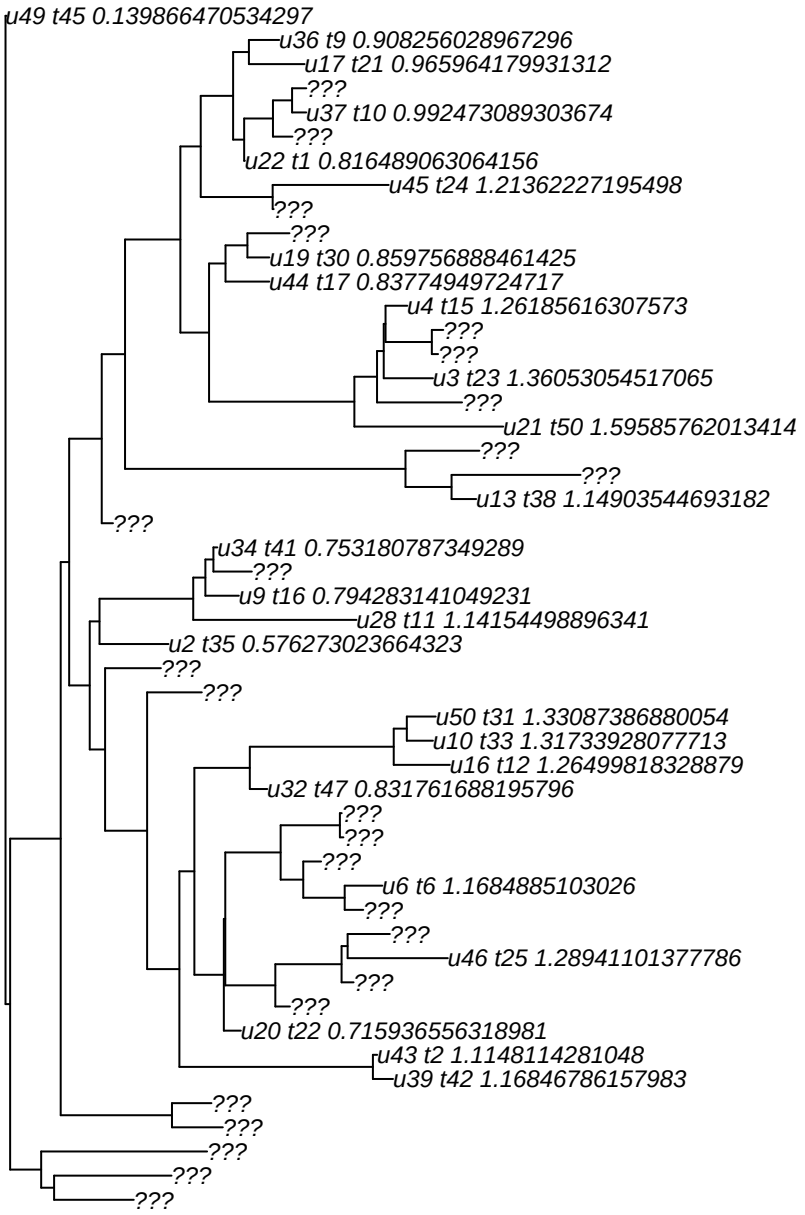

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00111372)

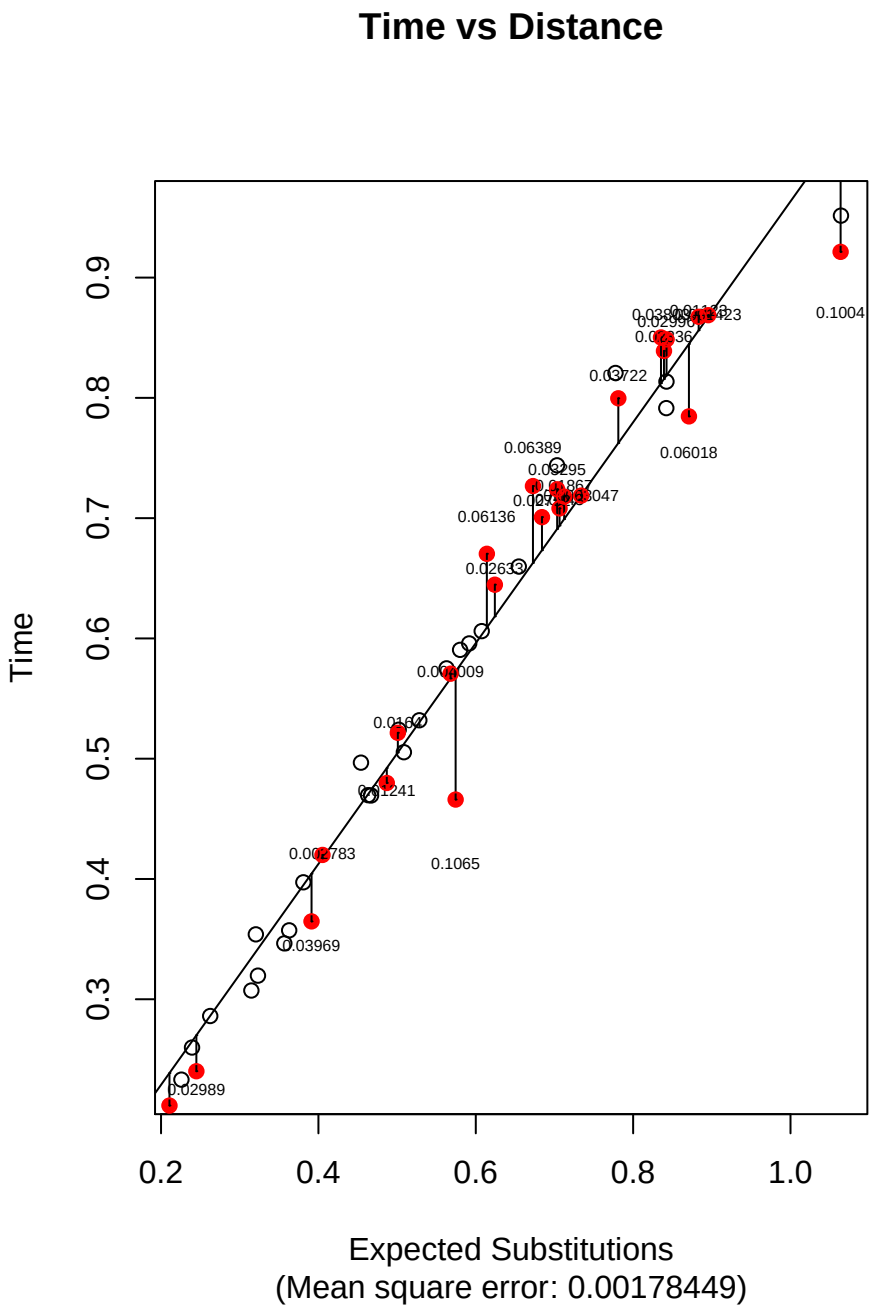

HIV RNA: Simulated−no.31 (Remove 25)
???
???
???
u40 t15 0.169663539803238
???
u47 t18 1.33374157910937
???
???
???
???
???
???
???
u22 t33 1.4533293630572
u41 t1 1.25736302890814
u42 t2 1.50059786597369
u11 t28 1.50606769849903
???
u48 t50 1.27171335536078
u50 t4 1.07853692073245
u17 t36 1.0202245664179
???
u29 t37 1.80502429277183
u19 t39 1.77768115194552
???
u32 t44 1.49020398507891
???
???
???
u12 t29 1.00556251926375
???
u1 t11 1.3895324756067
u10 t5 1.22851860237313
???
???
???
???
u15 t16 1.03164675562188
u25 t42 1.06563143187077
u44 t49 0.93949556074609
???
u46 t10 1.12279123895565
???
u20 t35 0.601735252993077
u43 t48 0.879343077178843
u8 t32 0.878541925604685
???
u39 t27 0.914123998212063
u34 t7 0.950716962419127
u3 t26 0.345827111266936

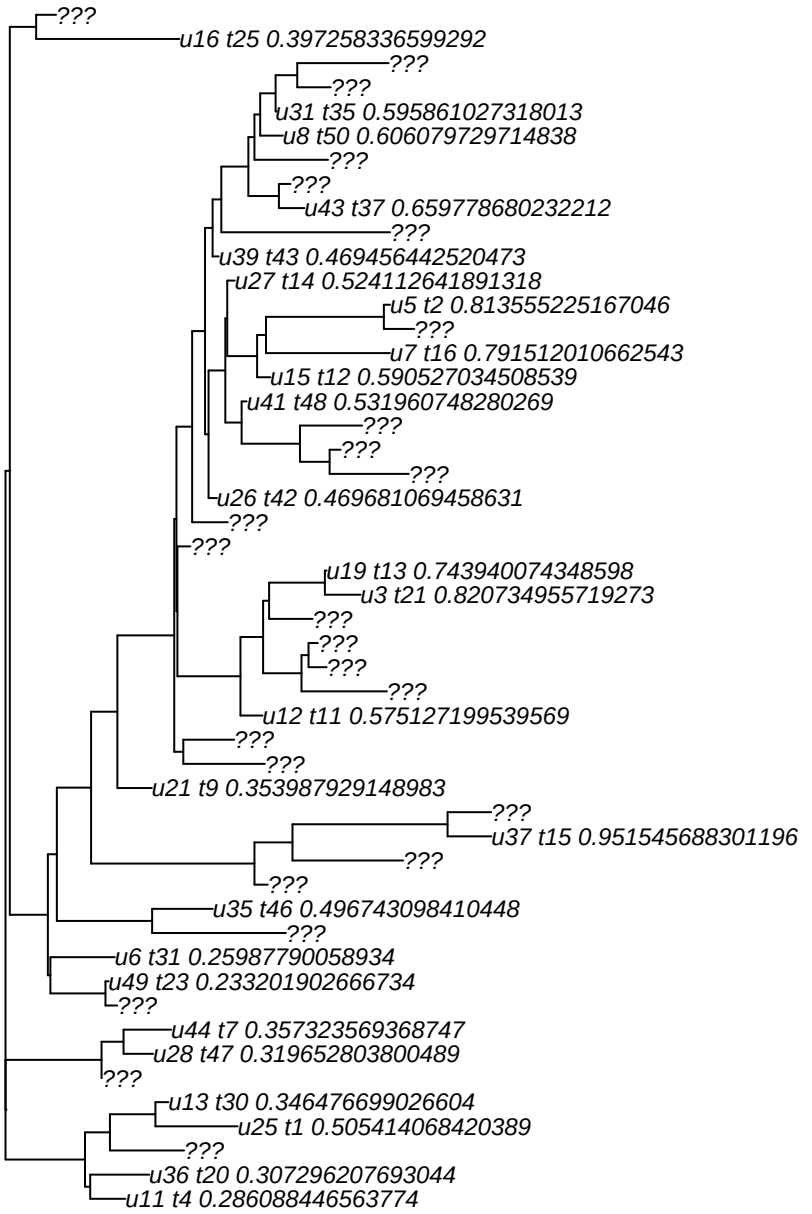

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Expected Substitutions
(Mean square error: 0.00215064)

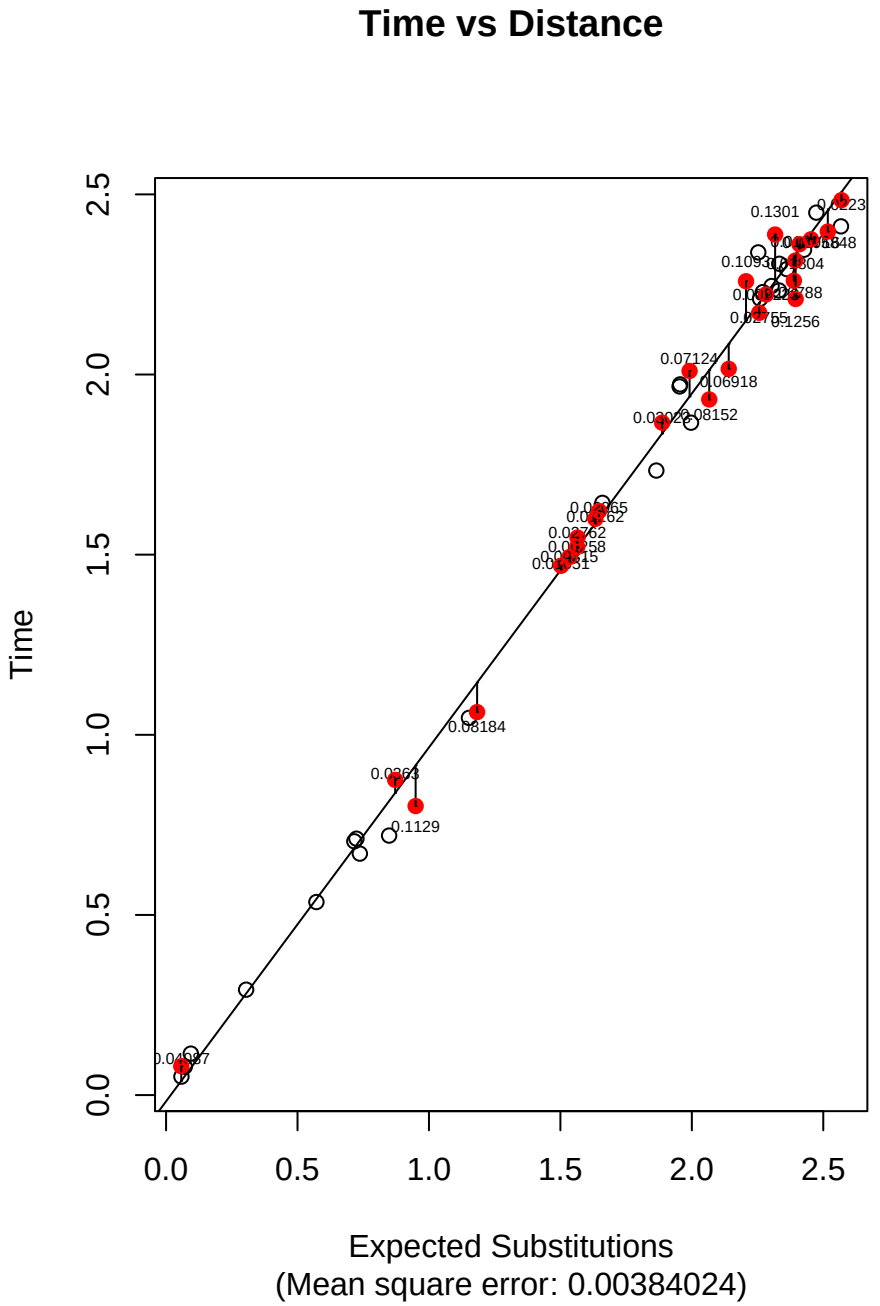

HIV RNA: Simulated−no.32 (Remove 25)
???
???
???
u16 t1 1.22949462580724
u7 t2 1.71817256504929
u26 t40 2.33494552799533
???
???
???
u10 t23 2.16561370124388
???
???
u42 t36 3.06721256362954
???
u8 t39 2.53017471370429
u11 t3 2.47326636286307
???
???
???
u31 t12 2.79834724526365
u43 t50 2.74214944854987
u9 t6 2.16971714939274
u48 t16 2.07918329358592
???
???
???
u23 t46 1.00651210008448
???
u35 t13 0.708883386915911
???
u6 t19 0.187273121630216
u17 t28 0.493205089498884
???
u33 t27 0.862533740443982
u38 t17 0.510995589901713
???
u13 t29 0.729074487799658
???
u24 t5 1.86682668368745
???
???
u47 t21 1.70815304063148
???
???
u5 t38 0.929023323673864
u41 t48 0.584489345428584
???
u50 t45 0.697237724867505
u32 t24 0.56579351252544
u29 t32 0.0738105719635663

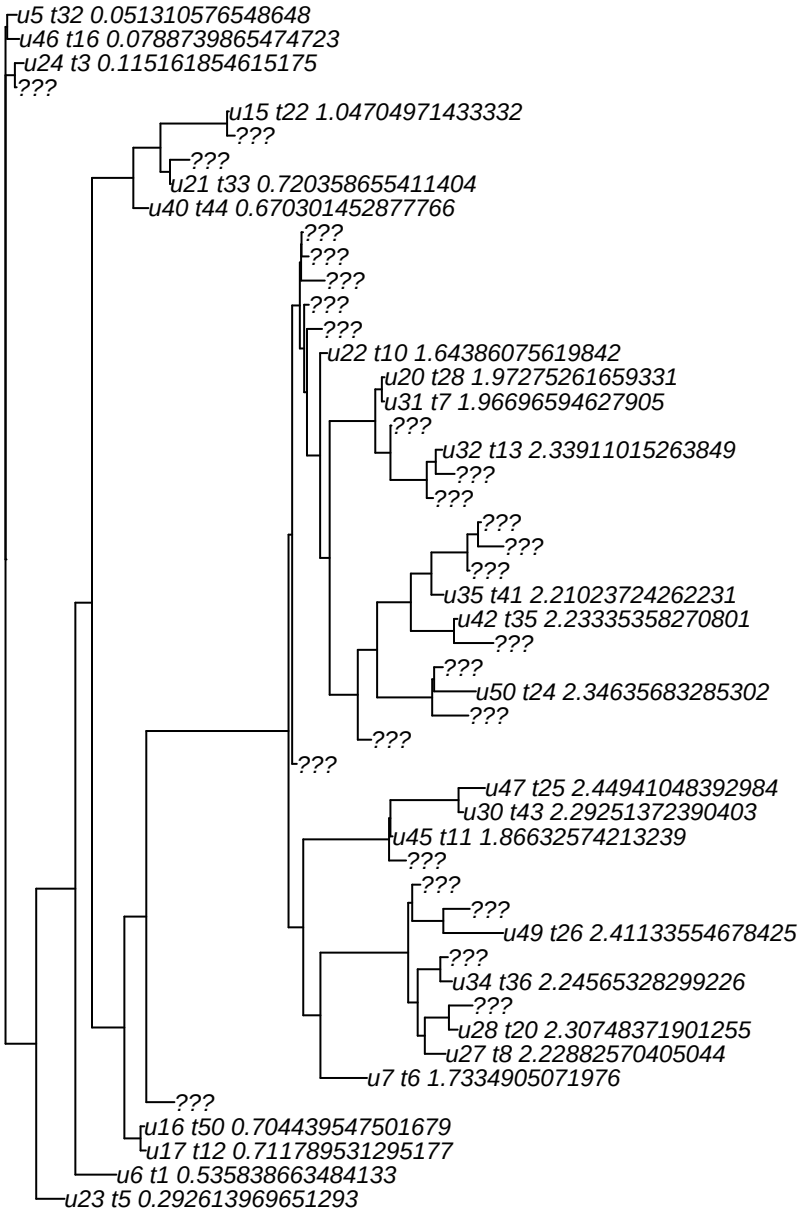

Time vs Distance
Time
0.5
1.0
1.5
0.0
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.0127397)
0.02965
0.1828
0.02055
0.04218
0.2502
0.266
0.2461

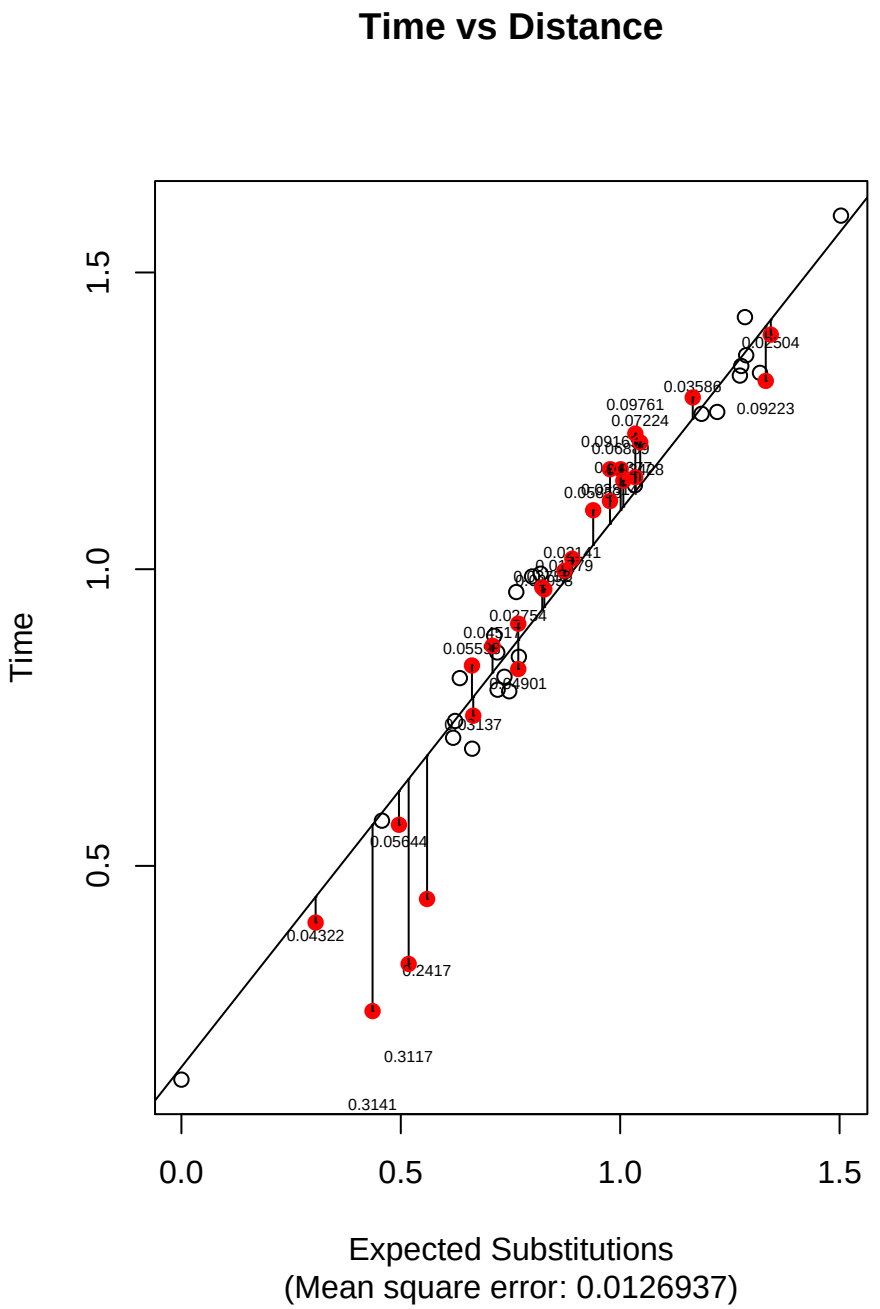

HIV RNA: Simulated−no.33 (Remove 25)
u49 t45 0.139866470534297
u36 t9 0.908256028967296
u17 t21 0.965964179931312
???
u37 t10 0.992473089303674
???
u22 t1 0.816489063064156
u45 t24 1.21362227195498
???
???
u19 t30 0.859756888461425
u44 t17 0.83774949724717
u4 t15 1.26185616307573
???
???
u3 t23 1.36053054517065
???
u21 t50 1.59585762013414
???
???
u13 t38 1.14903544693182
???
u34 t41 0.753180787349289
???
u9 t16 0.794283141049231
u28 t11 1.14154498896341
u2 t35 0.576273023664323
???
???
u50 t31 1.33087386880054
u10 t33 1.31733928077713
u16 t12 1.26499818328879
u32 t47 0.831761688195796
???
???
???
u6 t6 1.1684885103026
???
???
u46 t25 1.28941101377786
???
???
u20 t22 0.715936556318981
u43 t2 1.1148114281048
u39 t42 1.16846786157983
???
???
???
???
???

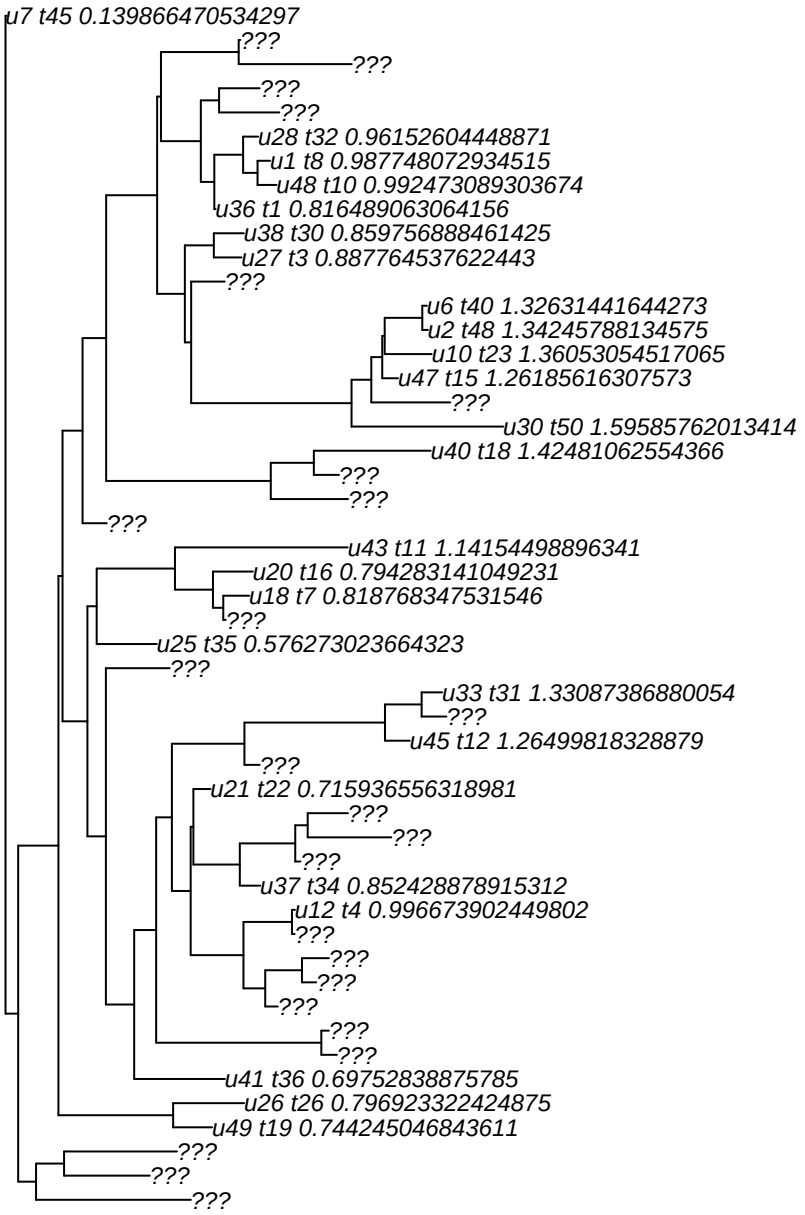

Time vs Distance
Time
0.3
0.4
0.5
0.6
0.7
0.8
0.9
0.2
0.4
0.6
0.8
1.0
Expected Substitutions
(Mean square error: 0.00178449)
0.1004
0.06018
0.06389
0.06136
0.1065
0.03969
0.02989

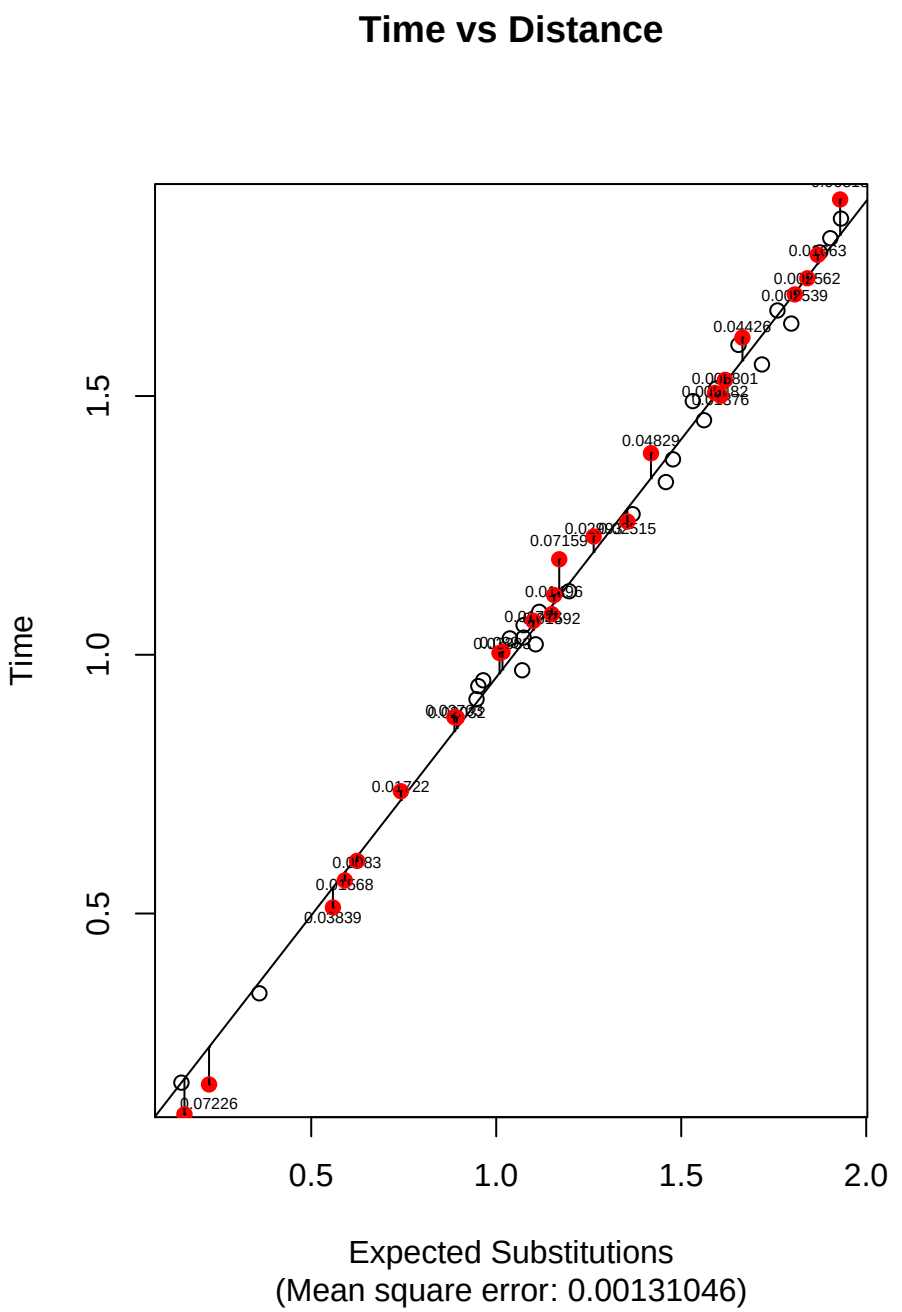

HIV RNA: Simulated−no.34 (Remove 25)
???
u16 t25 0.397258336599292
u31 t35 0.595861027318013
u8 t50 0.606079729714838
u43 t37 0.659778680232212
u39 t43 0.469456442520473
u27 t14 0.524112641891318
u5 t2 0.813555225167046
u7 t16 0.791512010662543
u15 t12 0.590527034508539
u41 t48 0.531960748280269
u26 t42 0.469681069458631
u19 t13 0.743940074348598
u3 t21 0.820734955719273
u12 t11 0.575127199539569
u21 t9 0.353987929148983
u37 t15 0.951545688301196
u35 t46 0.496743098410448
u6 t31 0.25987790058934
u49 t23 0.233201902666734
u44 t7 0.357323569368747
u28 t47 0.319652803800489
u13 t30 0.346476699026604
u25 t1 0.505414068420389
u36 t20 0.307296207693044
u11 t4 0.286088446563774

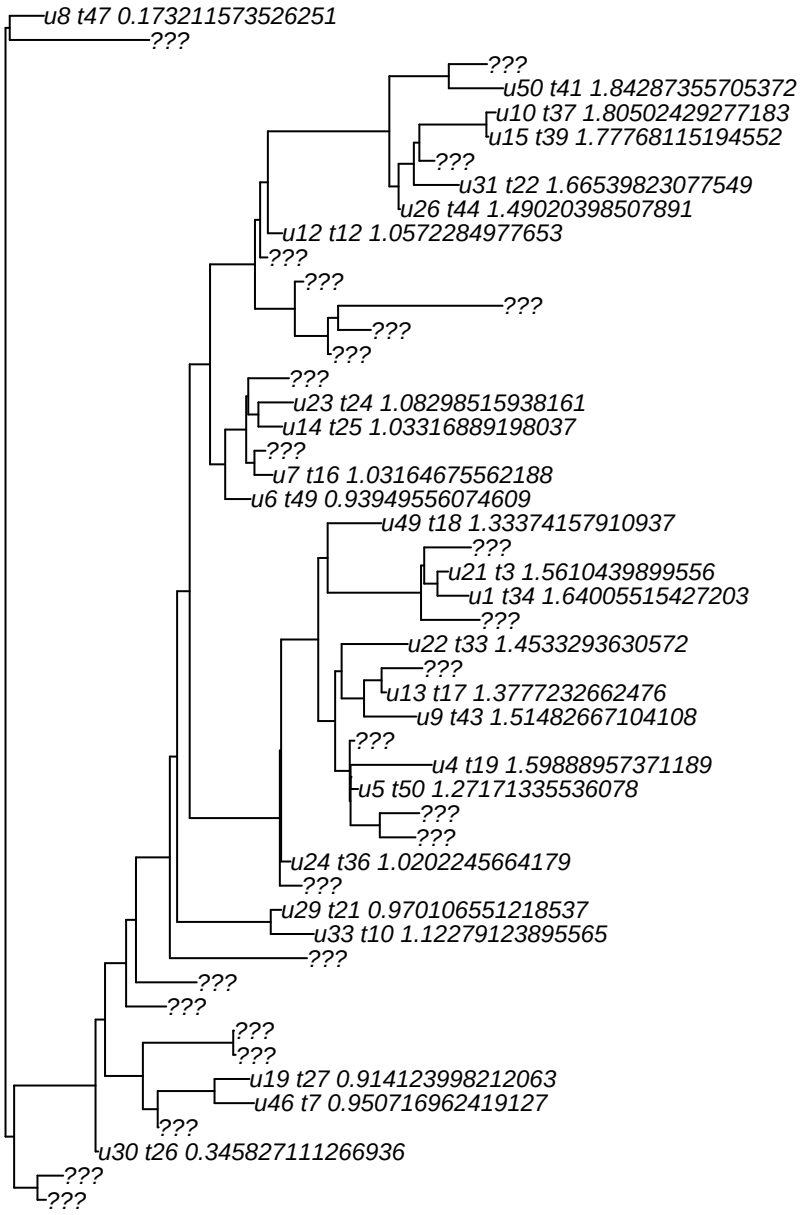

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00384024)
0.0
0.5
1.0
1.5
2.0
2.5
0.1301
0.07124
0.06918
0.08152
0.08184
0.0263
0.1129

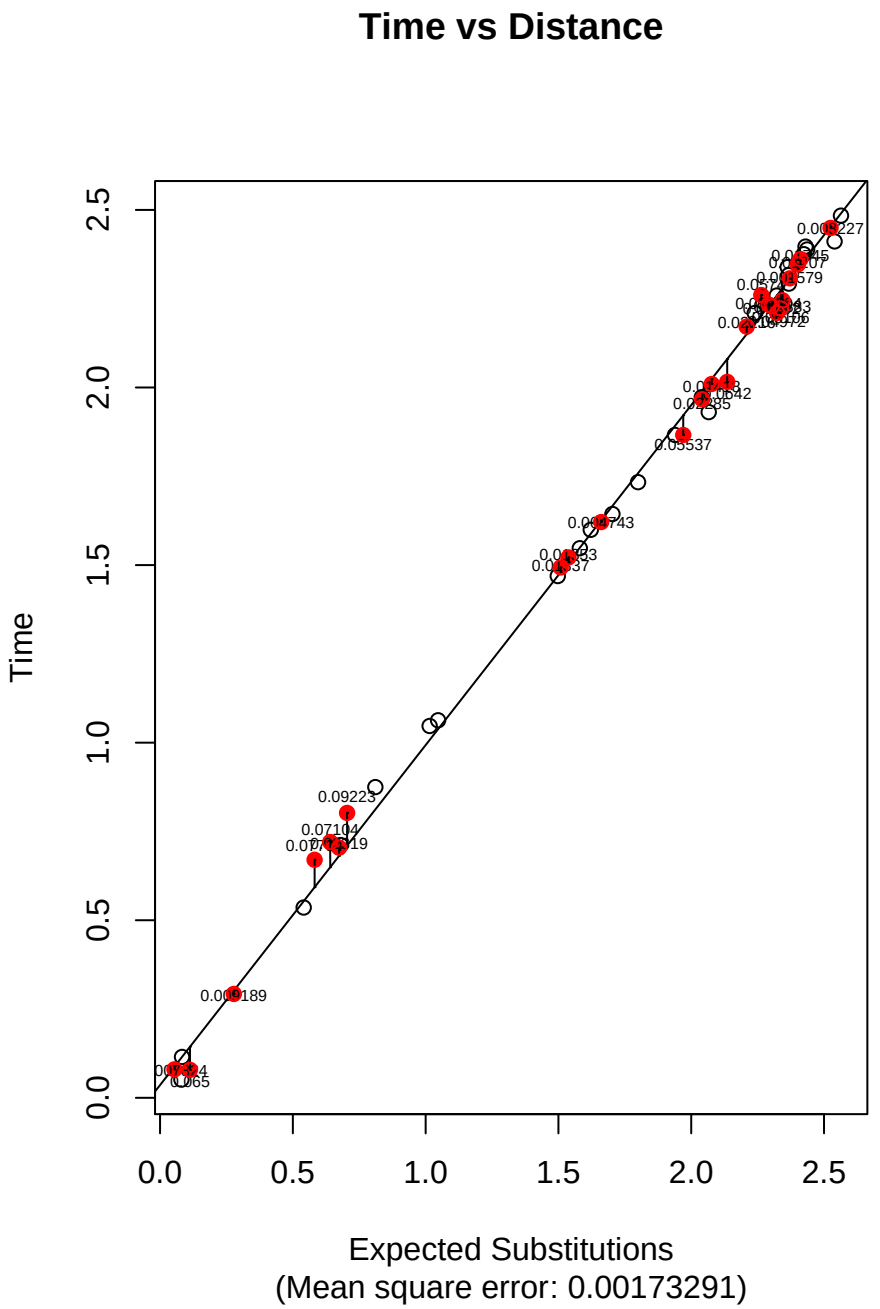

HIV RNA: Simulated−no.35 (Remove 25)
u5 t32 0.051310576548648
u46 t16 0.0788739865474723
u24 t3 0.115161854615175
???
u15 t22 1.04704971433332
???
???
u21 t33 0.720358655411404
u40 t44 0.670301452877766
???
???
???
???
???
u22 t10 1.64386075619842
u20 t28 1.97275261659331
u31 t7 1.96696594627905
???
u32 t13 2.33911015263849
???
???
???
???
???
u35 t41 2.21023724262231
u42 t35 2.23335358270801
???
???
u50 t24 2.34635683285302
???
???
???
u47 t25 2.44941048392984
u30 t43 2.29251372390403
u45 t11 1.86632574213239
???
???
???
u49 t26 2.41133554678425
???
u34 t36 2.24565328299226
???
u28 t20 2.30748371901255
u27 t8 2.22882570405044
u7 t6 1.7334905071976
???
u16 t50 0.704439547501679
u17 t12 0.711789531295177
u6 t1 0.535838663484133
u23 t5 0.292613969651293

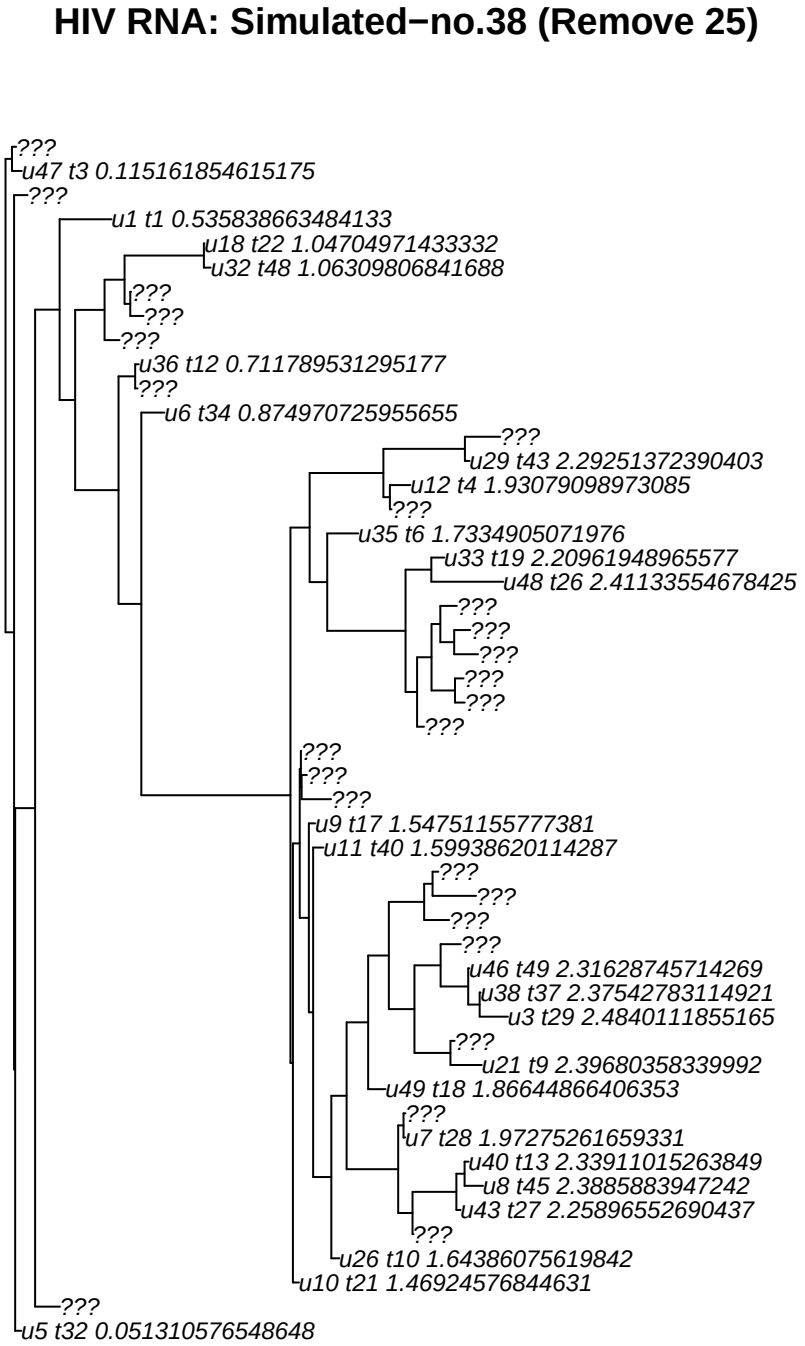

Time vs Distance
Time
0.5
1.0
1.5
0.0
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.0126937)
0.09223
0.03586
0.09761
0.07224
0.05644
0.04322
0.2417
0.3117
0.3141

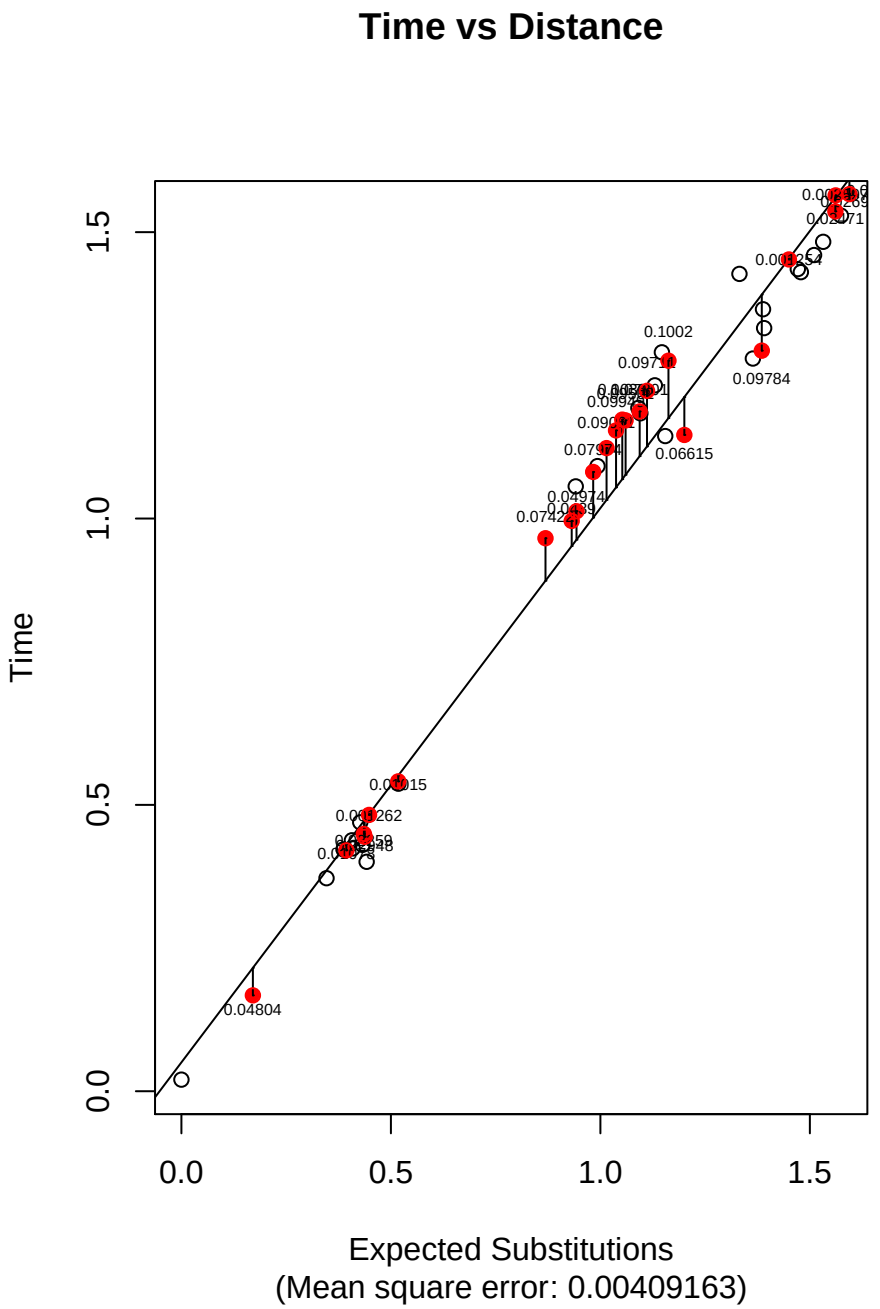

HIV RNA: Simulated−no.36 (Remove 25)
u7 t45 0.139866470534297
???
???
???
???
u28 t32 0.96152604448871
u1 t8 0.987748072934515
u48 t10 0.992473089303674
u36 t1 0.816489063064156
u38 t30 0.859756888461425
u27 t3 0.887764537622443
???
u6 t40 1.32631441644273
u2 t48 1.34245788134575
u10 t23 1.36053054517065
u47 t15 1.26185616307573
???
u30 t50 1.59585762013414
u40 t18 1.42481062554366
???
???
???
u43 t11 1.14154498896341
u20 t16 0.794283141049231
u18 t7 0.818768347531546
???
u25 t35 0.576273023664323
???
u33 t31 1.33087386880054
???
u45 t12 1.26499818328879
???
u21 t22 0.715936556318981
???
???
???
u37 t34 0.852428878915312
u12 t4 0.996673902449802
???
???
???
???
???
???
u41 t36 0.697528838875785
u26 t26 0.796923322424875
u49 t19 0.744245046843611
???
???
???

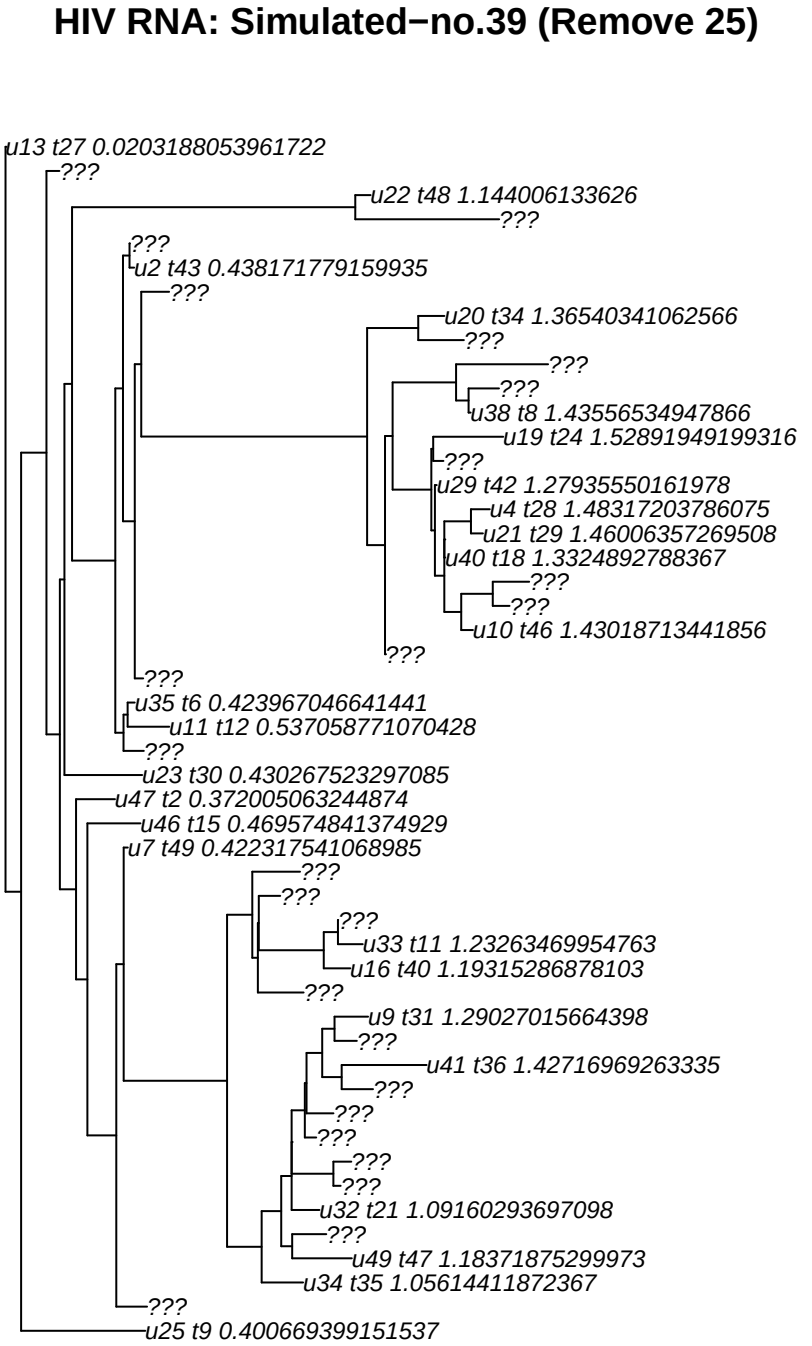

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
2.0
0.07226
0.03839
0.04426
0.04829
0.07159
Expected Substitutions
(Mean square error: 0.00131046)

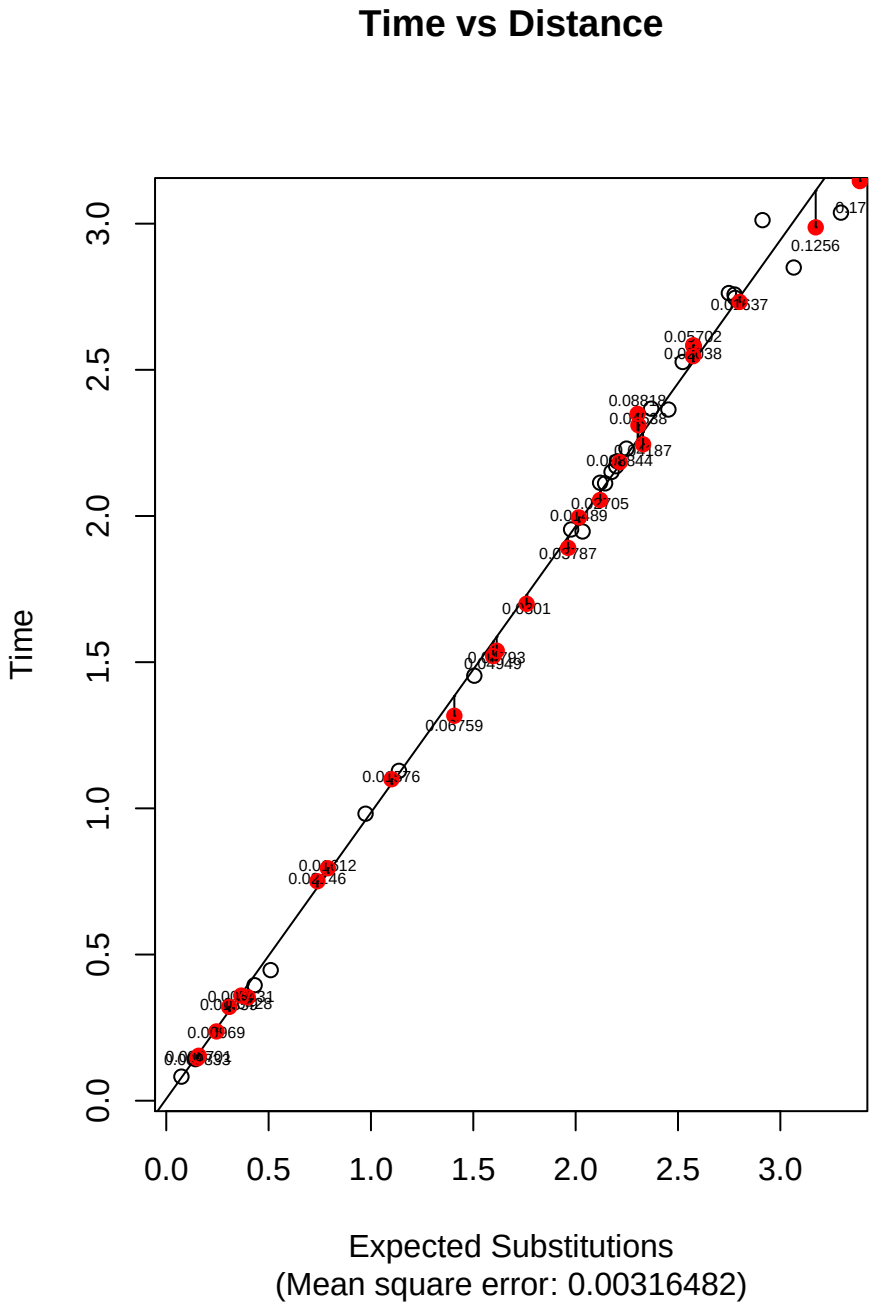

HIV RNA: Simulated−no.37 (Remove 25)
u8 t47 0.173211573526251
???
???
u50 t41 1.84287355705372
u10 t37 1.80502429277183
u15 t39 1.77768115194552
???
u31 t22 1.66539823077549
u26 t44 1.49020398507891
u12 t12 1.0572284977653
???
???
???
???
???
???
u23 t24 1.08298515938161
u14 t25 1.03316889198037
???
u7 t16 1.03164675562188
u6 t49 0.93949556074609
u49 t18 1.33374157910937
???
u21 t3 1.5610439899556
u1 t34 1.64005515427203
???
u22 t33 1.4533293630572
???
u13 t17 1.3777232662476
u9 t43 1.51482667104108
???
u4 t19 1.59888957371189
u5 t50 1.27171335536078
???
???
u24 t36 1.0202245664179
???
u29 t21 0.970106551218537
u33 t10 1.12279123895565
???
???
???
???
???
u19 t27 0.914123998212063
u46 t7 0.950716962419127
???
u30 t26 0.345827111266936
???
???

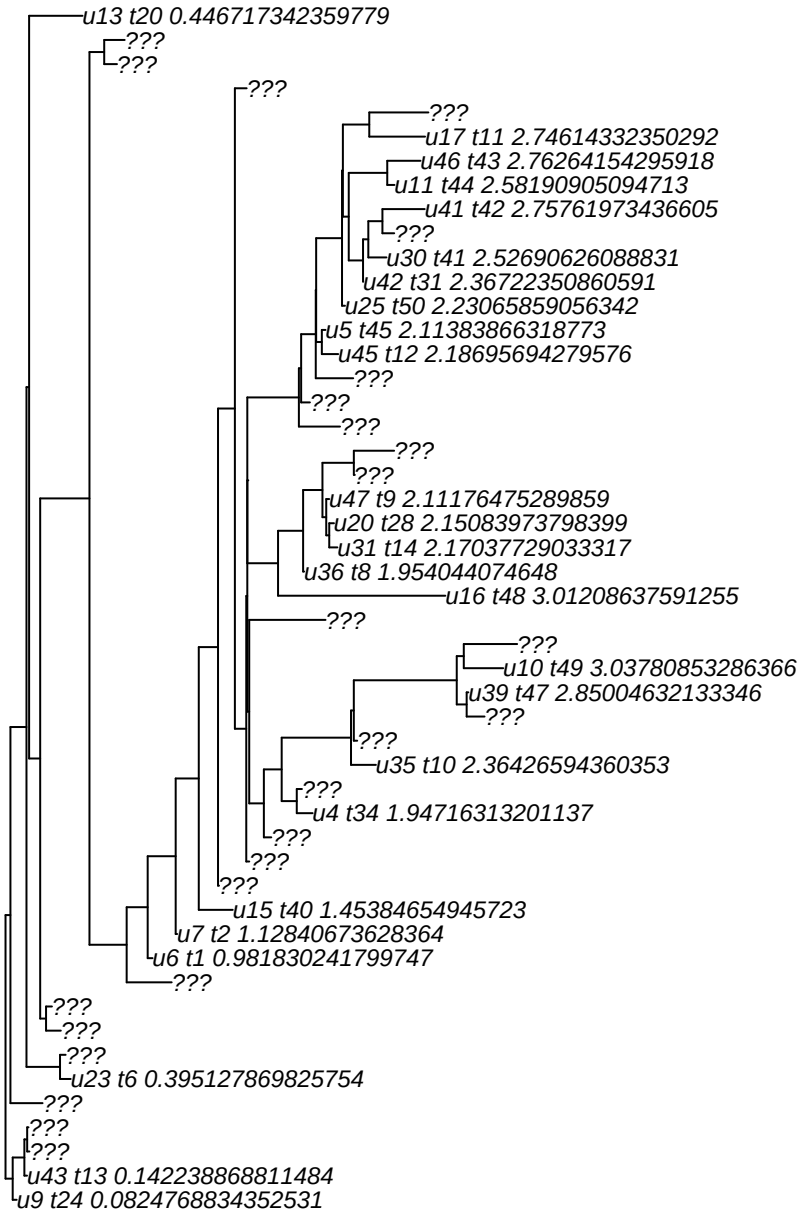

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00173291)
0.0
0.5
1.0
1.5
2.0
2.5
0.09223
0.07104
0.05537
0.05189

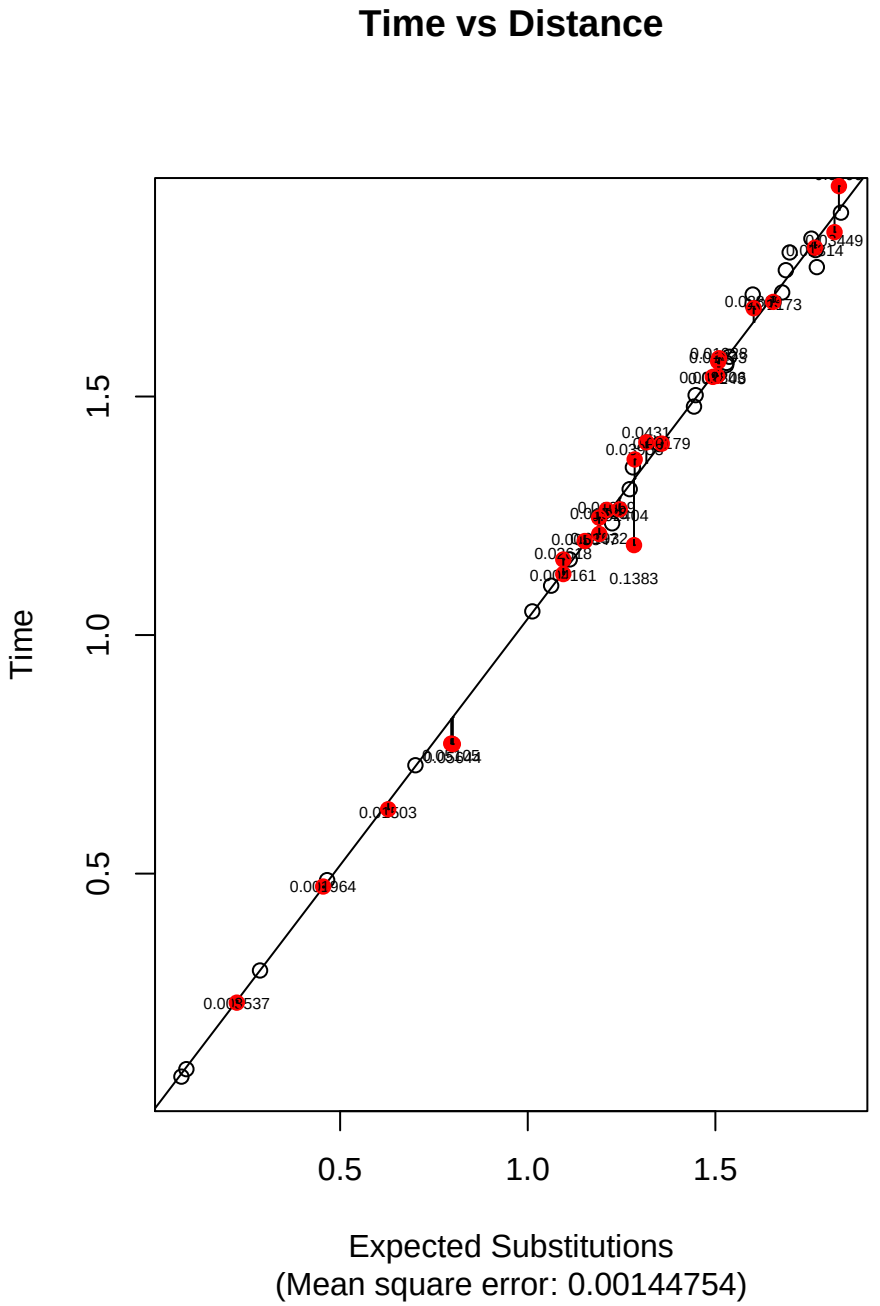

HIV RNA: Simulated−no.38 (Remove 25)
???
u47 t3 0.115161854615175
u1 t1 0.535838663484133
u18 t22 1.04704971433332
u32 t48 1.06309806841688
u36 t12 0.711789531295177
u6 t34 0.874970725955655
u29 t43 2.29251372390403
u12 t4 1.93079098973085
u35 t6 1.7334905071976
u33 t19 2.20961948965577
u48 t26 2.41133554678425
u9 t17 1.54751155777381
u11 t40 1.59938620114287
u46 t49 2.31628745714269
u38 t37 2.37542783114921
u3 t29 2.4840111855165
u21 t9 2.39680358339992
u49 t18 1.86644866406353
u7 t28 1.97275261659331
u40 t13 2.33911015263849
u8 t45 2.3885883947242
u43 t27 2.25896552690437
u26 t10 1.64386075619842
u10 t21 1.46924576844631
u5 t32 0.051310576548648

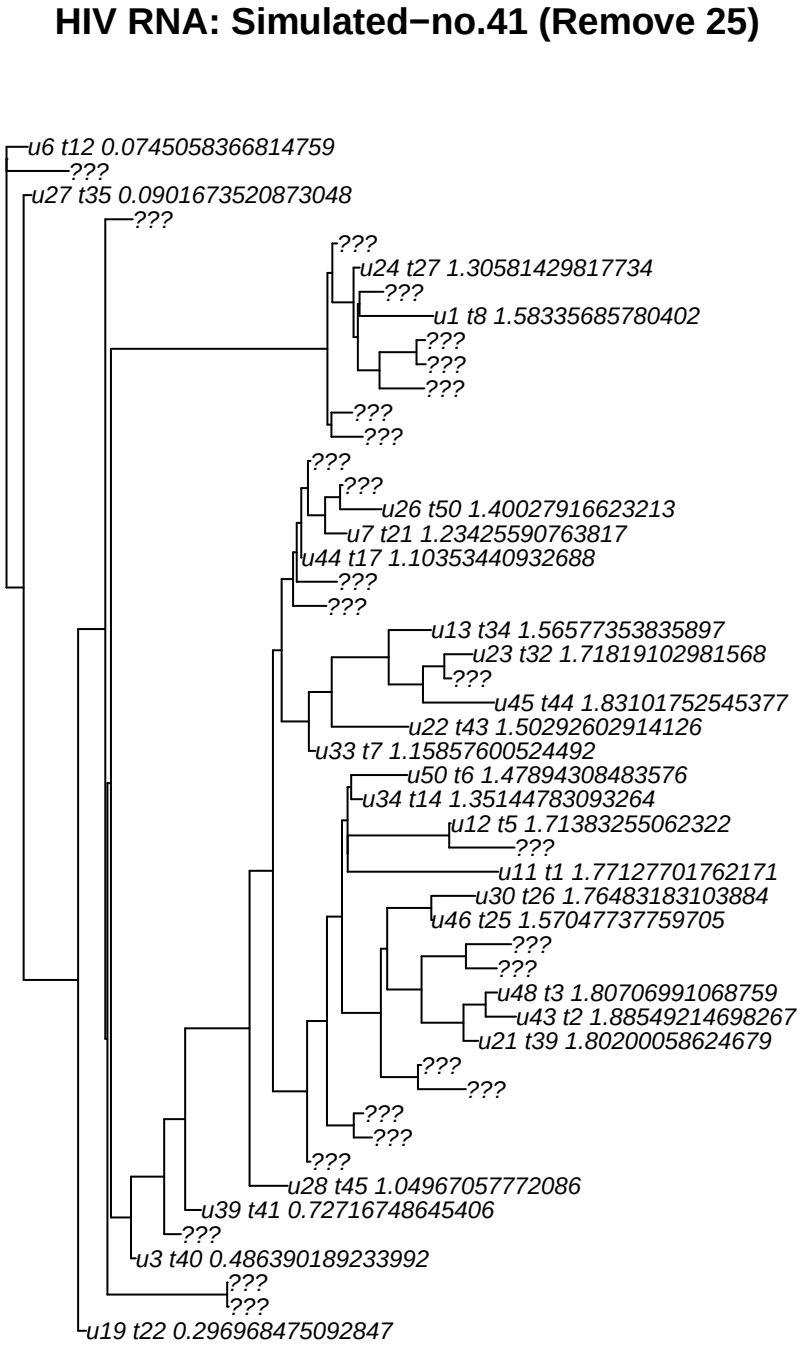

Time vs Distance
Time
0.0
0.5
1.0
1.5
0.0
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00409163)
0.04804
0.1002
0.09784
0.06615

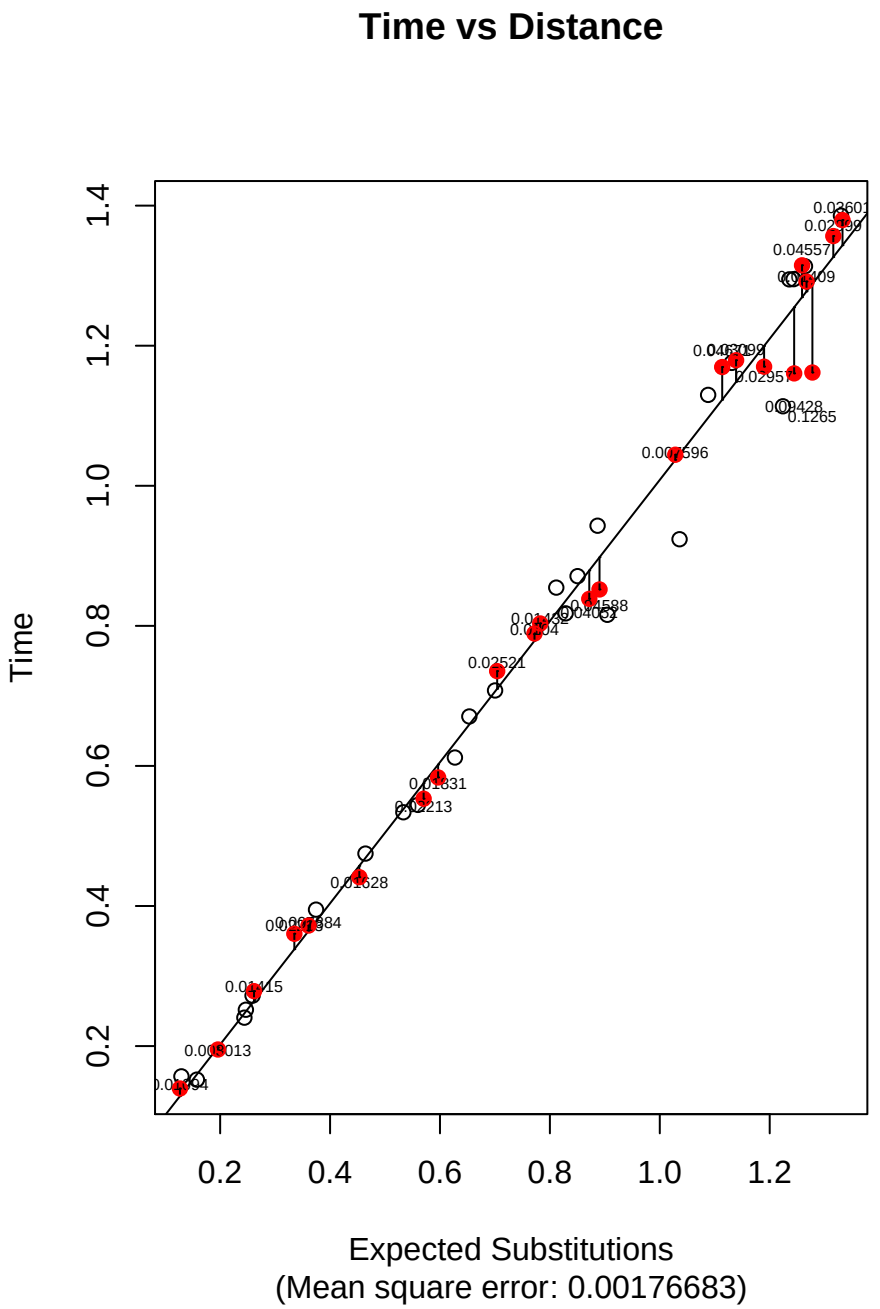

HIV RNA: Simulated−no.39 (Remove 25)
u13 t27 0.0203188053961722
???
u22 t48 1.144006133626
???
???
u2 t43 0.438171779159935
???
u20 t34 1.36540341062566
???
???
???
u38 t8 1.43556534947866
u19 t24 1.52891949199316
???
u29 t42 1.27935550161978
u4 t28 1.48317203786075
u21 t29 1.46006357269508
u40 t18 1.3324892788367
???
???
u10 t46 1.43018713441856
???
???
u35 t6 0.423967046641441
u11 t12 0.537058771070428
???
u23 t30 0.430267523297085
u47 t2 0.372005063244874
u46 t15 0.469574841374929
u7 t49 0.422317541068985
???
???
???
u33 t11 1.23263469954763
u16 t40 1.19315286878103
???
u9 t31 1.29027015664398
???
u41 t36 1.42716969263335
???
???
???
???
???
u32 t21 1.09160293697098
???
u49 t47 1.18371875299973
u34 t35 1.05614411872367
???
u25 t9 0.400669399151537

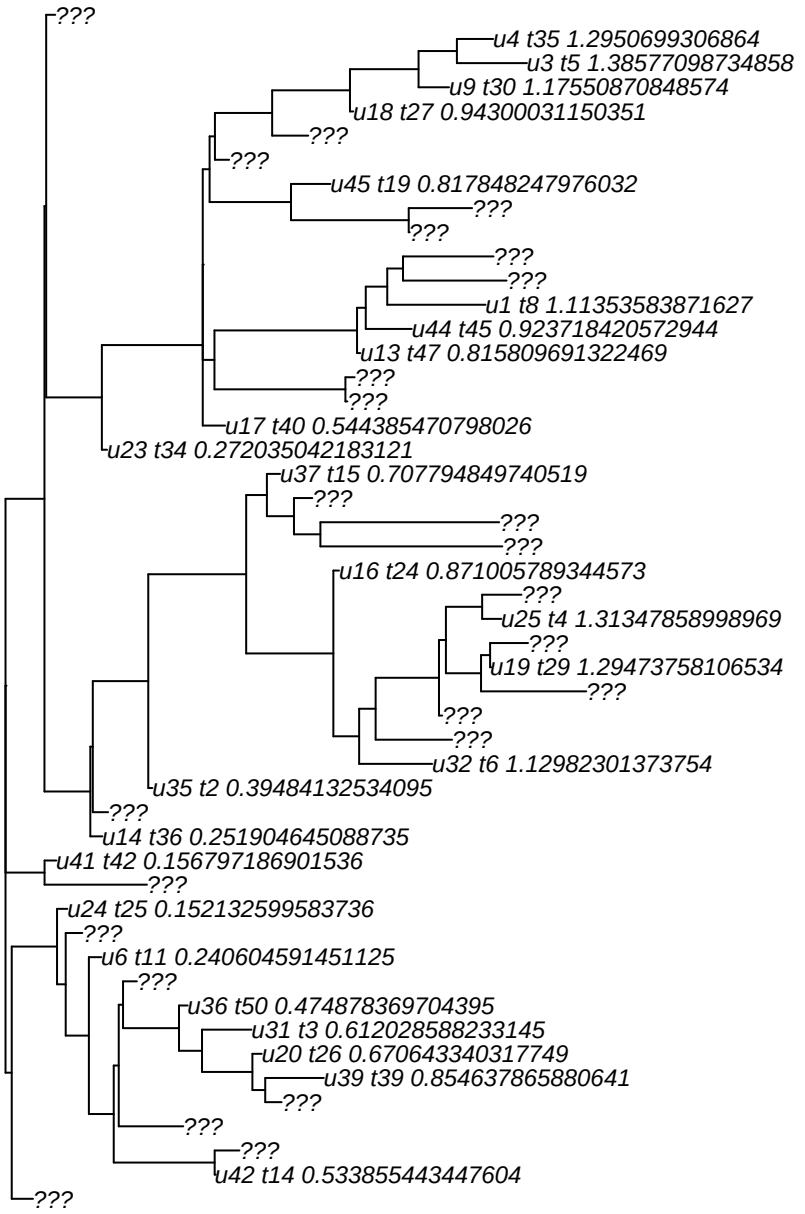

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00316482)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.1256
0.05702
0.06759

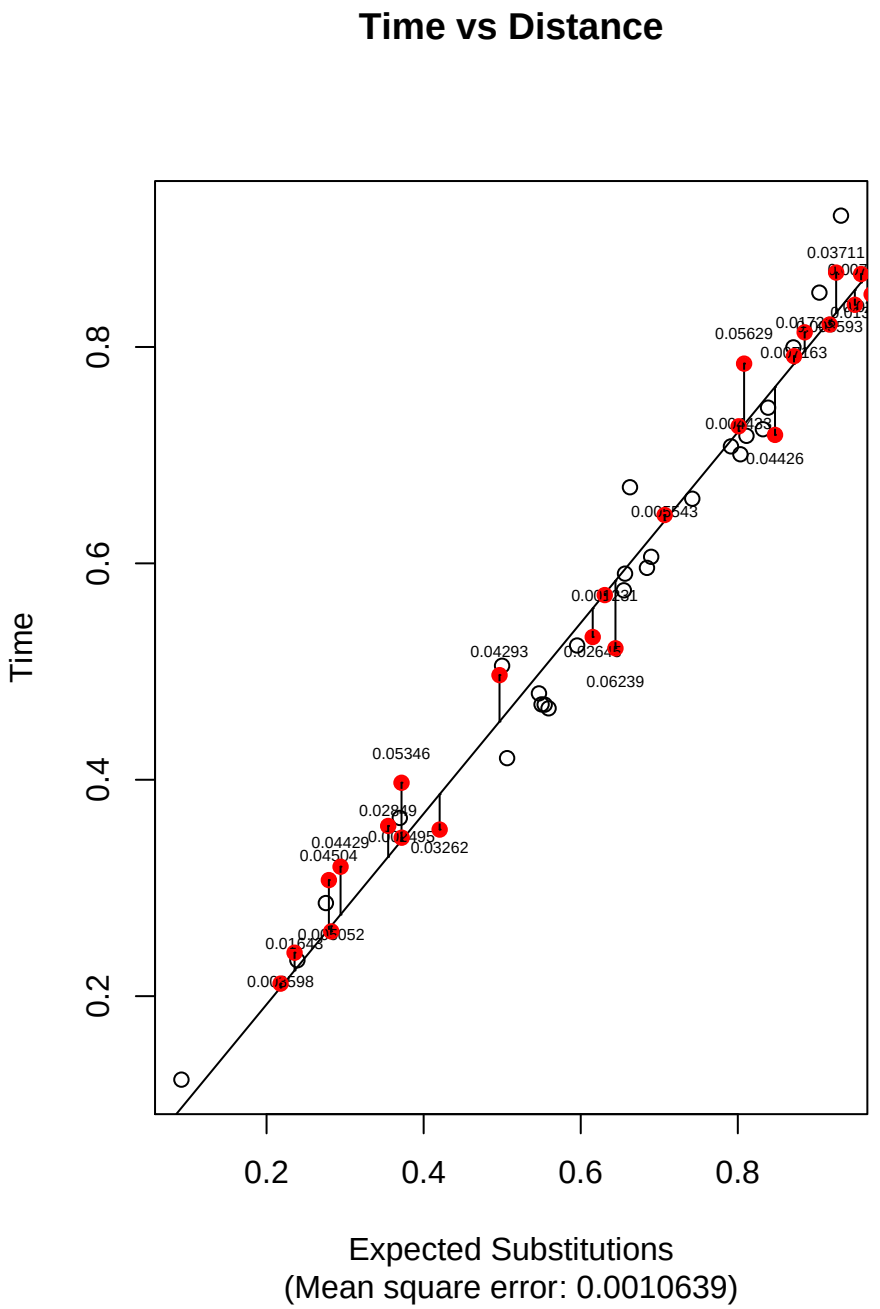

HIV RNA: Simulated−no.40 (Remove 25)
u13 t20 0.446717342359779
???
???
???
???
u17 t11 2.74614332350292
u46 t43 2.76264154295918
u11 t44 2.58190905094713
u41 t42 2.75761973436605
???
u30 t41 2.52690626088831
u42 t31 2.36722350860591
u25 t50 2.23065859056342
u5 t45 2.11383866318773
u45 t12 2.18695694279576
???
???
???
???
???
u47 t9 2.11176475289859
u20 t28 2.15083973798399
u31 t14 2.17037729033317
u36 t8 1.954044074648
u16 t48 3.01208637591255
???
???
u10 t49 3.03780853286366
u39 t47 2.85004632133346
???
???
u35 t10 2.36426594360353
???
u4 t34 1.94716313201137
???
???
???
u15 t40 1.45384654945723
u7 t2 1.12840673628364
u6 t1 0.981830241799747
???
???
???
???
u23 t6 0.395127869825754
???
???
???
???
u43 t13 0.142238868811484
u9 t24 0.0824768834352531

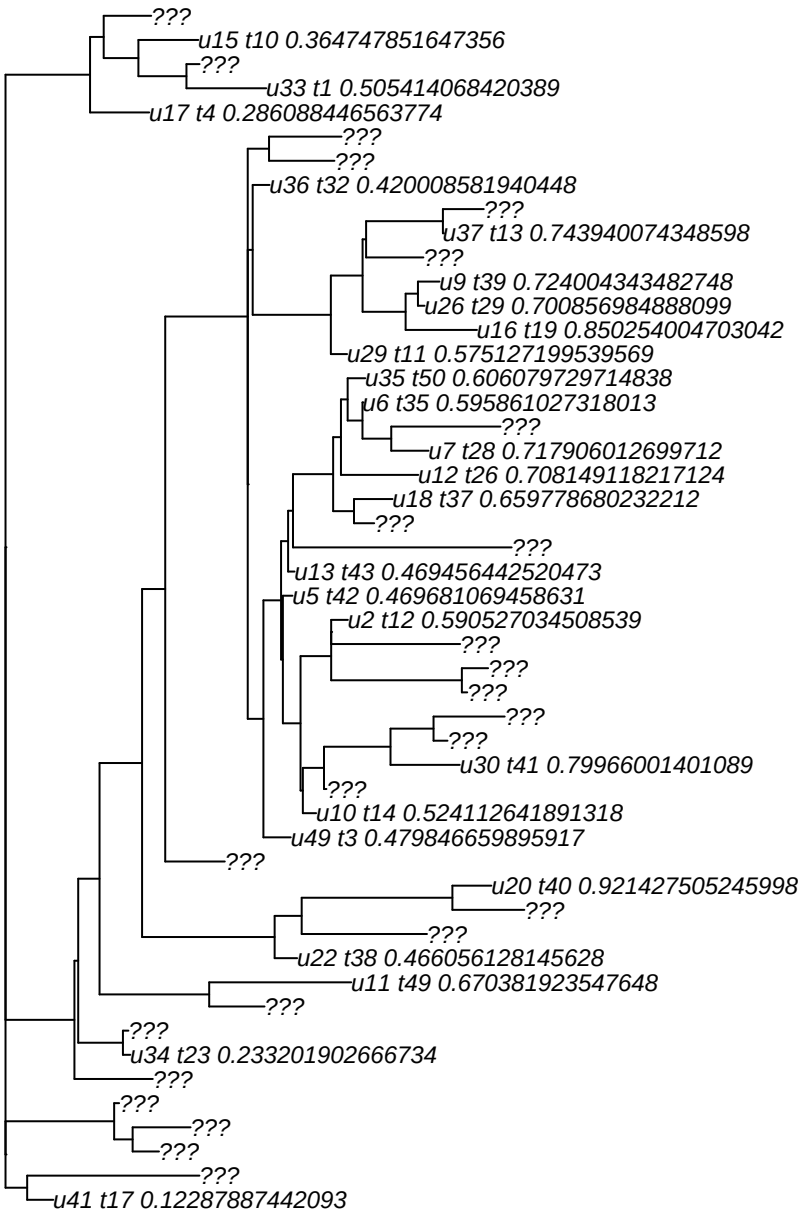

Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00144754)

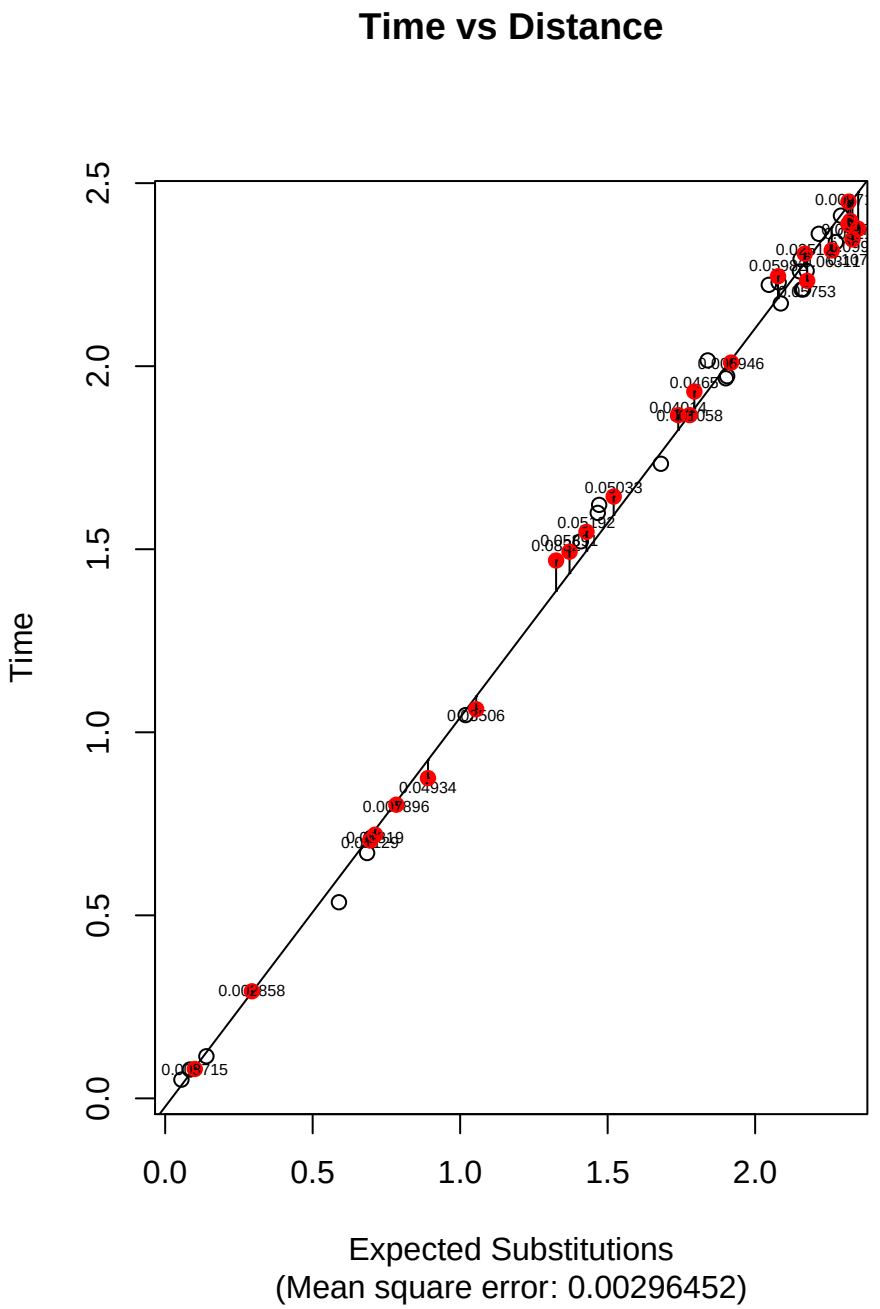

HIV RNA: Simulated−no.41 (Remove 25)
u6 t12 0.0745058366814759
???
u27 t35 0.0901673520873048
???
???
u24 t27 1.30581429817734
???
u1 t8 1.58335685780402
???
???
???
???
???
???
???
u26 t50 1.40027916623213
u7 t21 1.23425590763817
u44 t17 1.10353440932688
???
???
u13 t34 1.56577353835897
u23 t32 1.71819102981568
???
u45 t44 1.83101752545377
u22 t43 1.50292602914126
u33 t7 1.15857600524492
u50 t6 1.47894308483576
u34 t14 1.35144783093264
u12 t5 1.71383255062322
???
u11 t1 1.77127701762171
u30 t26 1.76483183103884
u46 t25 1.57047737759705
???
???
u48 t3 1.80706991068759
u43 t2 1.88549214698267
u21 t39 1.80200058624679
???
???
???
???
???
u28 t45 1.04967057772086
u39 t41 0.72716748645406
???
u3 t40 0.486390189233992
???
???
u19 t22 0.296968475092847

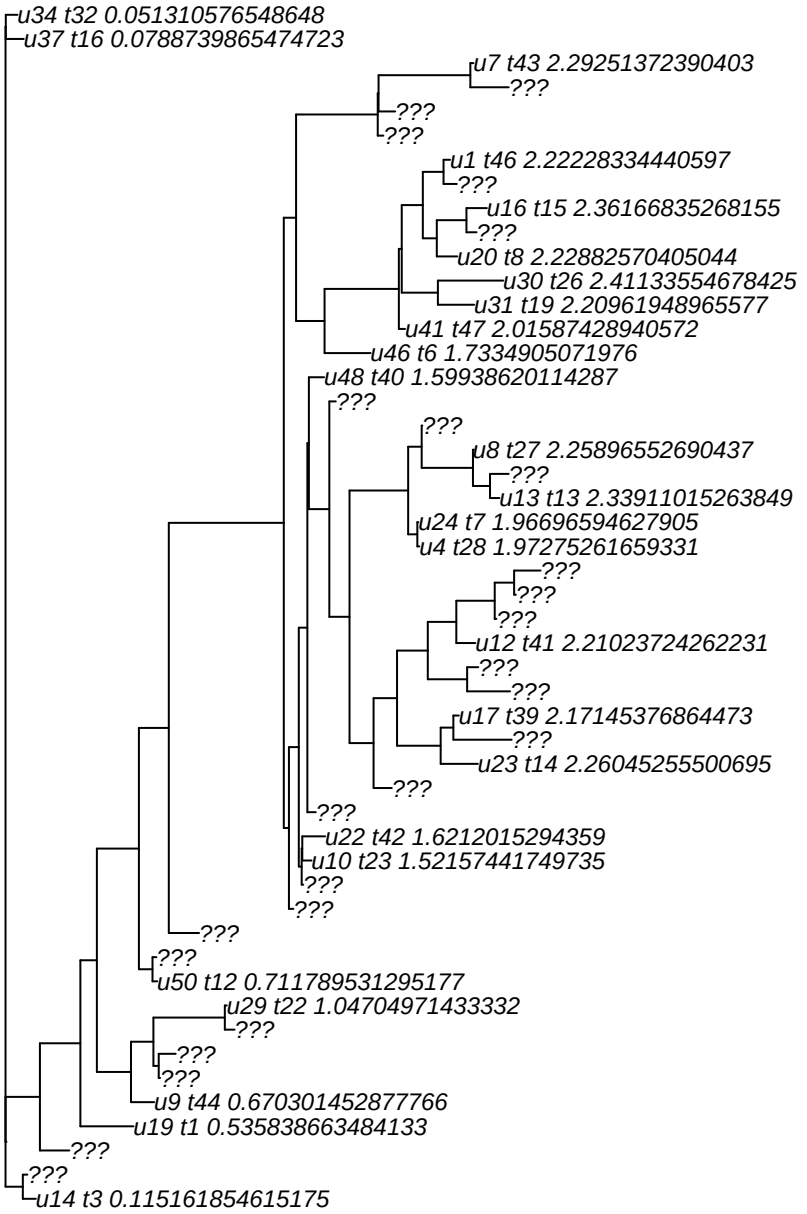

Time vs Distance
Time
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.2
0.4
0.6
0.8
1.0
1.2
Expected Substitutions
(Mean square error: 0.00176683)

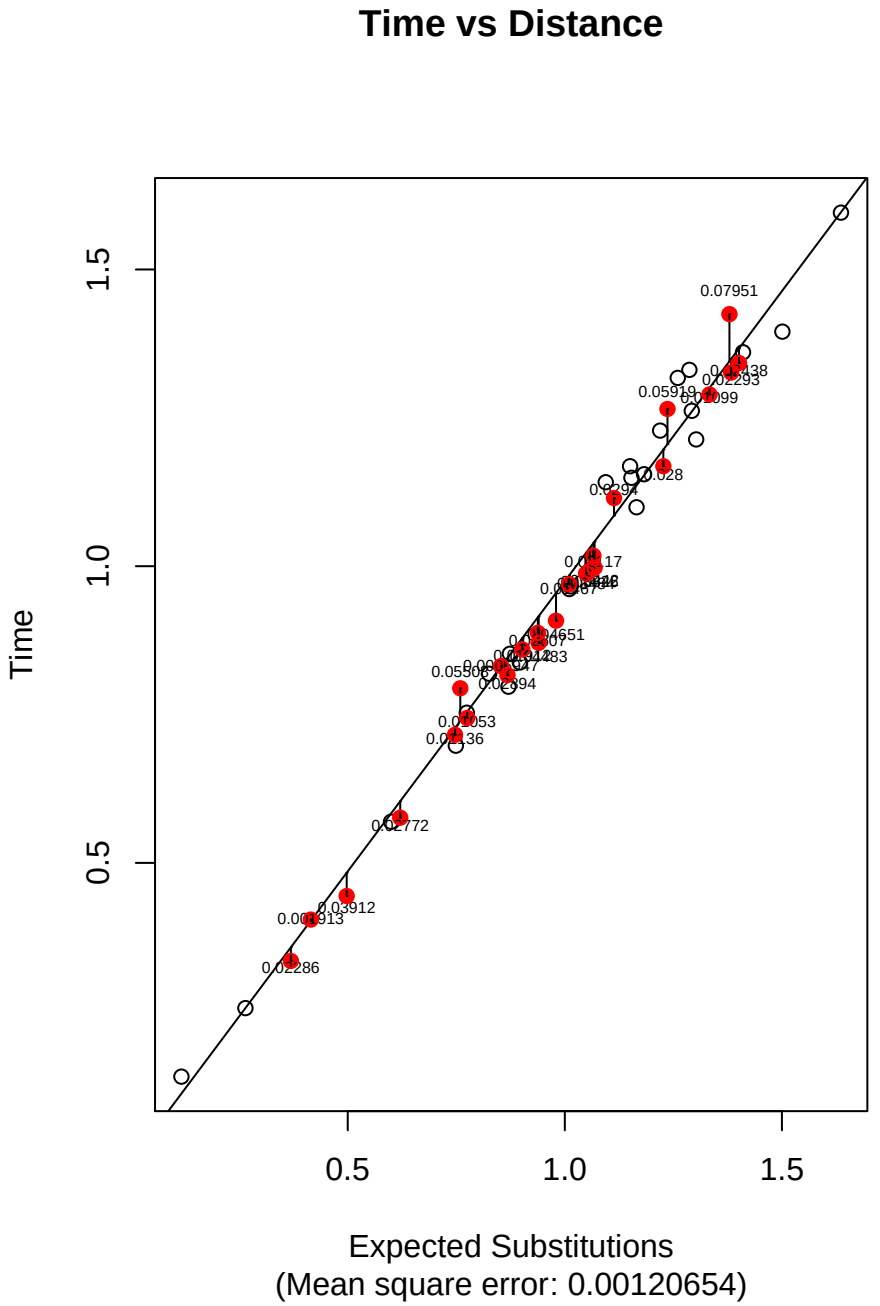

HIV RNA: Simulated−no.42 (Remove 25)
???
u4 t35 1.2950699306864
u3 t5 1.38577098734858
u9 t30 1.17550870848574
u18 t27 0.94300031150351
???
???
u45 t19 0.817848247976032
???
???
???
???
u1 t8 1.11353583871627
u44 t45 0.923718420572944
u13 t47 0.815809691322469
???
???
u17 t40 0.544385470798026
u23 t34 0.272035042183121
u37 t15 0.707794849740519
???
???
???
u16 t24 0.871005789344573
???
u25 t4 1.31347858998969
???
u19 t29 1.29473758106534
???
???
???
u32 t6 1.12982301373754
u35 t2 0.39484132534095
???
u14 t36 0.251904645088735
u41 t42 0.156797186901536
???
u24 t25 0.152132599583736
???
u6 t11 0.240604591451125
???
u36 t50 0.474878369704395
u31 t3 0.612028588233145
u20 t26 0.670643340317749
u39 t39 0.854637865880641
???
???
???
u42 t14 0.533855443447604
???

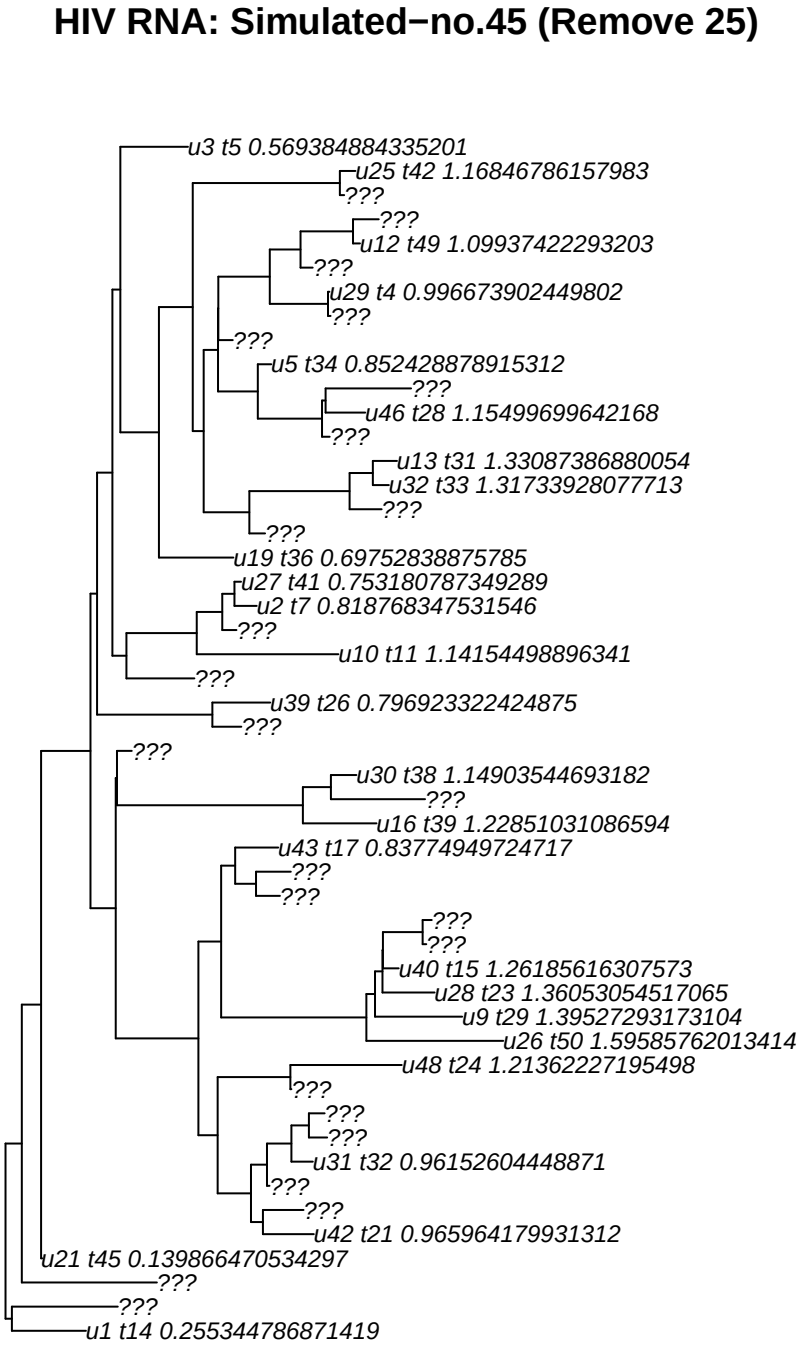

Time vs Distance
Time
0.2
0.4
0.6
0.8
0.2
0.4
0.6
0.8
Expected Substitutions
(Mean square error: 0.0010639)
0.03711
0.05629
0.04426
0.005543
0.04293
0.06239
0.05346
0.03262
0.04504
0.04429
0.006598

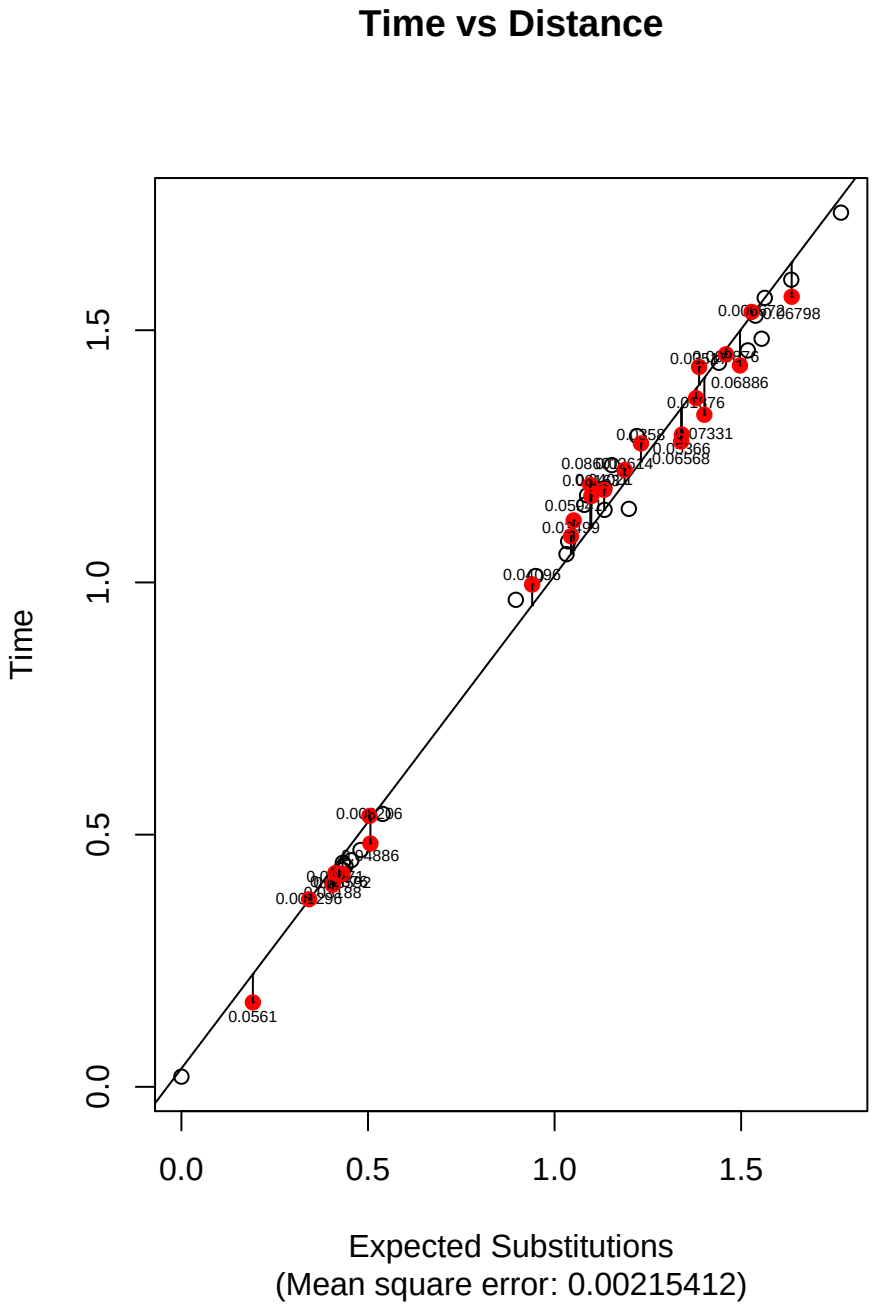

HIV RNA: Simulated−no.43 (Remove 25)
???
u15 t10 0.364747851647356
???
u33 t1 0.505414068420389
u17 t4 0.286088446563774
???
???
u36 t32 0.420008581940448
???
u37 t13 0.743940074348598
???
u9 t39 0.724004343482748
u26 t29 0.700856984888099
u16 t19 0.850254004703042
u29 t11 0.575127199539569
u35 t50 0.606079729714838
u6 t35 0.595861027318013
???
u7 t28 0.717906012699712
u12 t26 0.708149118217124
u18 t37 0.659778680232212
???
???
u13 t43 0.469456442520473
u5 t42 0.469681069458631
u2 t12 0.590527034508539
???
???
???
???
???
u30 t41 0.79966001401089
???
u10 t14 0.524112641891318
u49 t3 0.479846659895917
???
u20 t40 0.921427505245998
???
???
u22 t38 0.466056128145628
u11 t49 0.670381923547648
???
???
u34 t23 0.233201902666734
???
???
???
???
???
u41 t17 0.12287887442093

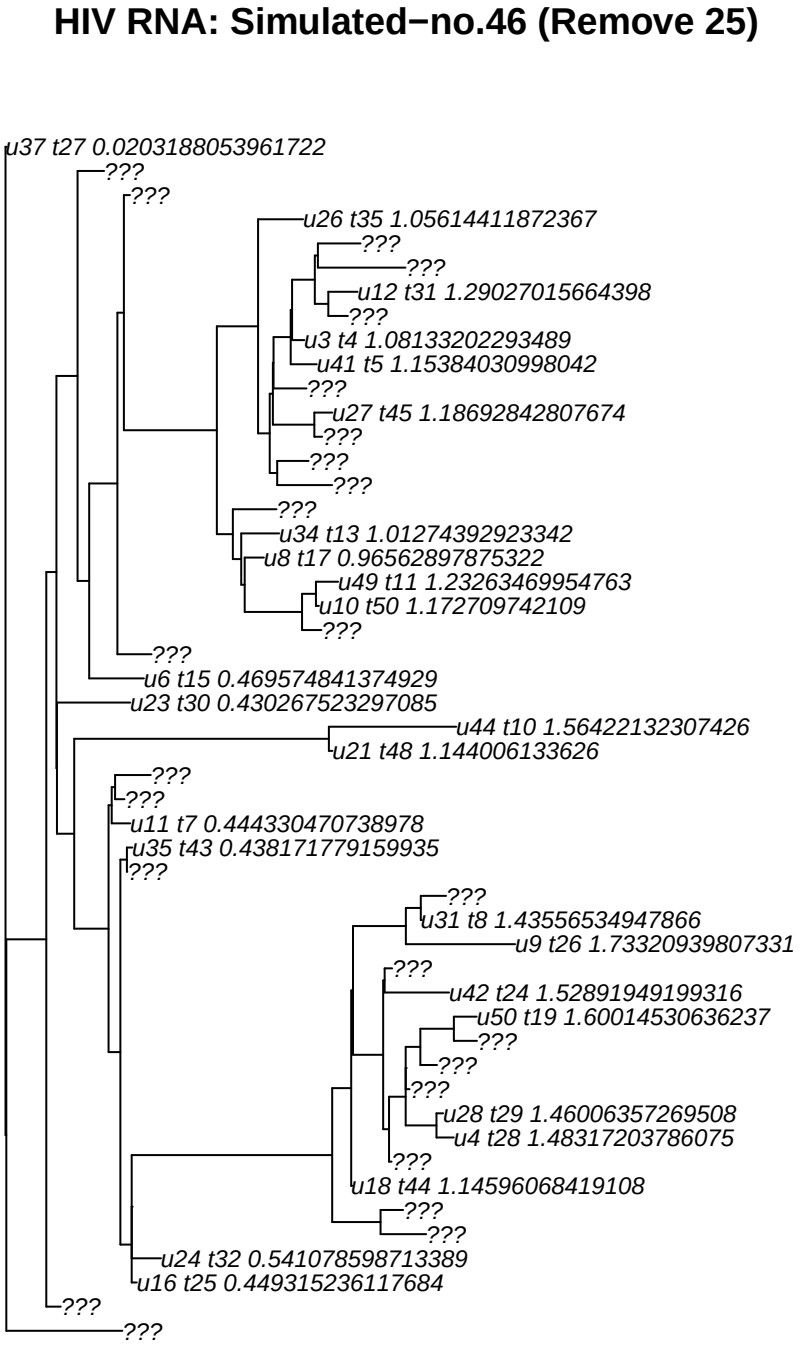

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00296452)
0.0
0.5
1.0
1.5
2.0
2.5

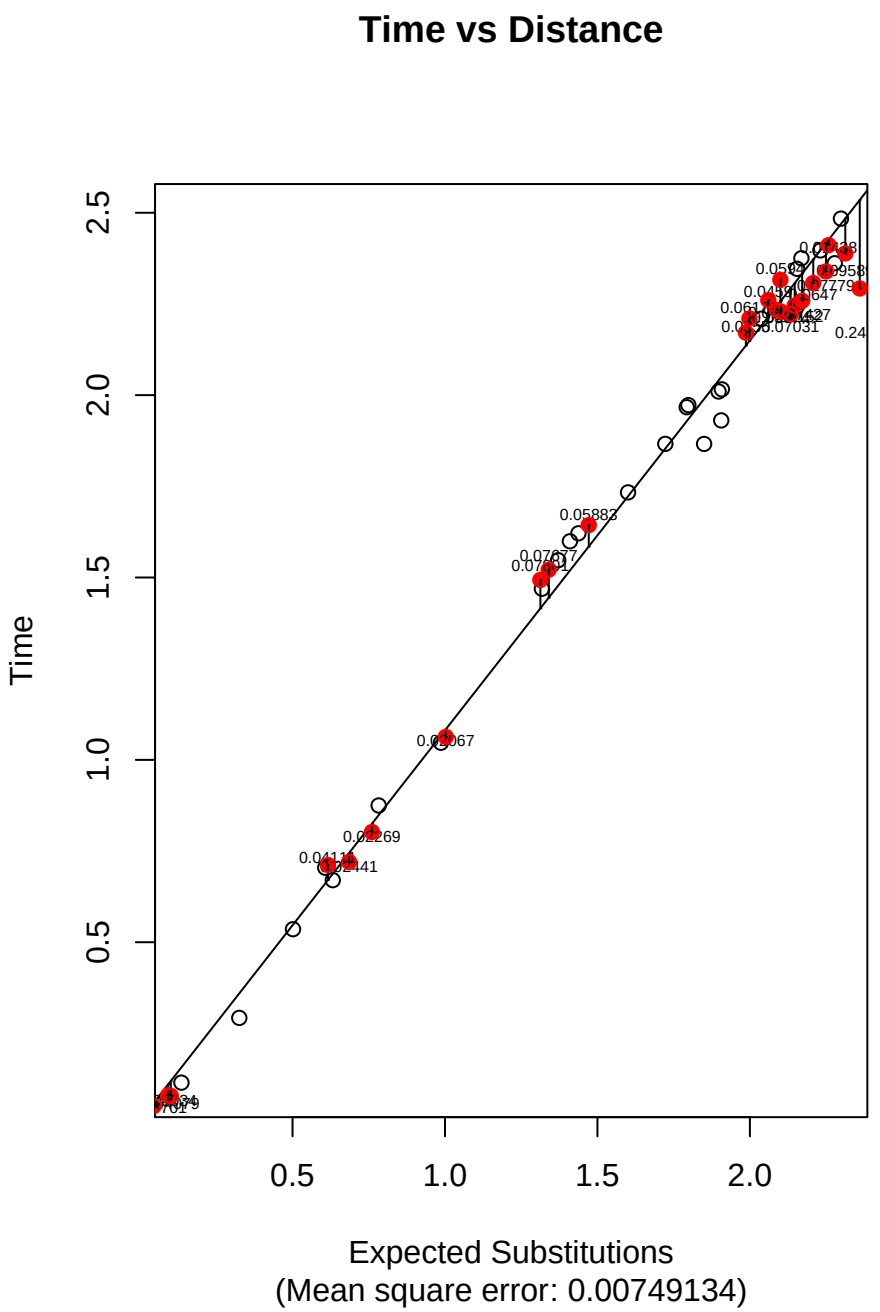

HIV RNA: Simulated−no.44 (Remove 25)
u34 t32 0.051310576548648
u37 t16 0.0788739865474723
u7 t43 2.29251372390403
u1 t46 2.22228334440597
u16 t15 2.36166835268155
u20 t8 2.22882570405044
u30 t26 2.41133554678425
u31 t19 2.20961948965577
u41 t47 2.01587428940572
u46 t6 1.7334905071976
u48 t40 1.59938620114287
u8 t27 2.25896552690437
u13 t13 2.33911015263849
u24 t7 1.96696594627905
u4 t28 1.97275261659331
u12 t41 2.21023724262231
u17 t39 2.17145376864473
u23 t14 2.26045255500695
u22 t42 1.6212015294359
u10 t23 1.52157441749735
u50 t12 0.711789531295177
u29 t22 1.04704971433332
u9 t44 0.670301452877766
u19 t1 0.535838663484133
u14 t3 0.115161854615175

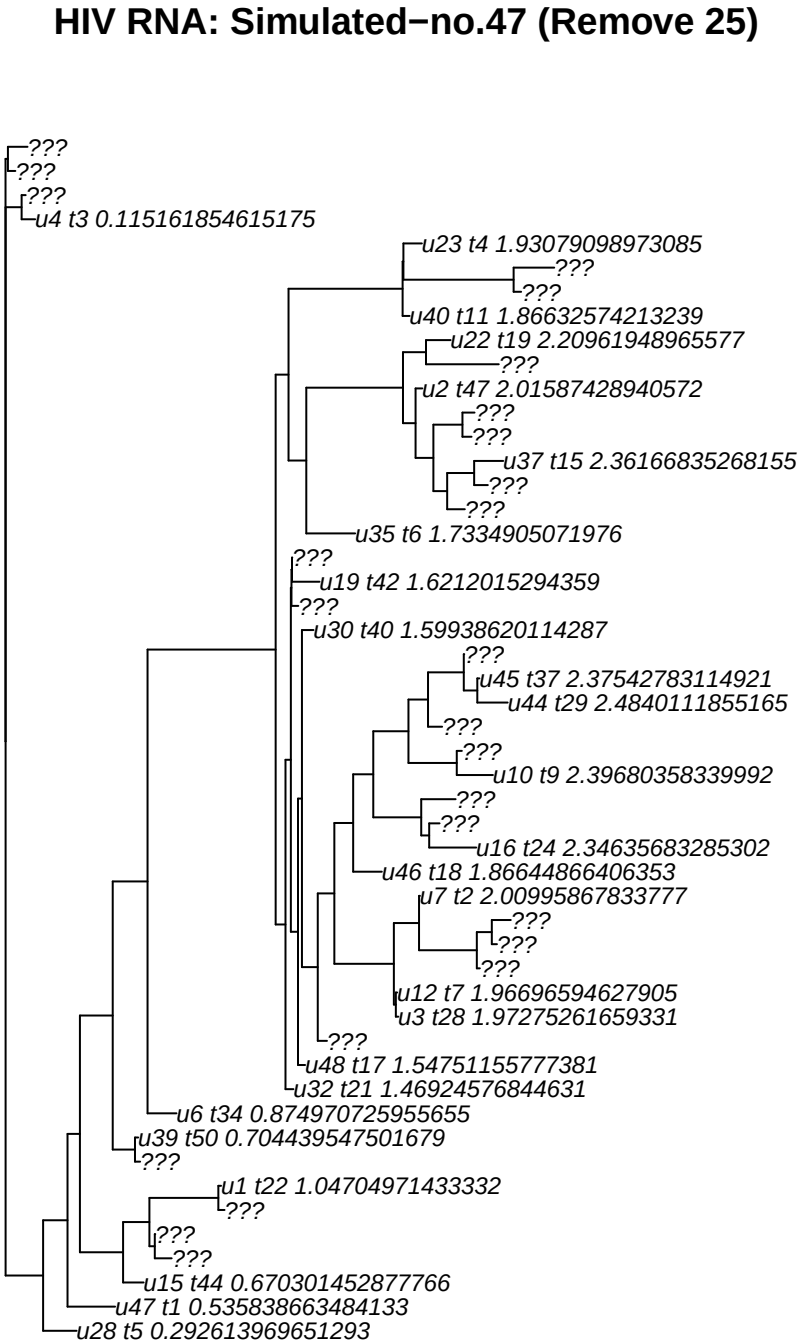

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00120654)
0.5
1.0
1.5
0.07951
0.05919
0.02293
0.01099
0.028
0.0294
0.01117
0.04651
0.05506
0.02894
0.01053
0.01136
0.02772
0.03912
0.001913
0.02286

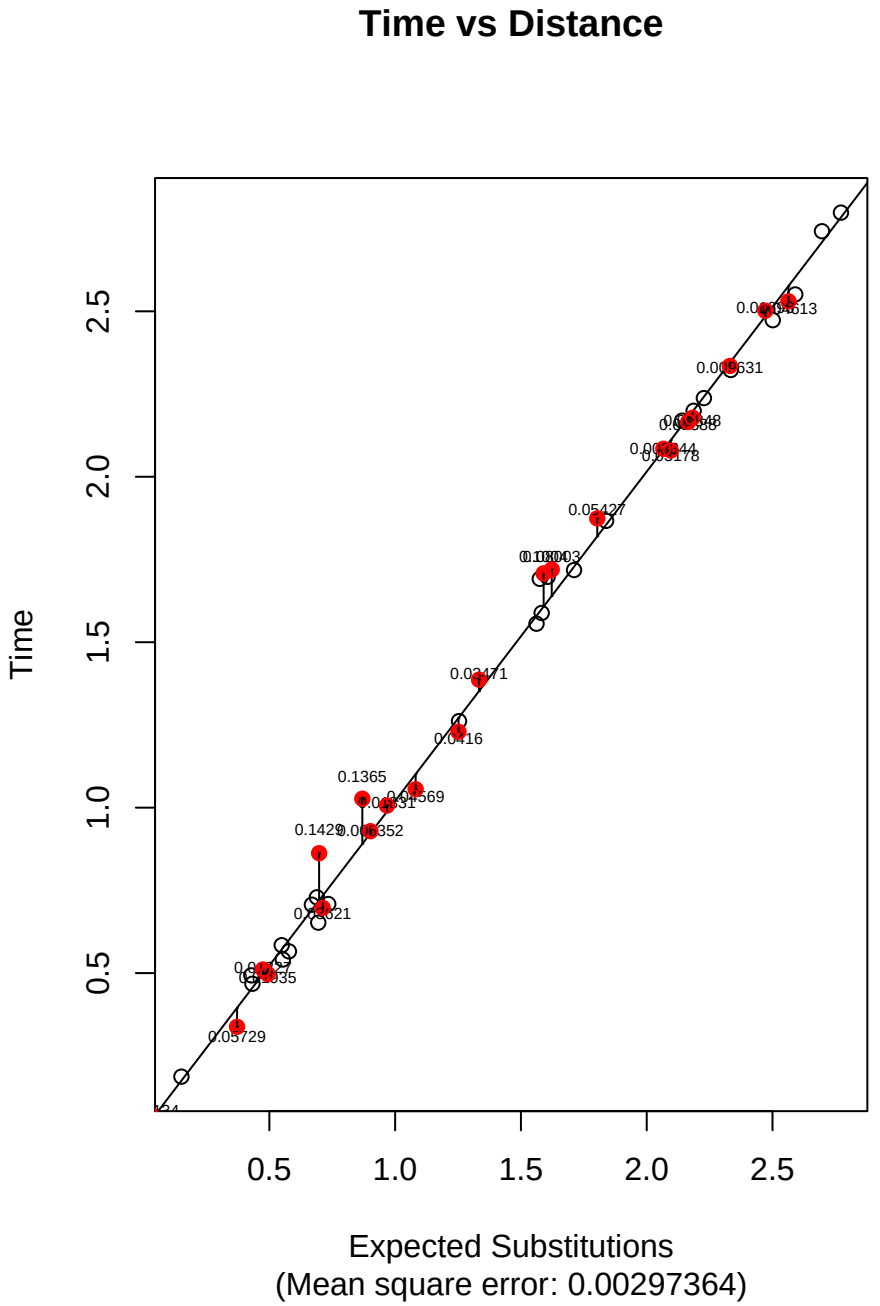

HIV RNA: Simulated−no.45 (Remove 25)
u3 t5 0.569384884335201
u25 t42 1.16846786157983
u12 t49 1.09937422293203
u29 t4 0.996673902449802
u5 t34 0.852428878915312
u46 t28 1.15499699642168
u13 t31 1.33087386880054
u32 t33 1.31733928077713
u19 t36 0.69752838875785
u27 t41 0.753180787349289
u2 t7 0.818768347531546
u10 t11 1.14154498896341
u39 t26 0.796923322424875
u30 t38 1.14903544693182
u16 t39 1.22851031086594
u43 t17 0.83774949724717
u40 t15 1.26185616307573
u28 t23 1.36053054517065
u9 t29 1.39527293173104
u26 t50 1.59585762013414
u48 t24 1.21362227195498
u31 t32 0.96152604448871
u42 t21 0.965964179931312
u21 t45 0.139866470534297
u1 t14 0.255344786871419

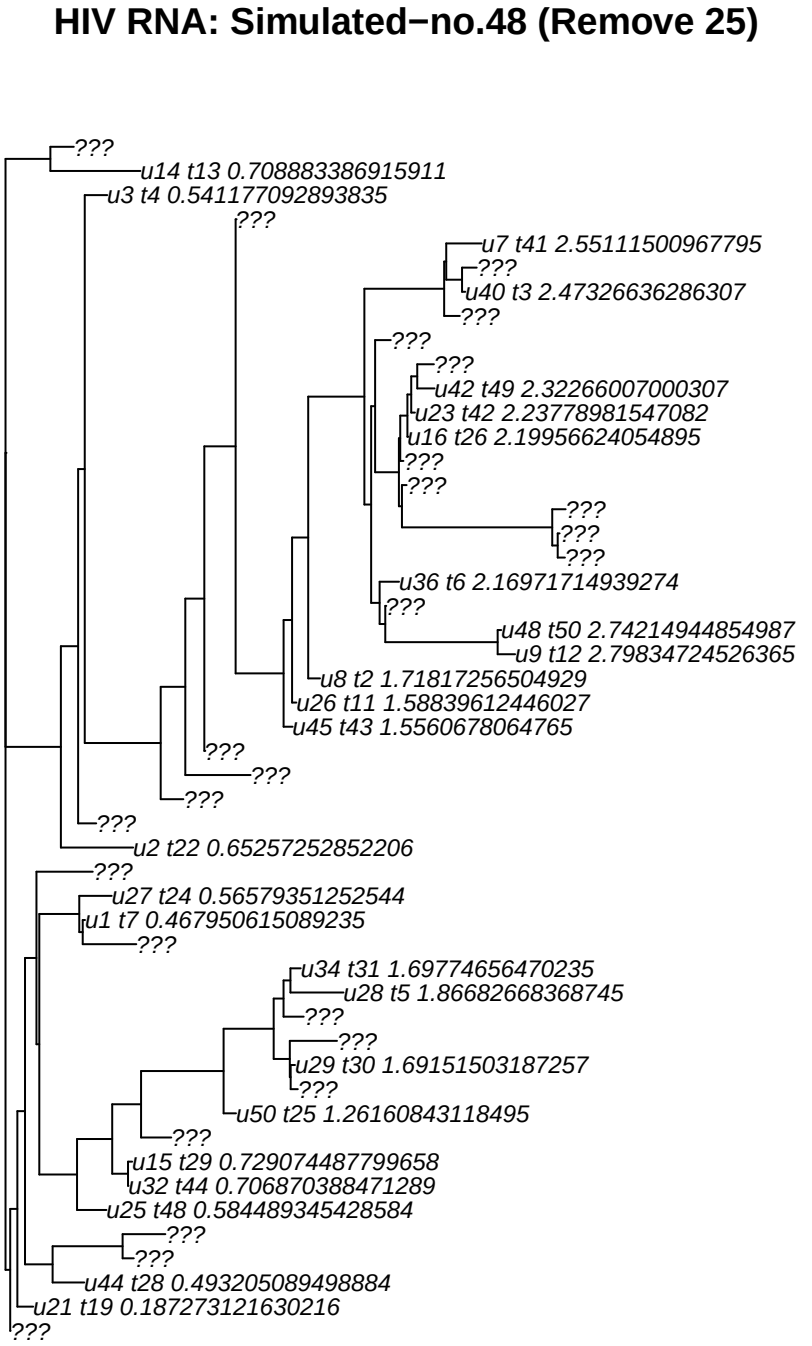

Time vs Distance
Time
0.0
0.5
1.0
1.5
0.0
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00215412)

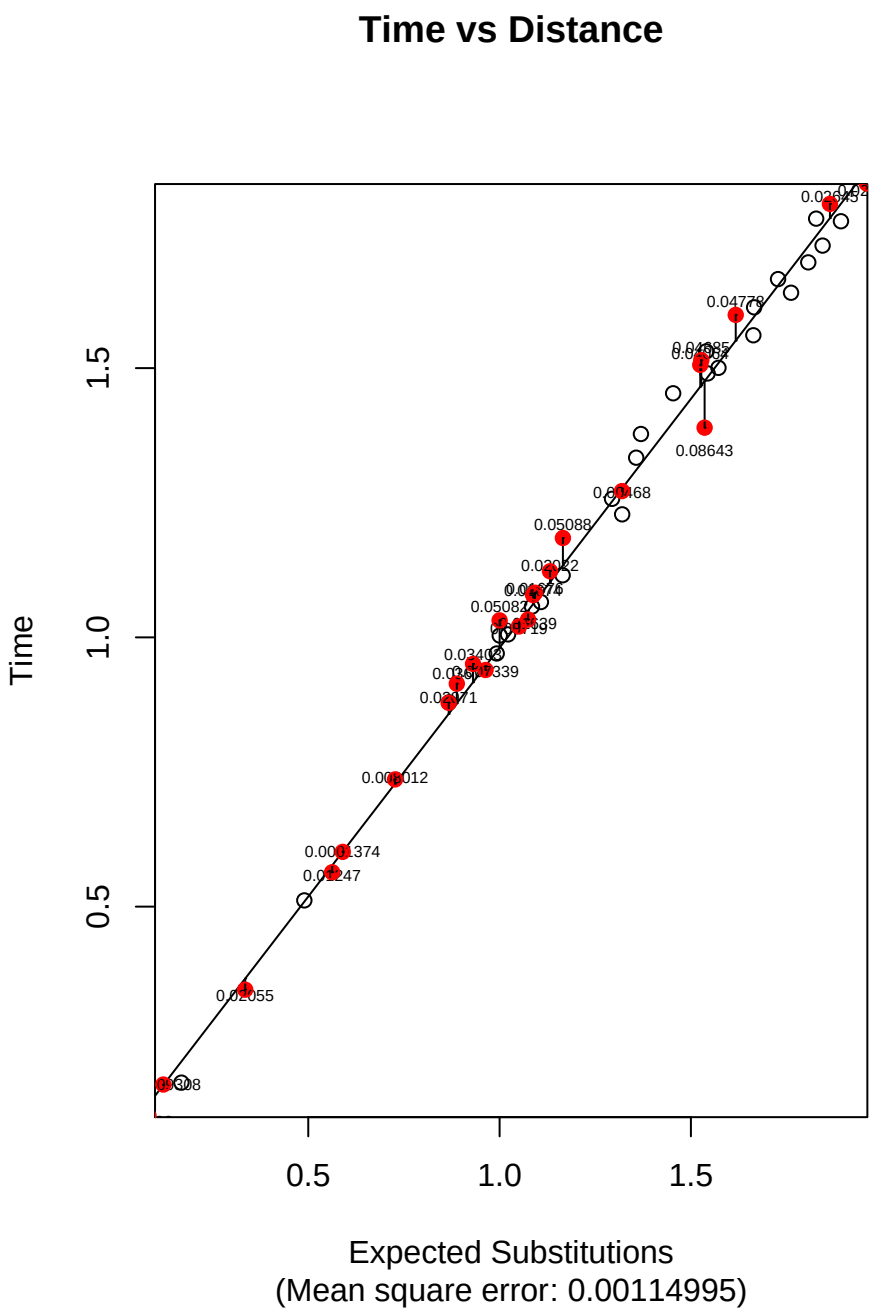

HIV RNA: Simulated−no.46 (Remove 25)
u37 t27 0.0203188053961722
???
???
u26 t35 1.05614411872367
???
???
u12 t31 1.29027015664398
???
u3 t4 1.08133202293489
u41 t5 1.15384030998042
???
u27 t45 1.18692842807674
???
???
???
???
u34 t13 1.01274392923342
u8 t17 0.96562897875322
u49 t11 1.23263469954763
u10 t50 1.172709742109
???
???
u6 t15 0.469574841374929
u23 t30 0.430267523297085
u44 t10 1.56422132307426
u21 t48 1.144006133626
???
???
u11 t7 0.444330470738978
u35 t43 0.438171779159935
???
???
u31 t8 1.43556534947866
u9 t26 1.73320939807331
???
u42 t24 1.52891949199316
u50 t19 1.60014530636237
???
???
???
u28 t29 1.46006357269508
u4 t28 1.48317203786075
???
u18 t44 1.14596068419108
???
???
u24 t32 0.541078598713389
u16 t25 0.449315236117684
???
???

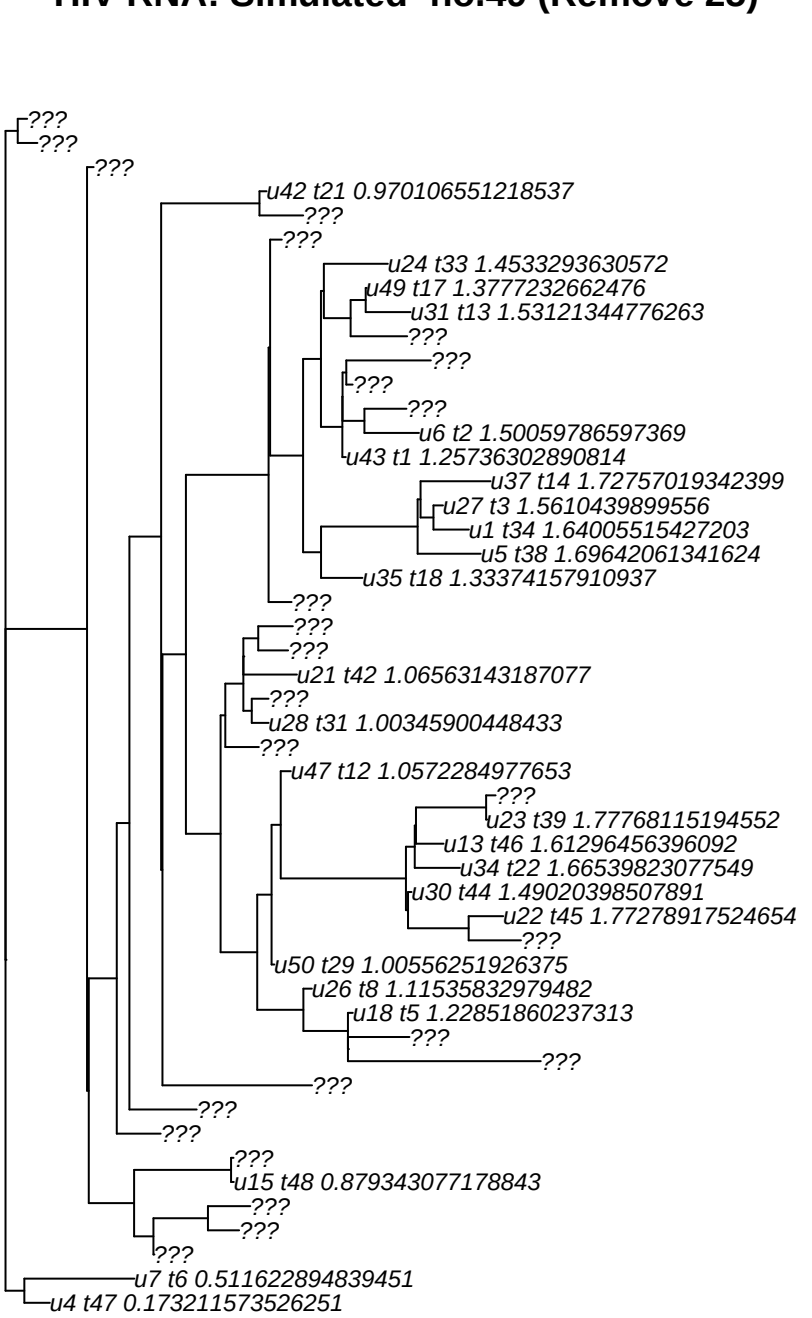

Time vs Distance
Time
0.5
1.0
1.5
2.0
2.5
0.5
1.0
1.5
2.0
Expected Substitutions
(Mean square error: 0.00749134)

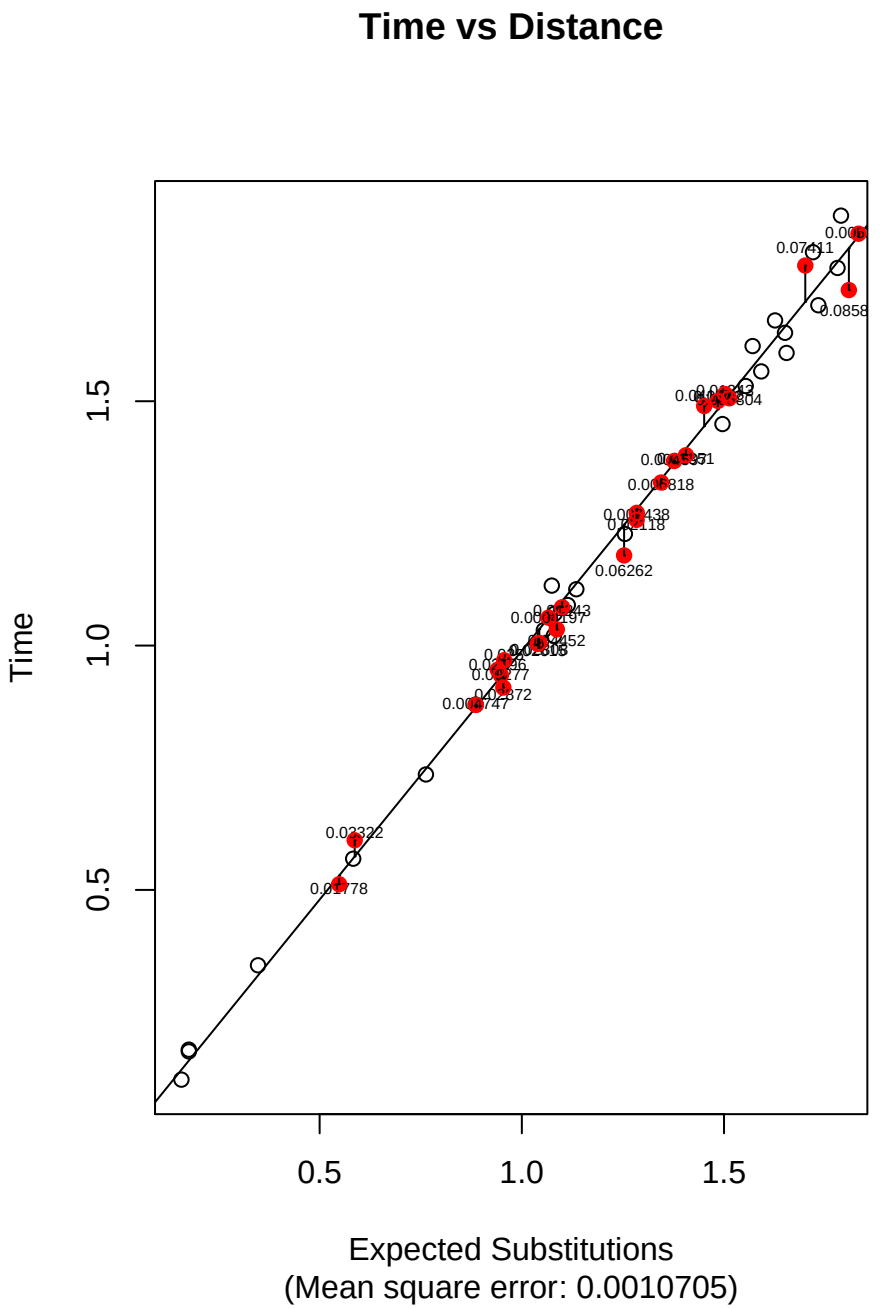

HIV RNA: Simulated−no.47 (Remove 25)
???
???
???
u4 t3 0.115161854615175
u23 t4 1.93079098973085
???
???
u40 t11 1.86632574213239
u22 t19 2.20961948965577
???
u2 t47 2.01587428940572
???
???
u37 t15 2.36166835268155
???
???
u35 t6 1.7334905071976
???
u19 t42 1.6212015294359
???
u30 t40 1.59938620114287
???
u45 t37 2.37542783114921
u44 t29 2.4840111855165
???
???
u10 t9 2.39680358339992
???
???
u16 t24 2.34635683285302
u46 t18 1.86644866406353
u7 t2 2.00995867833777
???
???
???
u12 t7 1.96696594627905
u3 t28 1.97275261659331
???
u48 t17 1.54751155777381
u32 t21 1.46924576844631
u6 t34 0.874970725955655
u39 t50 0.704439547501679
???
u1 t22 1.04704971433332
???
???
???
u15 t44 0.670301452877766
u47 t1 0.535838663484133
u28 t5 0.292613969651293

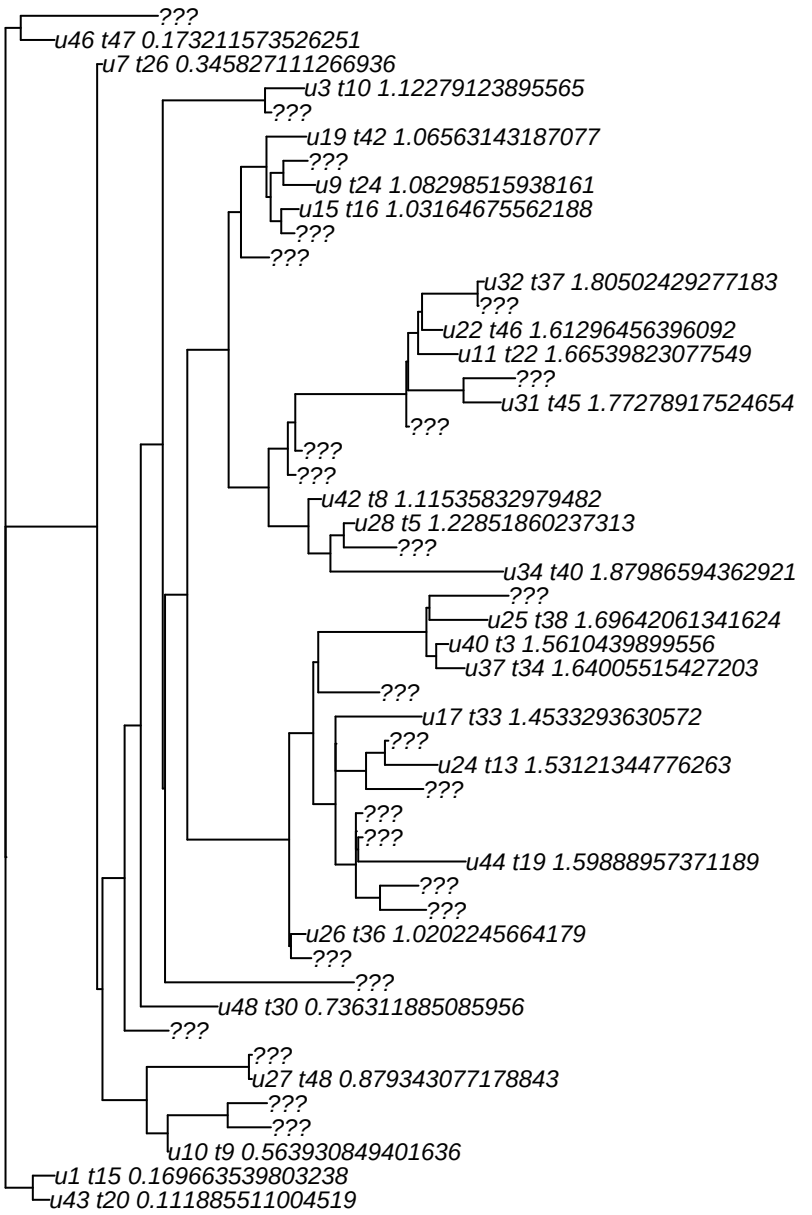

Time vs Distance
Time
0.5
1.0
1.5
2.0
2.5
0.05729
0.1365
0.1429
0.054427
0.03471
0.0416
Expected Substitutions
(Mean square error: 0.00297364)

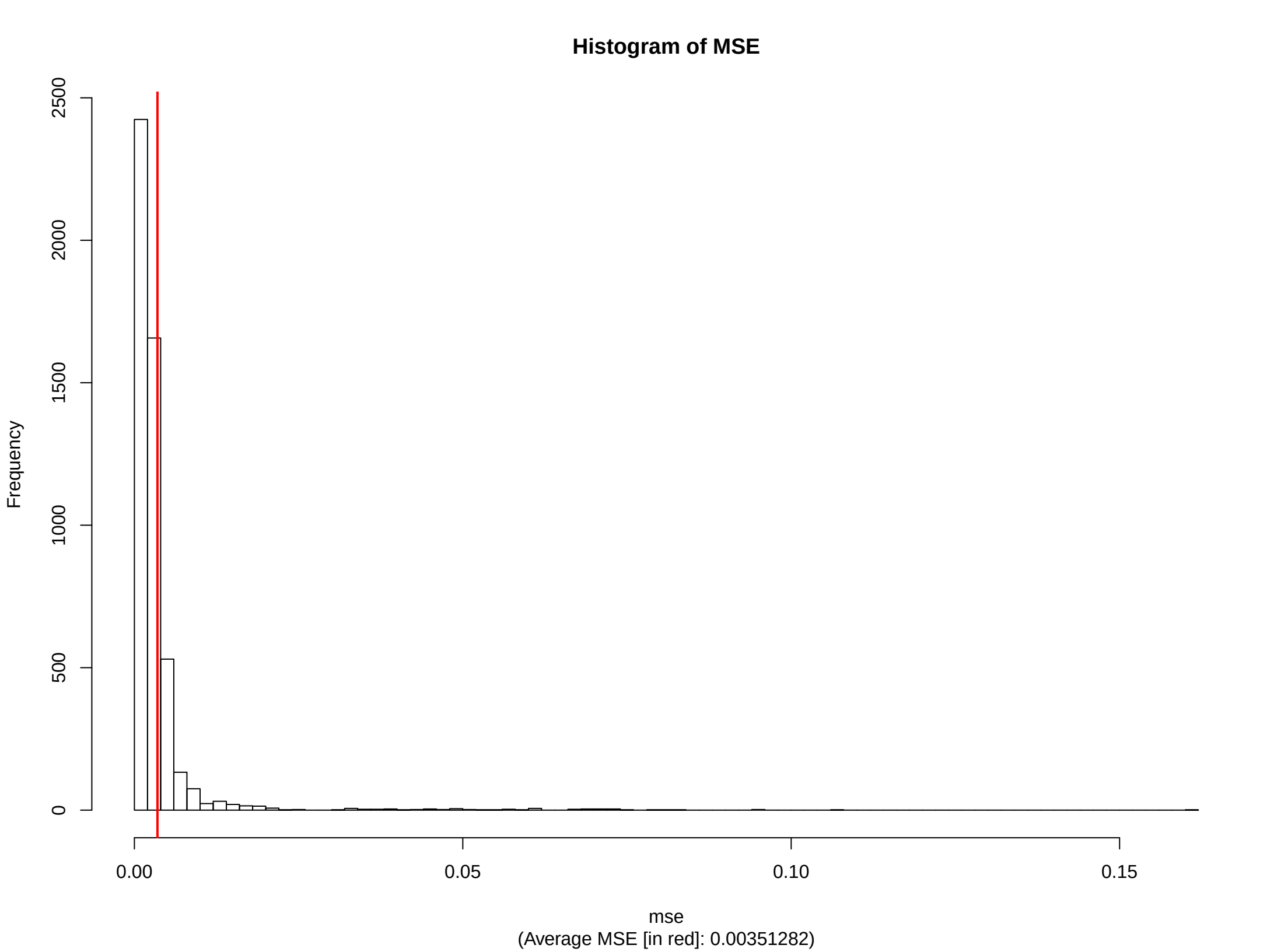

HIV RNA: Simulated−no.48 (Remove 25)
???
u14 t13 0.708883386915911
u3 t4 0.541177092893835
u7 t41 2.55111500967795
u40 t3 2.47326636286307
u42 t49 2.32266007000307
u23 t42 2.23778981547082
u16 t26 2.19956624054895
u36 t6 2.16971714939274
u48 t50 2.74214944854987
u9 t12 2.79834724526365
u8 t2 1.71817256504929
u26 t11 1.58839612446027
u45 t43 1.5560678064765
u2 t22 0.65257252852206
u27 t24 0.56579351252544
u1 t7 0.467950615089235
u34 t31 1.69774656470235
u28 t5 1.86682668368745
u29 t30 1.69151503187257
u50 t25 1.26160843118495
u15 t29 0.729074487799658
u32 t44 0.706870388471289
u25 t48 0.584489345428584
u44 t28 0.493205089498884
u21 t19 0.187273121630216


Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.00114995)


HIV RNA: Simulated−no.49 (Remove 25)
???
???
???
u42 t21 0.970106551218537
???
???
u24 t33 1.4533293630572
u49 t17 1.3777232662476
u31 t13 1.53121344776263
???
???
???
???
u6 t2 1.50059786597369
u43 t1 1.25736302890814
u37 t14 1.72757019342399
u27 t3 1.5610439899556
u1 t34 1.64005515427203
u5 t38 1.69642061341624
u35 t18 1.33374157910937
???
???
???
u21 t42 1.06563143187077
???
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
???
u50 t29 1.00556251926375
u26 t8 1.11535832979482
u18 t5 1.22851860237313
???
???
???
???
???
???
u15 t48 0.879343077178843
???
???
???
u7 t6 0.511622894839451
u4 t47 0.173211573526251


Time vs Distance
Time
0.5
1.0
1.5
0.5
1.0
1.5
Expected Substitutions
(Mean square error: 0.0010705)


HIV RNA: Simulated−no.50 (Remove 25)
???
u46 t47 0.173211573526251
u7 t26 0.345827111266936
u3 t10 1.12279123895565
???
u19 t42 1.06563143187077
???
u9 t24 1.08298515938161
u15 t16 1.03164675562188
???
???
u32 t37 1.80502429277183
???
u22 t46 1.61296456396092
u11 t22 1.66539823077549
???
u31 t45 1.77278917524654
???
???
???
u42 t8 1.11535832979482
u28 t5 1.22851860237313
???
u34 t40 1.87986594362921
???
u25 t38 1.69642061341624
u40 t3 1.5610439899556
u37 t34 1.64005515427203
???
u17 t33 1.4533293630572
???
u24 t13 1.53121344776263
???
???
???
u44 t19 1.59888957371189
???
???
u26 t36 1.0202245664179
???
???
u48 t30 0.736311885085956
???
???
u27 t48 0.879343077178843
???
???
u10 t9 0.563930849401636
u1 t15 0.169663539803238
u43 t20 0.111885511004519


Histogram of MSE
Frequency
0
500
1000
1500
2000
2500
0.00
0.05
0.10
0.15
mse
(Average MSE [in red]: 0.00351282)