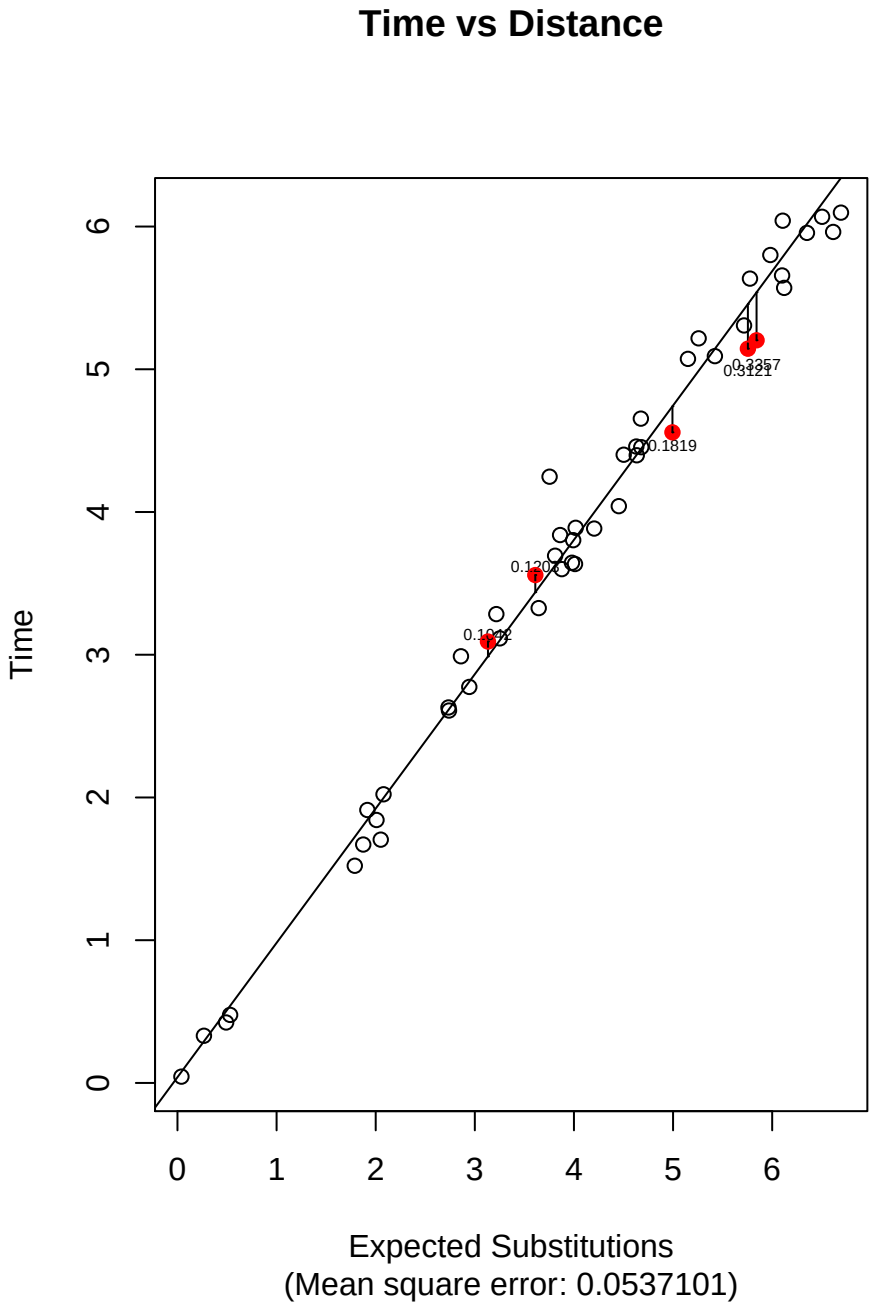
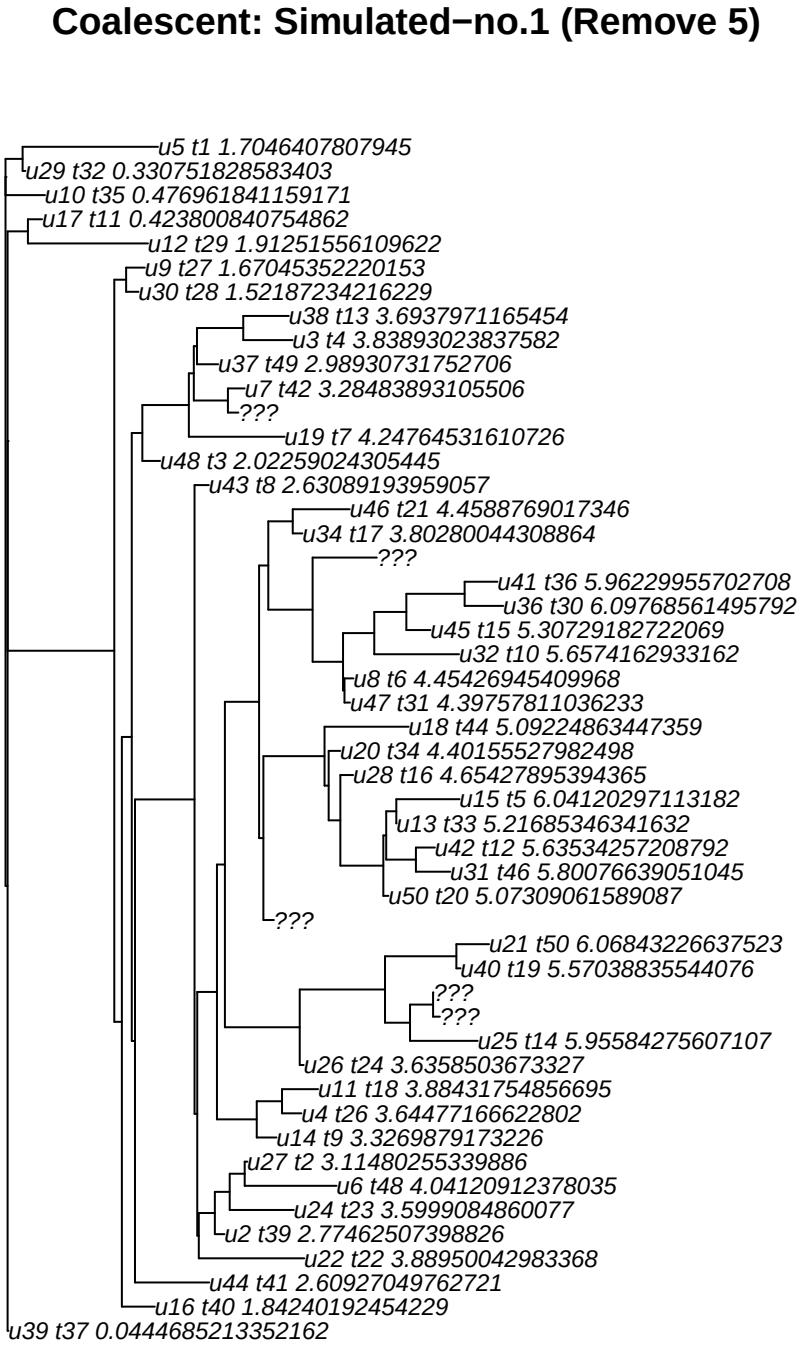
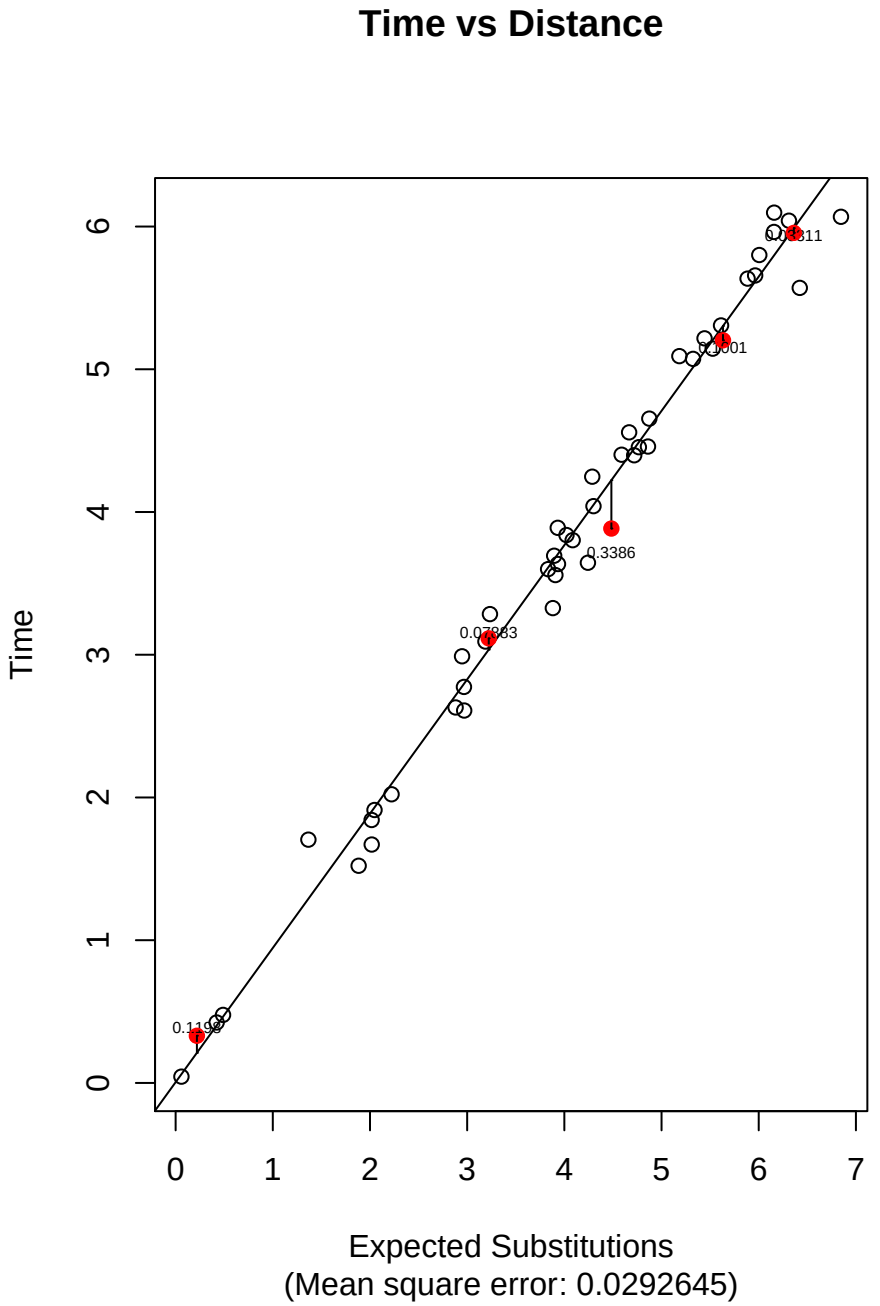
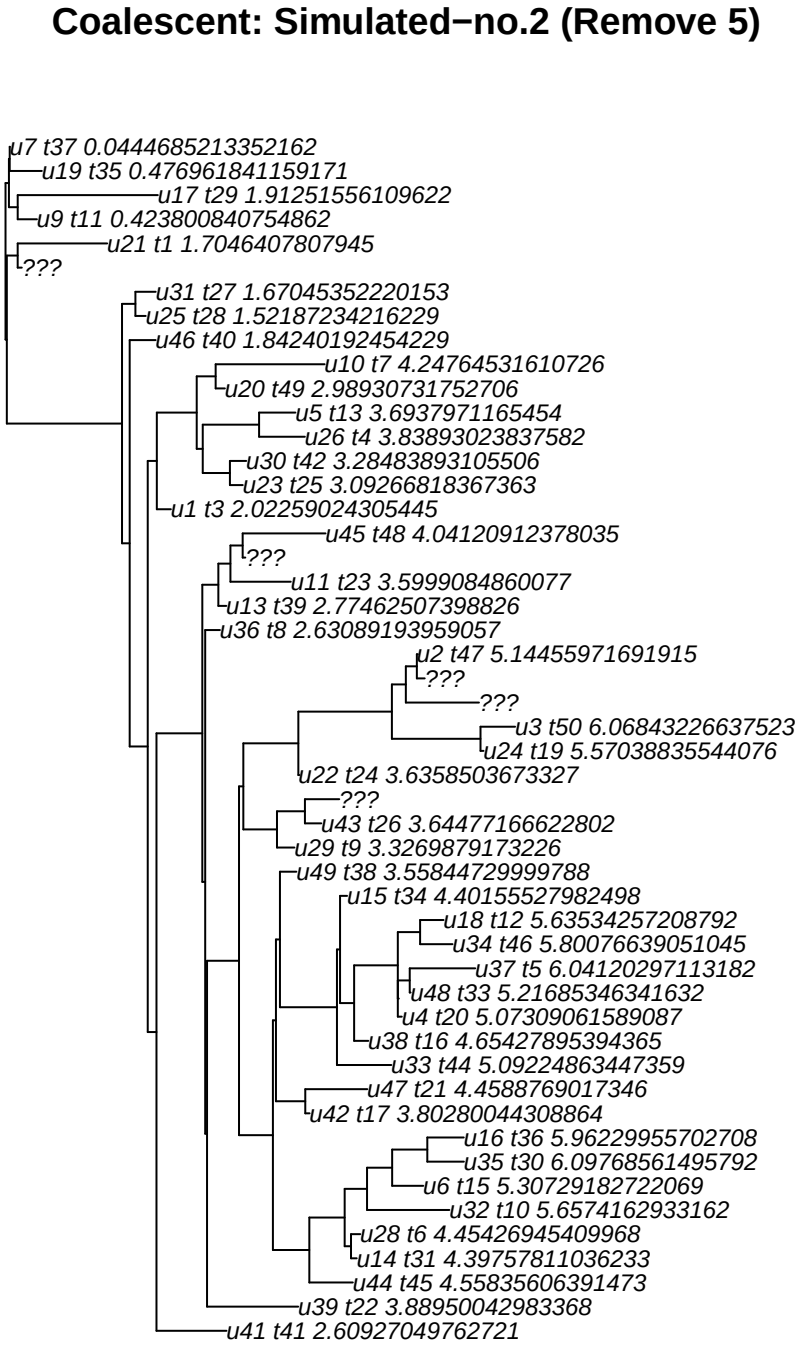
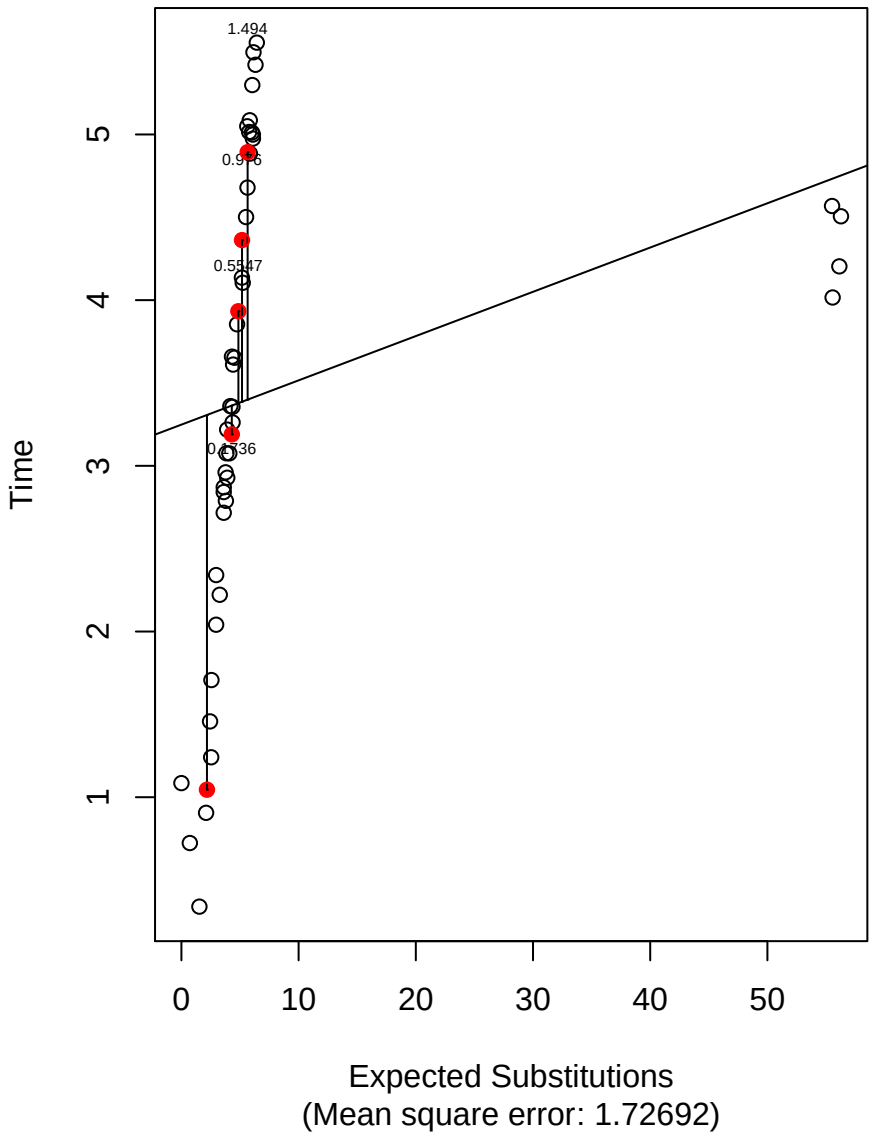

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0537101)
0
1
2
3
4
5
6
0.1819
0.3121


Coalescent: Simulated−no.1 (Remove 5)
u5 t1 1.7046407807945
u29 t32 0.330751828583403
u10 t35 0.476961841159171
u17 t11 0.423800840754862
u12 t29 1.91251556109622
u9 t27 1.67045352220153
u30 t28 1.52187234216229
u38 t13 3.6937971165454
u3 t4 3.83893023837582
u37 t49 2.98930731752706
u7 t42 3.28483893105506
???
u19 t7 4.24764531610726
u48 t3 2.02259024305445
u43 t8 2.63089193959057
u46 t21 4.4588769017346
u34 t17 3.80280044308864
???
u41 t36 5.96229955702708
u36 t30 6.09768561495792
u45 t15 5.30729182722069
u32 t10 5.6574162933162
u8 t6 4.45426945409968
u47 t31 4.39757811036233
u18 t44 5.09224863447359
u20 t34 4.40155527982498
u28 t16 4.65427895394365
u15 t5 6.04120297113182
u13 t33 5.21685346341632
u42 t12 5.63534257208792
u31 t46 5.80076639051045
u50 t20 5.07309061589087
???
u21 t50 6.06843226637523
u40 t19 5.57038835544076
???
???
u25 t14 5.95584275607107
u26 t24 3.6358503673327
u11 t18 3.88431754856695
u4 t26 3.64477166622802
u14 t9 3.3269879173226
u27 t2 3.11480255339886
u6 t48 4.04120912378035
u24 t23 3.5999084860077
u2 t39 2.77462507398826
u22 t22 3.88950042983368
u44 t41 2.60927049762721
u16 t40 1.84240192454229
u39 t37 0.0444685213352162

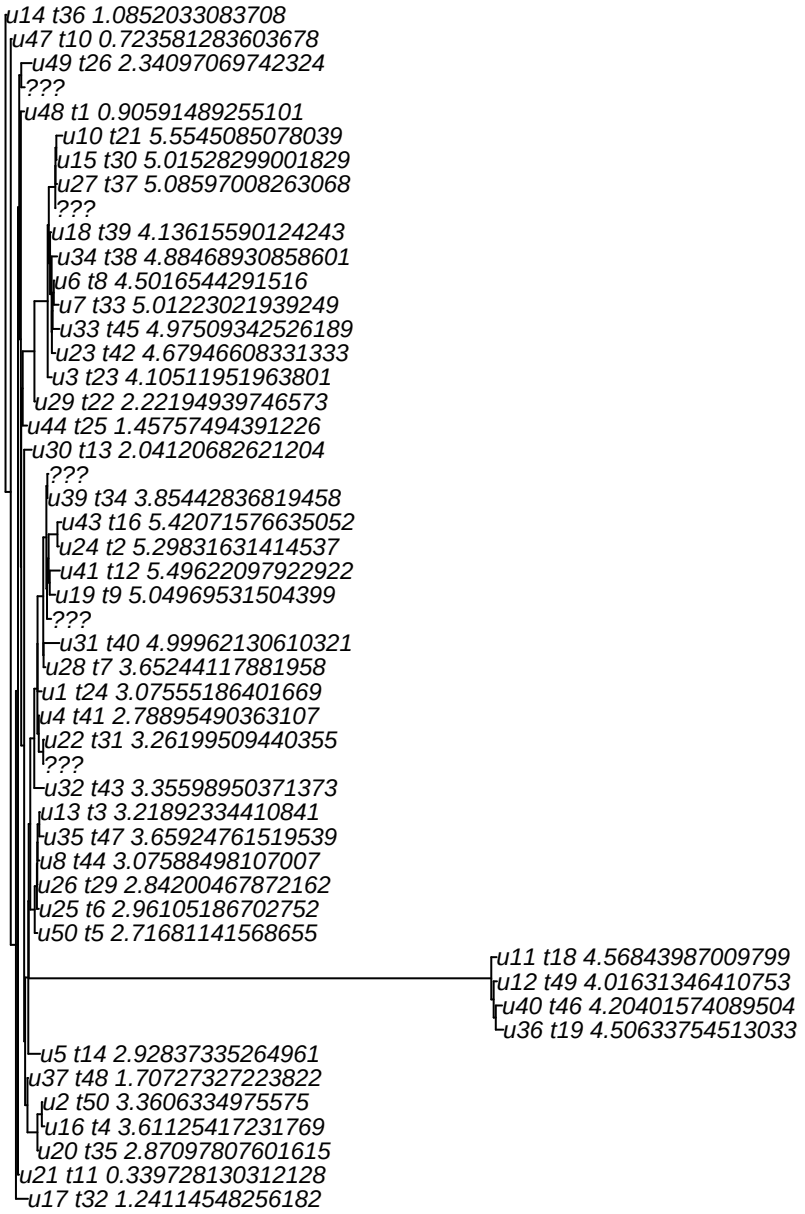

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0292645)
0
1
2
3
4
5
6
7
0.3386

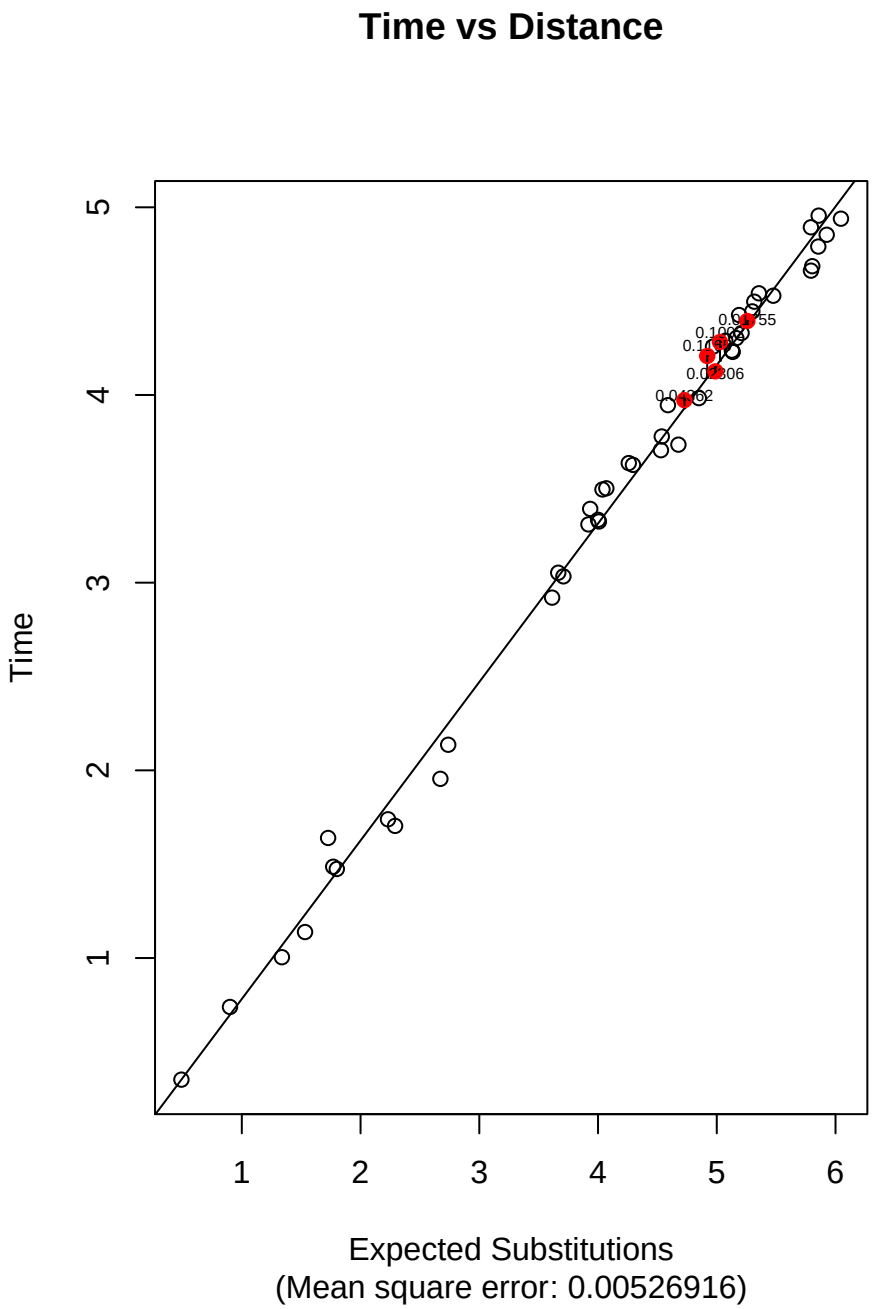

Coalescent: Simulated−no.2 (Remove 5)
u7 t37 0.0444685213352162
u19 t35 0.476961841159171
u17 t29 1.91251556109622
u9 t11 0.423800840754862
u21 t1 1.7046407807945
???
u31 t27 1.67045352220153
u25 t28 1.52187234216229
u46 t40 1.84240192454229
u10 t7 4.24764531610726
u20 t49 2.98930731752706
u5 t13 3.6937971165454
u26 t4 3.83893023837582
u30 t42 3.28483893105506
u23 t25 3.09266818367363
u1 t3 2.02259024305445
u45 t48 4.04120912378035
???
u11 t23 3.5999084860077
u13 t39 2.77462507398826
u36 t8 2.63089193959057
u2 t47 5.14455971691915
???
???
u3 t50 6.06843226637523
u24 t19 5.57038835544076
u22 t24 3.6358503673327
???
u43 t26 3.64477166622802
u29 t9 3.3269879173226
u49 t38 3.55844729999788
u15 t34 4.40155527982498
u18 t12 5.63534257208792
u34 t46 5.80076639051045
u37 t5 6.04120297113182
u48 t33 5.21685346341632
u4 t20 5.07309061589087
u38 t16 4.65427895394365
u33 t44 5.09224863447359
u47 t21 4.4588769017346
u42 t17 3.80280044308864
u16 t36 5.96229955702708
u35 t30 6.09768561495792
u6 t15 5.30729182722069
u32 t10 5.6574162933162
u28 t6 4.45426945409968
u14 t31 4.39757811036233
u44 t45 4.55835606391473
u39 t22 3.88950042983368
u41 t41 2.60927049762721

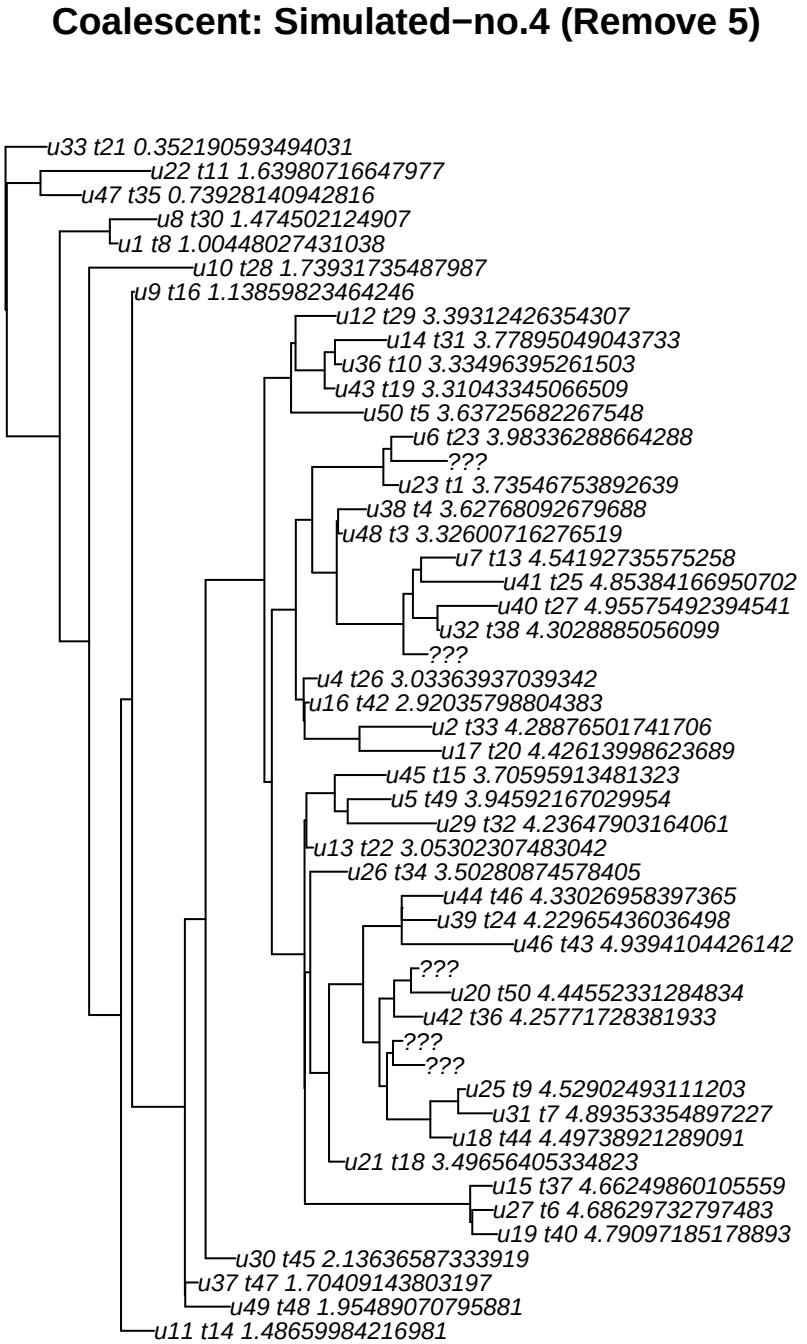
Time vs Distance

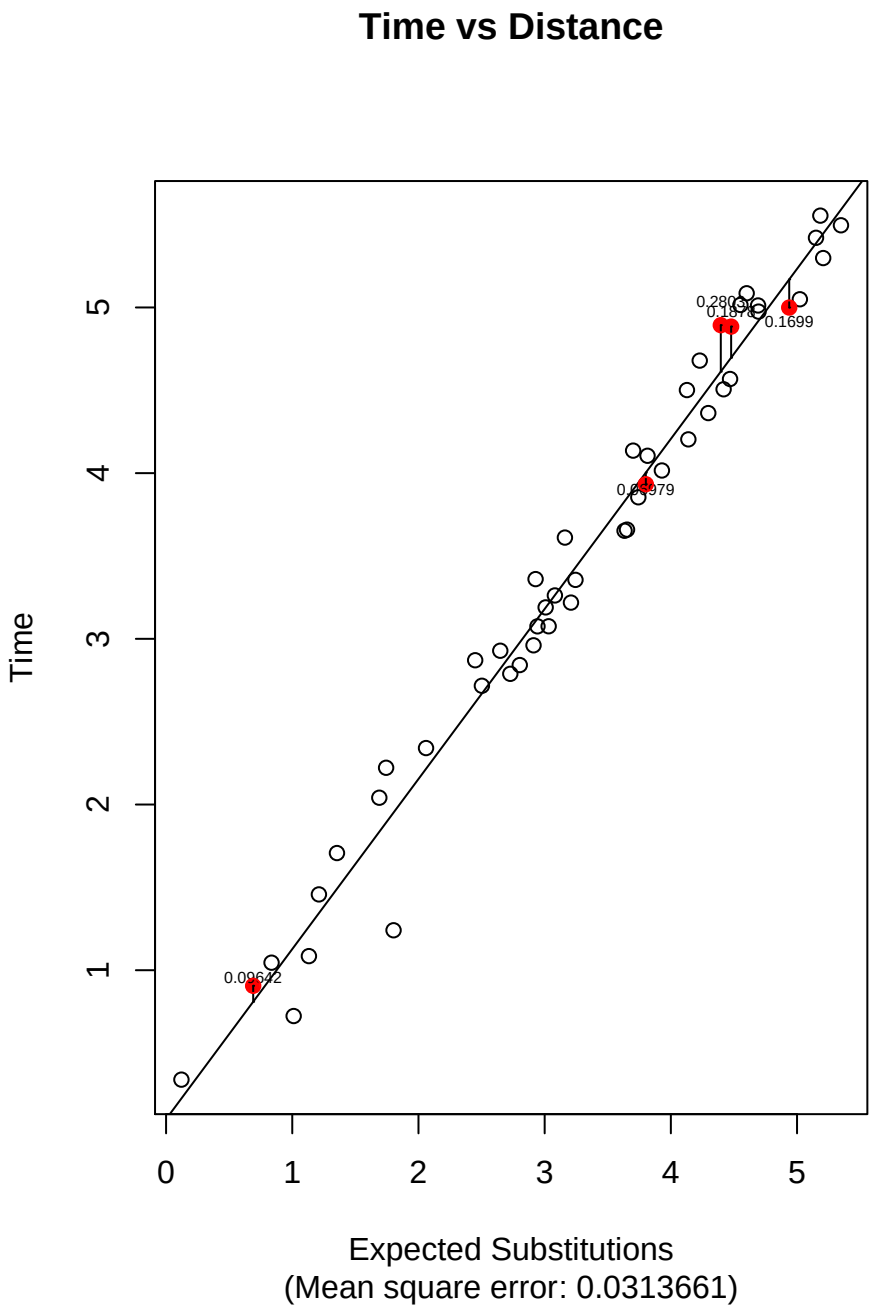


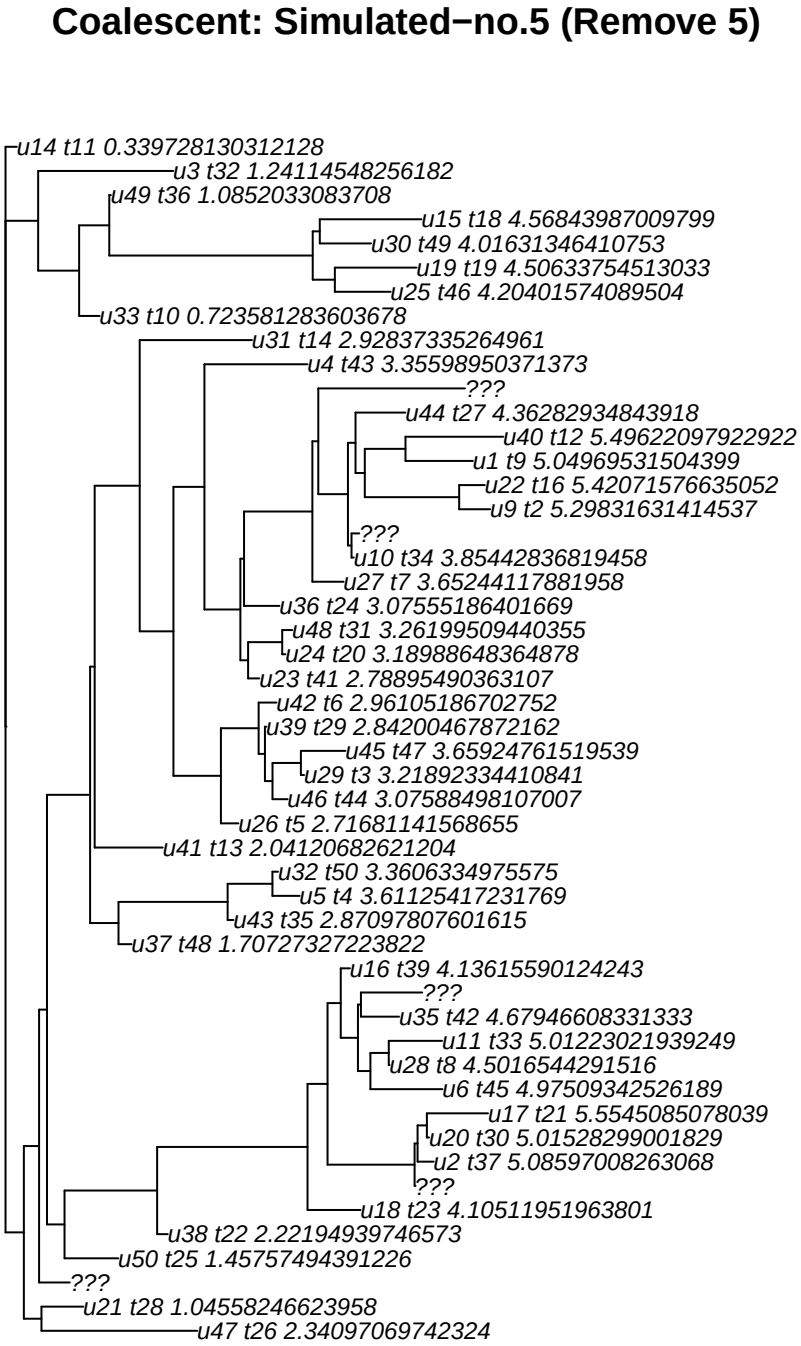
Coalescent: Simulated−no.3 (Remove 5)

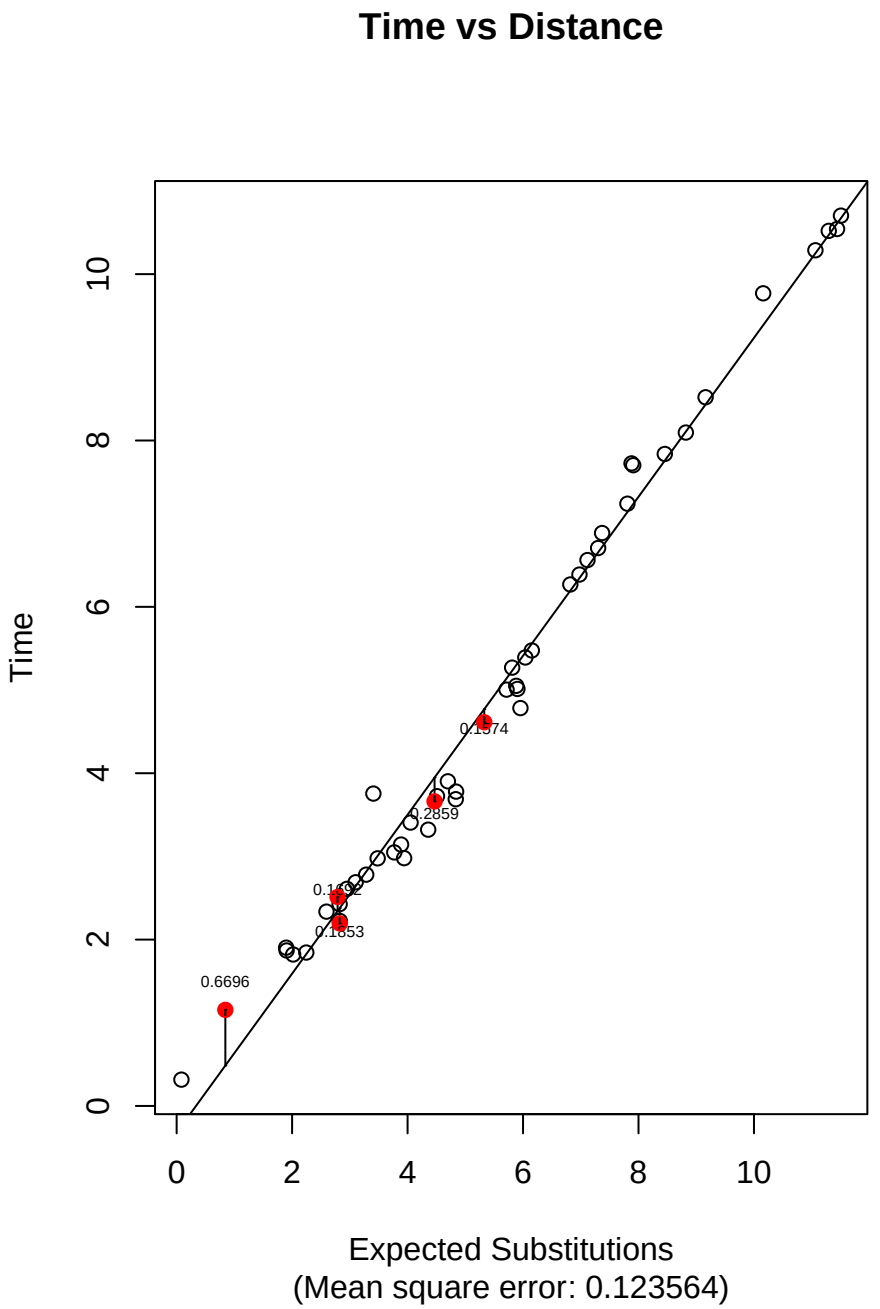


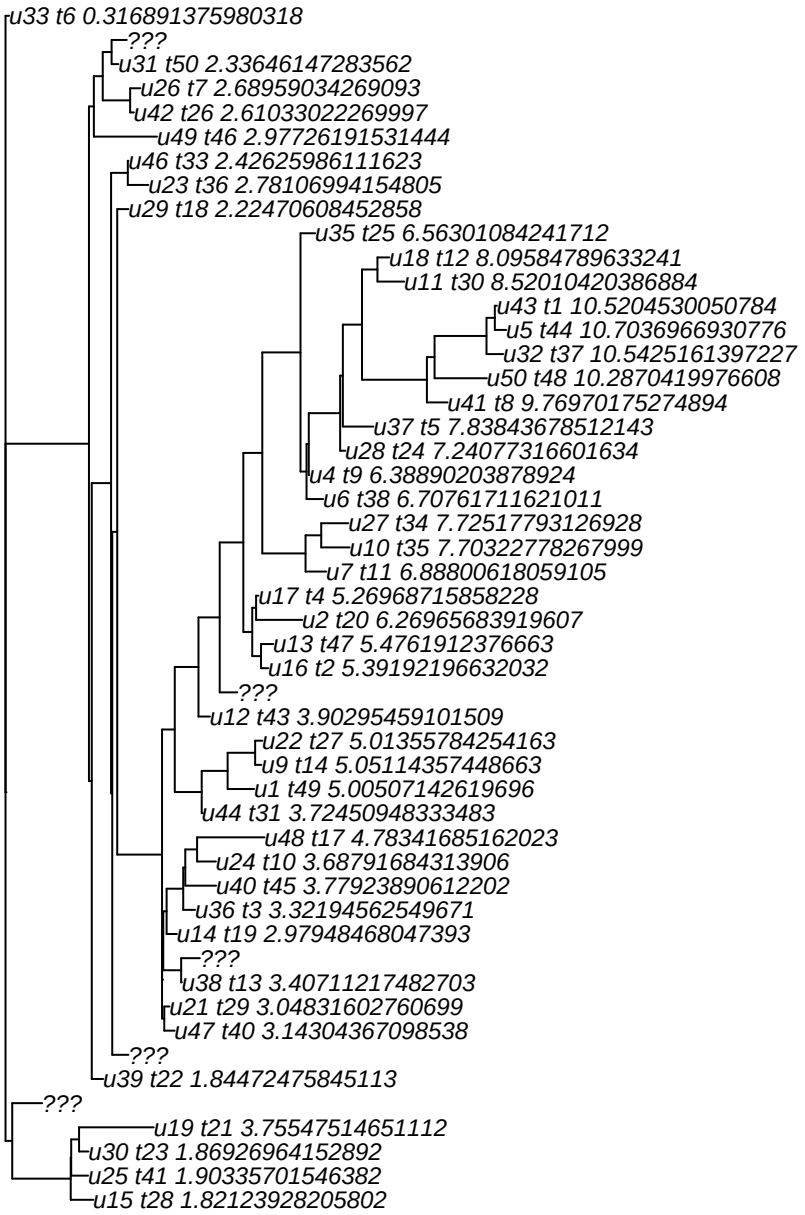

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00526916)
1
2
3
4
5
6

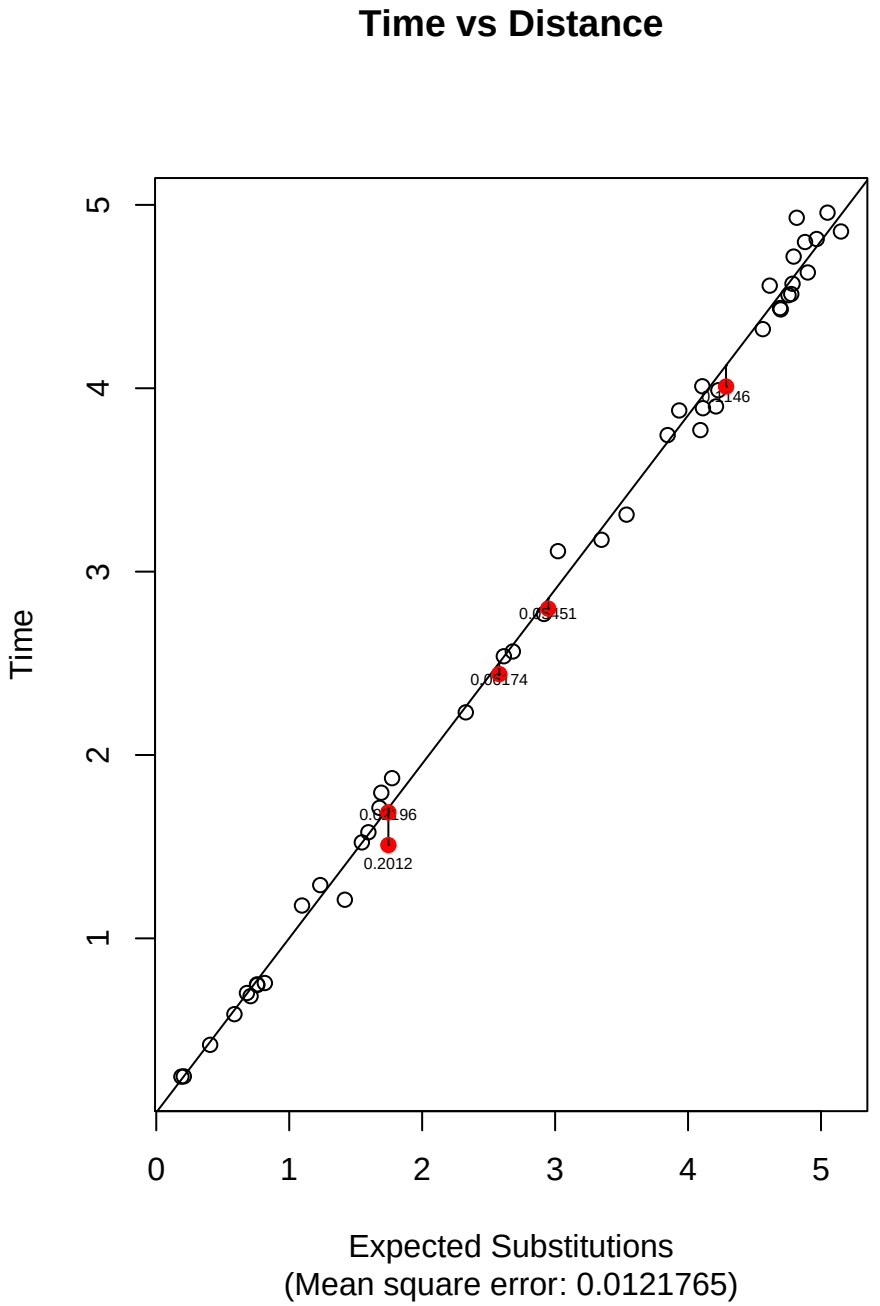

Coalescent: Simulated−no.4 (Remove 5)
u33 t21 0.352190593494031
u22 t11 1.63980716647977
u47 t35 0.73928140942816
u8 t30 1.474502124907
u1 t8 1.00448027431038
u10 t28 1.73931735487987
u9 t16 1.13859823464246
u12 t29 3.39312426354307
u14 t31 3.77895049043733
u36 t10 3.33496395261503
u43 t19 3.31043345066509
u50 t5 3.63725682267548
u6 t23 3.98336288664288
???
u23 t1 3.73546753892639
u38 t4 3.62768092679688
u48 t3 3.32600716276519
u7 t13 4.54192735575258
u41 t25 4.85384166950702
u40 t27 4.95575492394541
u32 t38 4.3028885056099
???
u4 t26 3.03363937039342
u16 t42 2.92035798804383
u2 t33 4.28876501741706
u17 t20 4.42613998623689
u45 t15 3.70595913481323
u5 t49 3.94592167029954
u29 t32 4.23647903164061
u13 t22 3.05302307483042
u26 t34 3.50280874578405
u44 t46 4.33026958397365
u39 t24 4.22965436036498
u46 t43 4.9394104426142
???
u20 t50 4.44552331284834
u42 t36 4.25771728381933
???
???
u25 t9 4.52902493111203
u31 t7 4.89353354897227
u18 t44 4.49738921289091
u21 t18 3.49656405334823
u15 t37 4.66249860105559
u27 t6 4.68629732797483
u19 t40 4.79097185178893
u30 t45 2.13636587333919
u37 t47 1.70409143803197
u49 t48 1.95489070795881
u11 t14 1.48659984216981

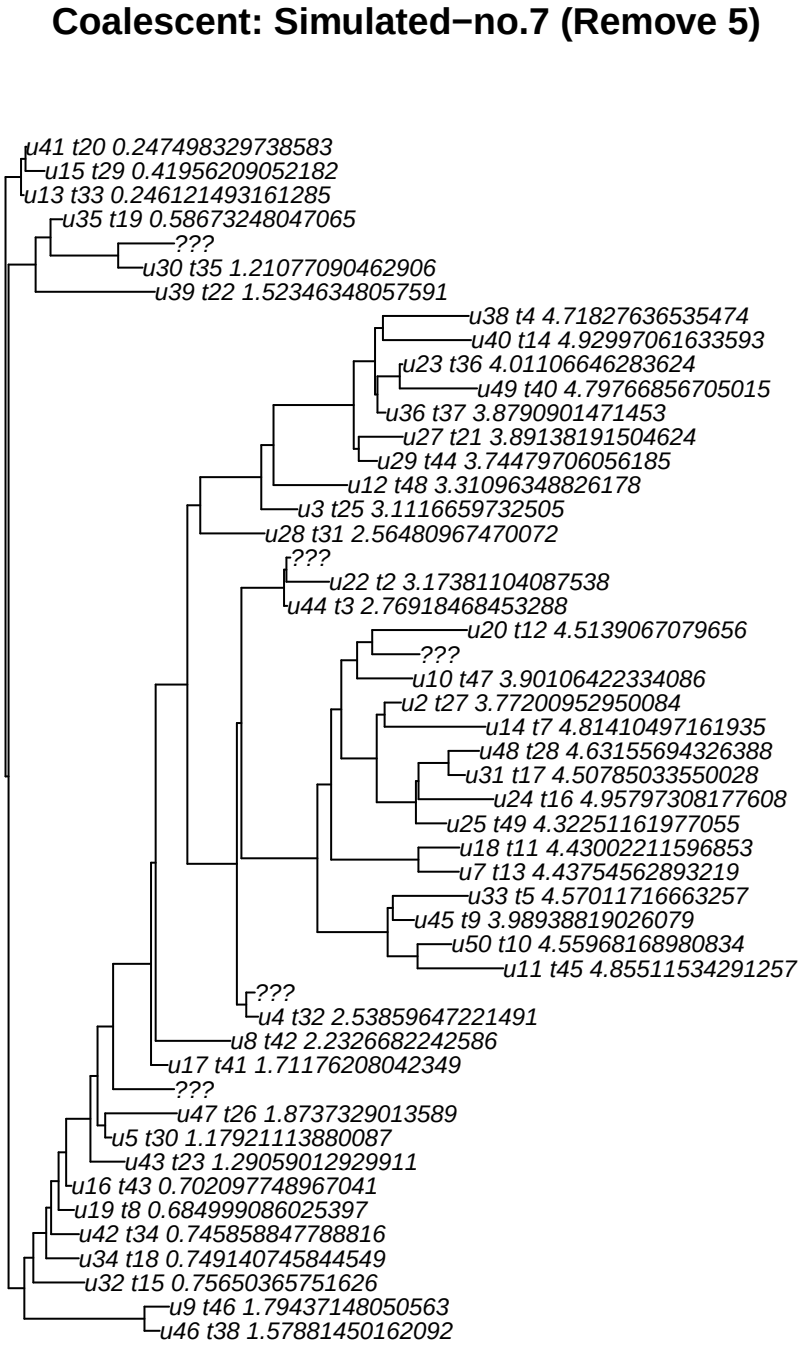

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0313661)
0.1699
0.006642

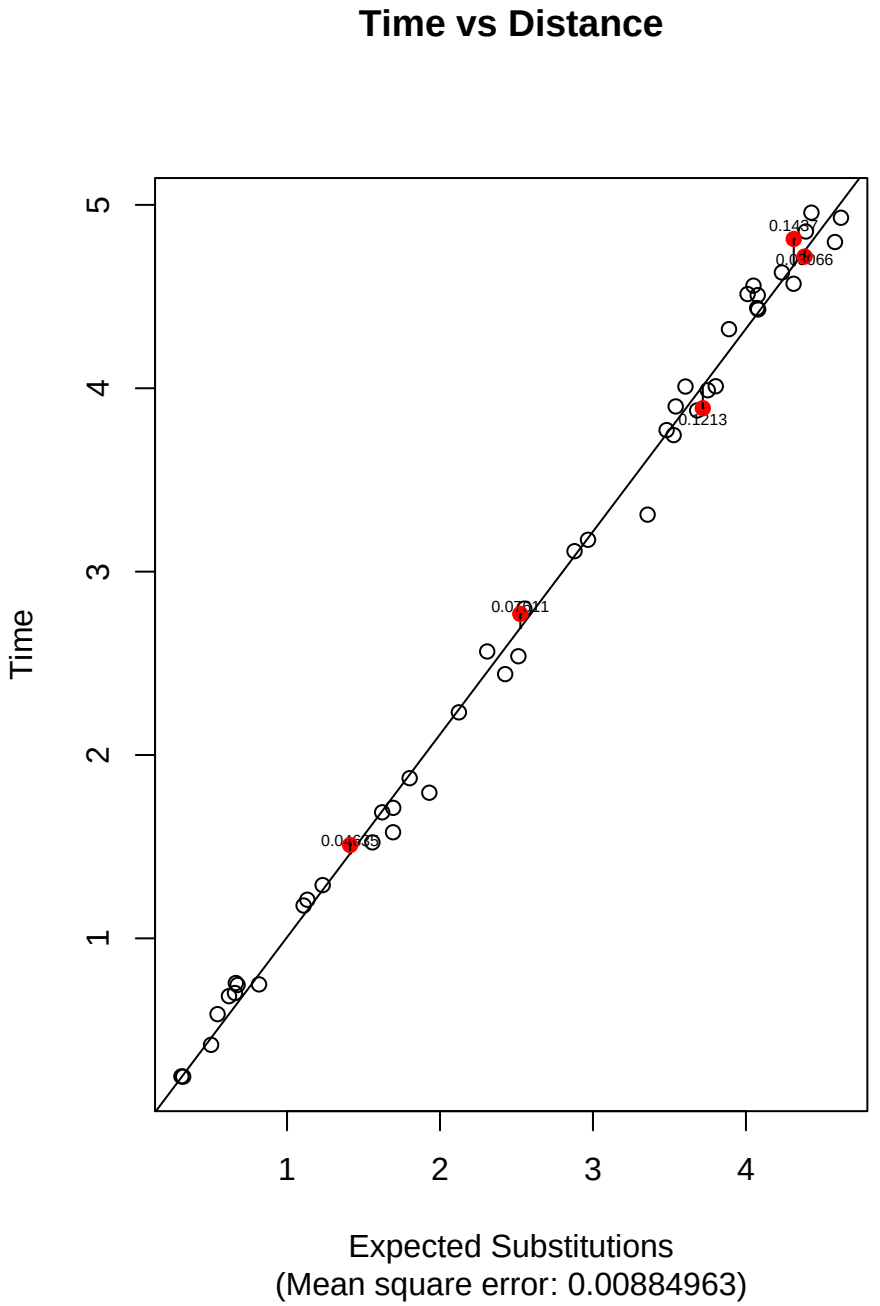

Coalescent: Simulated−no.5 (Remove 5)
u14 t11 0.339728130312128
u3 t32 1.24114548256182
u49 t36 1.0852033083708
u15 t18 4.56843987009799
u30 t49 4.01631346410753
u19 t19 4.50633754513033
u25 t46 4.20401574089504
u33 t10 0.723581283603678
u31 t14 2.92837335264961
u4 t43 3.35598950371373
???
u44 t27 4.36282934843918
u40 t12 5.49622097922922
u1 t9 5.04969531504399
u22 t16 5.42071576635052
u9 t2 5.29831631414537
???
u10 t34 3.85442836819458
u27 t7 3.65244117881958
u36 t24 3.07555186401669
u48 t31 3.26199509440355
u24 t20 3.18988648364878
u23 t41 2.78895490363107
u42 t6 2.96105186702752
u39 t29 2.84200467872162
u45 t47 3.65924761519539
u29 t3 3.21892334410841
u46 t44 3.07588498107007
u26 t5 2.71681141568655
u41 t13 2.04120682621204
u32 t50 3.3606334975575
u5 t4 3.61125417231769
u43 t35 2.87097807601615
u37 t48 1.70727327223822
u16 t39 4.13615590124243
???
u35 t42 4.67946608331333
u11 t33 5.01223021939249
u28 t8 4.5016544291516
u6 t45 4.97509342526189
u17 t21 5.5545085078039
u20 t30 5.01528299001829
u2 t37 5.08597008263068
???
u18 t23 4.10511951963801
u38 t22 2.22194939746573
u50 t25 1.45757494391226
???
u21 t28 1.04558246623958
u47 t26 2.34097069742324

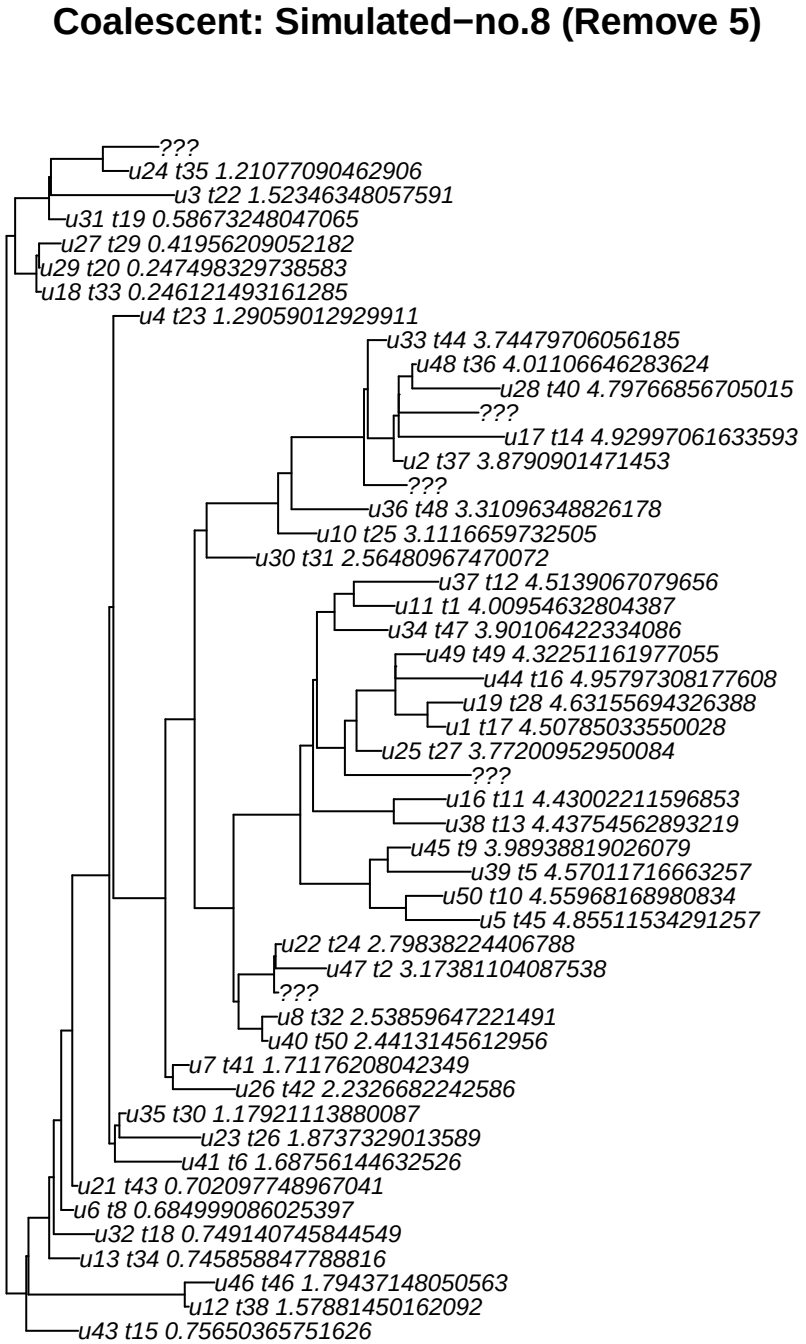

Time vs Distance
Time
0
2
4
6
8
10
0.6696
0.1574
0.2859
0.1653
Expected Substitutions
(Mean square error: 0.123564)

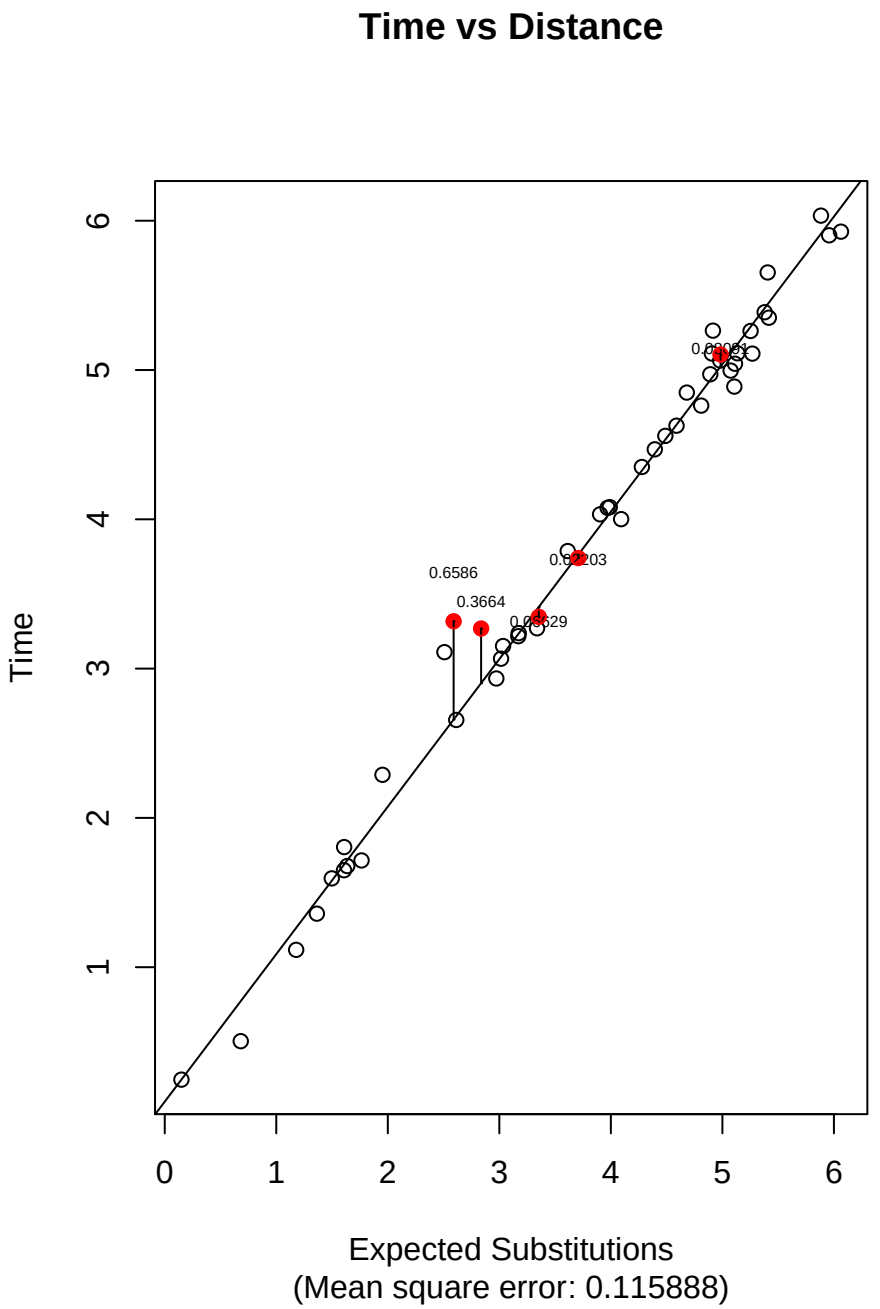

Coalescent: Simulated−no.6 (Remove 5)
u33 t6 0.316891375980318
???
u31 t50 2.33646147283562
u26 t7 2.68959034269093
u42 t26 2.61033022269997
u49 t46 2.97726191531444
u46 t33 2.42625986111623
u23 t36 2.78106994154805
u29 t18 2.22470608452858
u35 t25 6.56301084241712
u18 t12 8.09584789633241
u11 t30 8.52010420386884
u43 t1 10.5204530050784
u5 t44 10.7036966930776
u32 t37 10.5425161397227
u50 t48 10.2870419976608
u41 t8 9.76970175274894
u37 t5 7.83843678512143
u28 t24 7.24077316601634
u4 t9 6.38890203878924
u6 t38 6.70761711621011
u27 t34 7.72517793126928
u10 t35 7.70322778267999
u7 t11 6.88800618059105
u17 t4 5.26968715858228
u2 t20 6.26965683919607
u13 t47 5.4761912376663
u16 t2 5.39192196632032
???
u12 t43 3.90295459101509
u22 t27 5.01355784254163
u9 t14 5.05114357448663
u1 t49 5.00507142619696
u44 t31 3.72450948333483
u48 t17 4.78341685162023
u24 t10 3.68791684313906
u40 t45 3.77923890612202
u36 t3 3.32194562549671
u14 t19 2.97948468047393
???
u38 t13 3.40711217482703
u21 t29 3.04831602760699
u47 t40 3.14304367098538
???
u39 t22 1.84472475845113
???
u19 t21 3.75547514651112
u30 t23 1.86926964152892
u25 t41 1.90335701546382
u15 t28 1.82123928205802

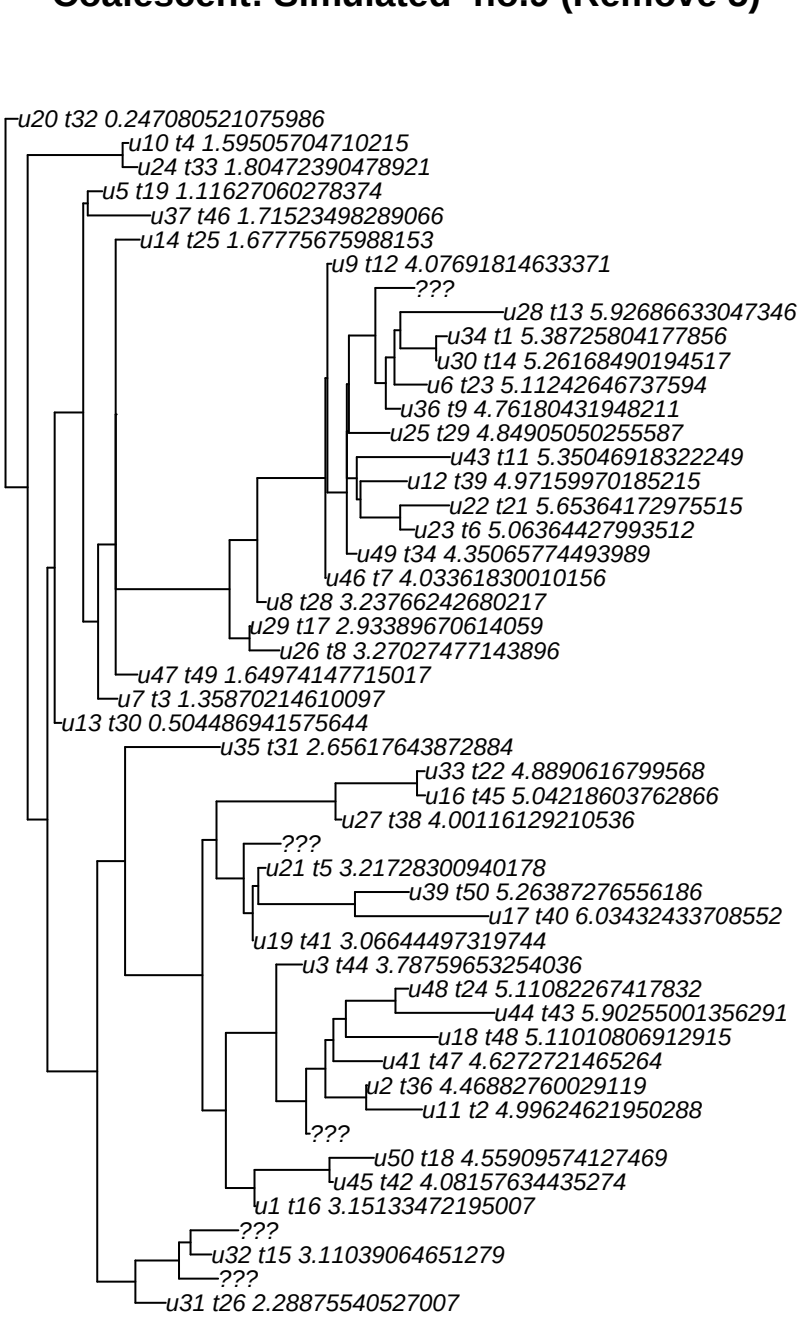

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0121765)
0
1
2
3
4
5
0.2012

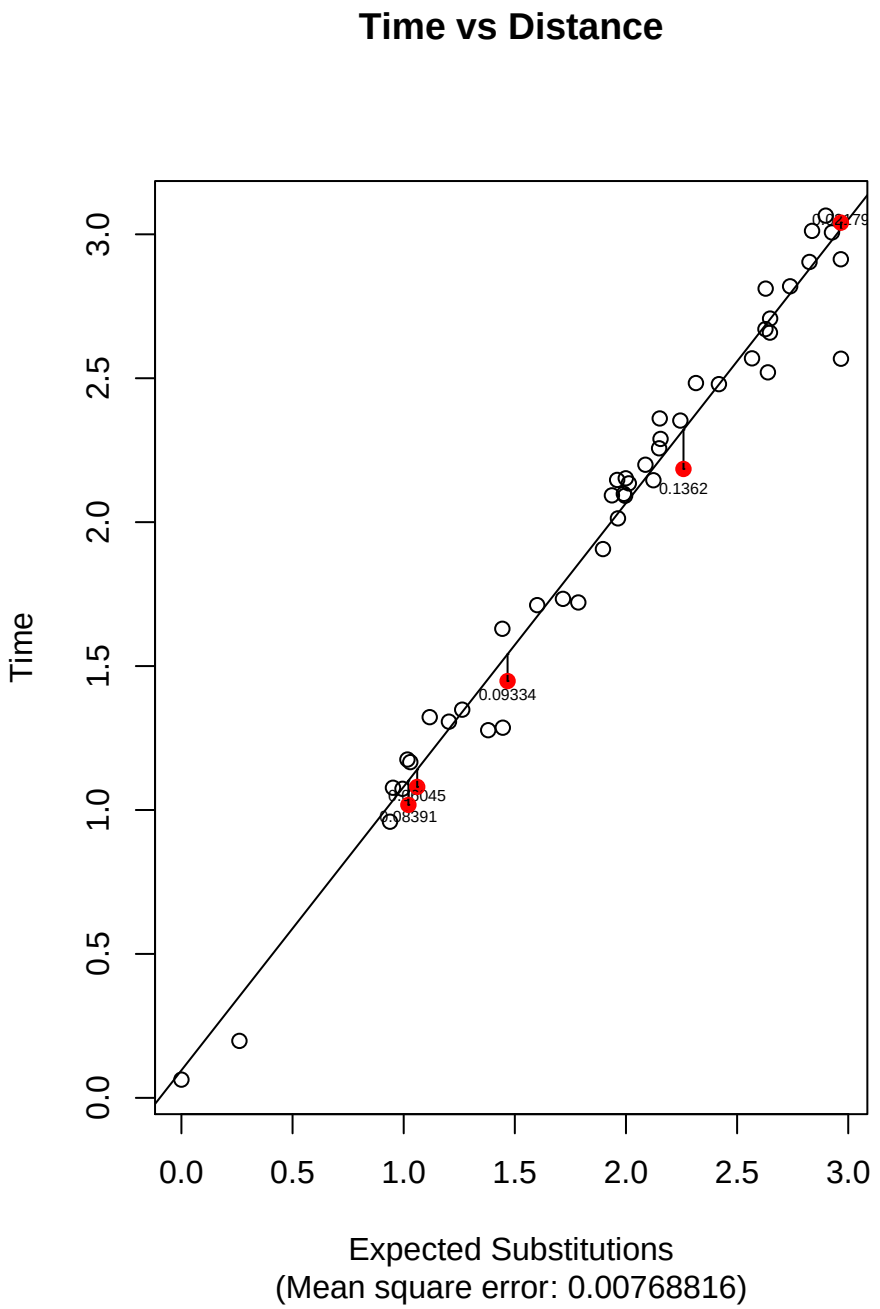

Coalescent: Simulated−no.7 (Remove 5)
u41 t20 0.247498329738583
u15 t29 0.41956209052182
u13 t33 0.246121493161285
u35 t19 0.58673248047065
???
u30 t35 1.21077090462906
u39 t22 1.52346348057591
u38 t4 4.71827636535474
u40 t14 4.92997061633593
u23 t36 4.01106646283624
u49 t40 4.79766856705015
u36 t37 3.8790901471453
u27 t21 3.89138191504624
u29 t44 3.74479706056185
u12 t48 3.31096348826178
u3 t25 3.1116659732505
u28 t31 2.56480967470072
???
u22 t2 3.17381104087538
u44 t3 2.76918468453288
u20 t12 4.5139067079656
???
u10 t47 3.90106422334086
u2 t27 3.77200952950084
u14 t7 4.81410497161935
u48 t28 4.63155694326388
u31 t17 4.50785033550028
u24 t16 4.95797308177608
u25 t49 4.32251161977055
u18 t11 4.43002211596853
u7 t13 4.43754562893219
u33 t5 4.57011716663257
u45 t9 3.98938819026079
u50 t10 4.55968168980834
u11 t45 4.85511534291257
???
u4 t32 2.53859647221491
u8 t42 2.2326682242586
u17 t41 1.71176208042349
???
u47 t26 1.8737329013589
u5 t30 1.17921113880087
u43 t23 1.29059012929911
u16 t43 0.702097748967041
u19 t8 0.684999086025397
u42 t34 0.745858847788816
u34 t18 0.749140745844549
u32 t15 0.75650365751626
u9 t46 1.79437148050563
u46 t38 1.57881450162092

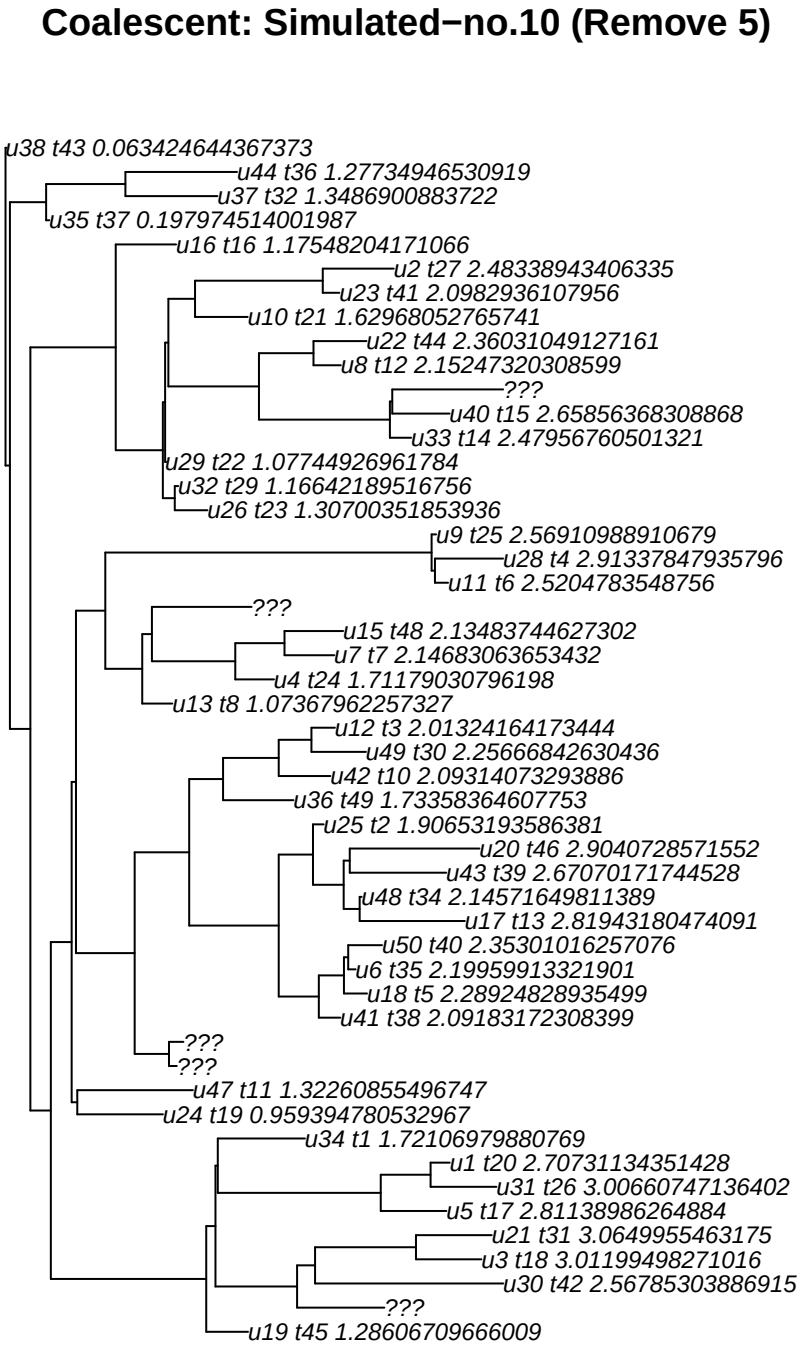

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00884963)
1
2
3
4
5
0.1437
0.1213

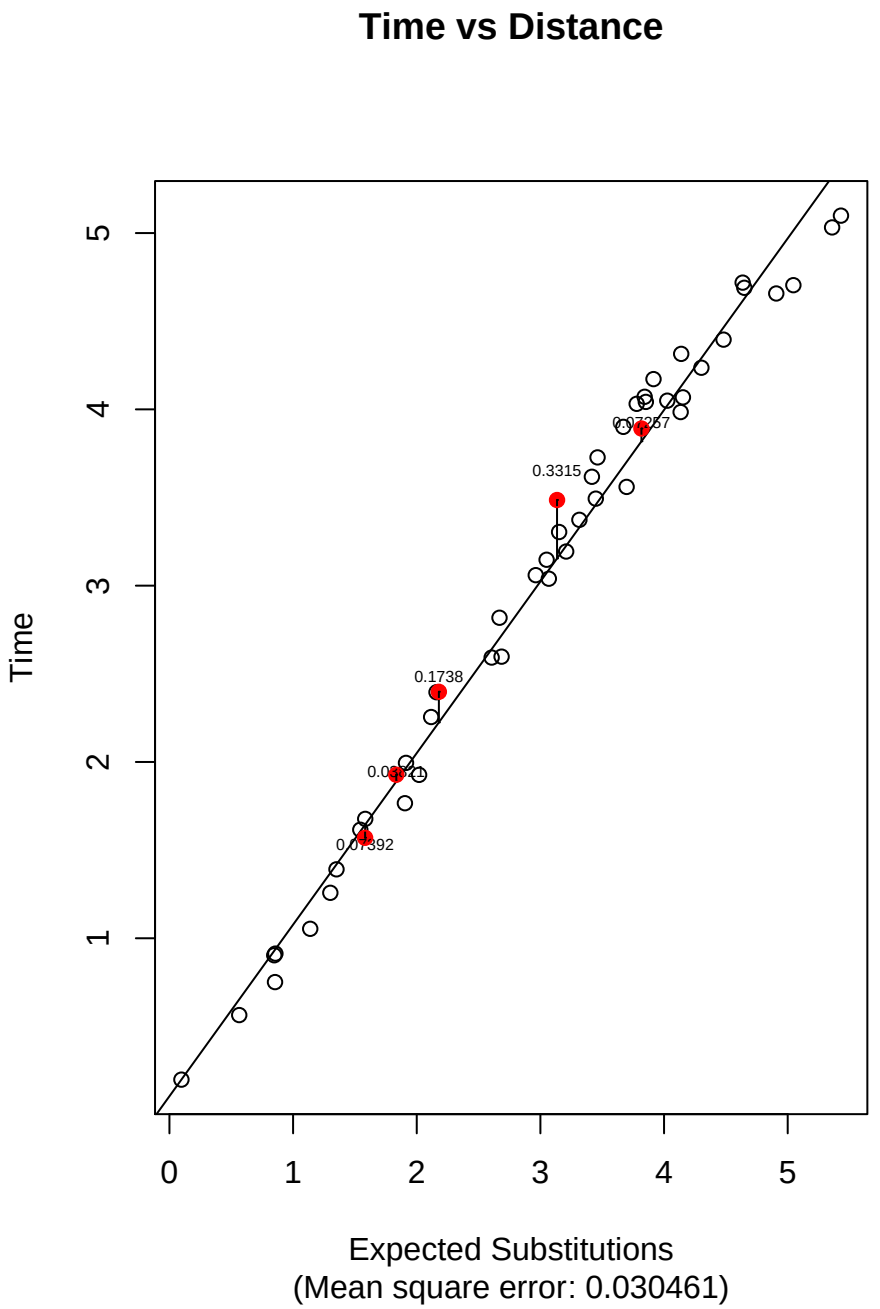

Coalescent: Simulated−no.8 (Remove 5)
???
u24 t35 1.21077090462906
u3 t22 1.52346348057591
u31 t19 0.58673248047065
u27 t29 0.41956209052182
u29 t20 0.247498329738583
u18 t33 0.246121493161285
u4 t23 1.29059012929911
u33 t44 3.74479706056185
u48 t36 4.01106646283624
u28 t40 4.79766856705015
???
u17 t14 4.92997061633593
u2 t37 3.8790901471453
???
u36 t48 3.31096348826178
u10 t25 3.1116659732505
u30 t31 2.56480967470072
u37 t12 4.5139067079656
u11 t1 4.00954632804387
u34 t47 3.90106422334086
u49 t49 4.32251161977055
u44 t16 4.95797308177608
u19 t28 4.63155694326388
u1 t17 4.50785033550028
u25 t27 3.77200952950084
???
u16 t11 4.43002211596853
u38 t13 4.43754562893219
u45 t9 3.98938819026079
u39 t5 4.57011716663257
u50 t10 4.55968168980834
u5 t45 4.85511534291257
u22 t24 2.79838224406788
u47 t2 3.17381104087538
???
u8 t32 2.53859647221491
u40 t50 2.4413145612956
u7 t41 1.71176208042349
u26 t42 2.2326682242586
u35 t30 1.17921113880087
u23 t26 1.8737329013589
u41 t6 1.68756144632526
u21 t43 0.702097748967041
u6 t8 0.684999086025397
u32 t18 0.749140745844549
u13 t34 0.745858847788816
u46 t46 1.79437148050563
u12 t38 1.57881450162092
u43 t15 0.75650365751626

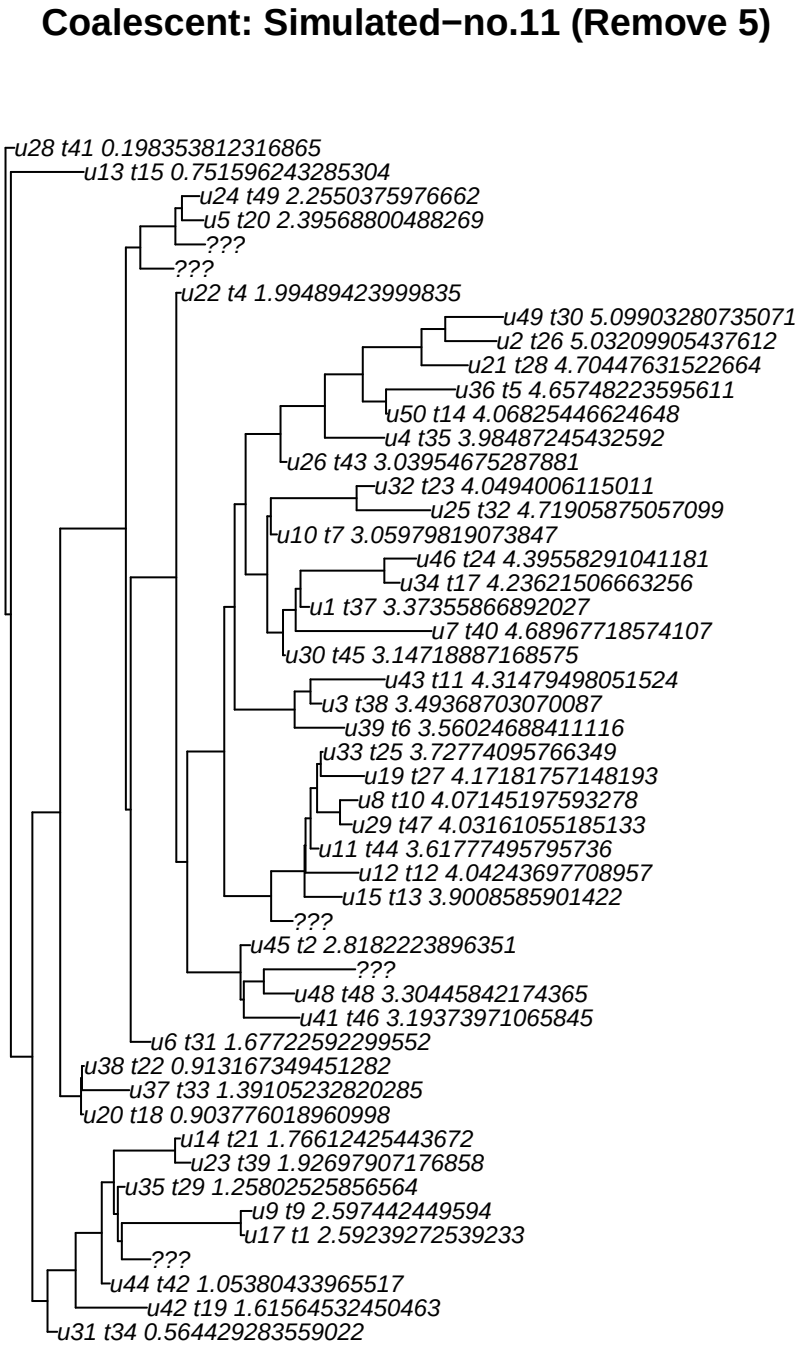

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.115888)
0.6586
0.3664
0 1 2 3 4 5 6

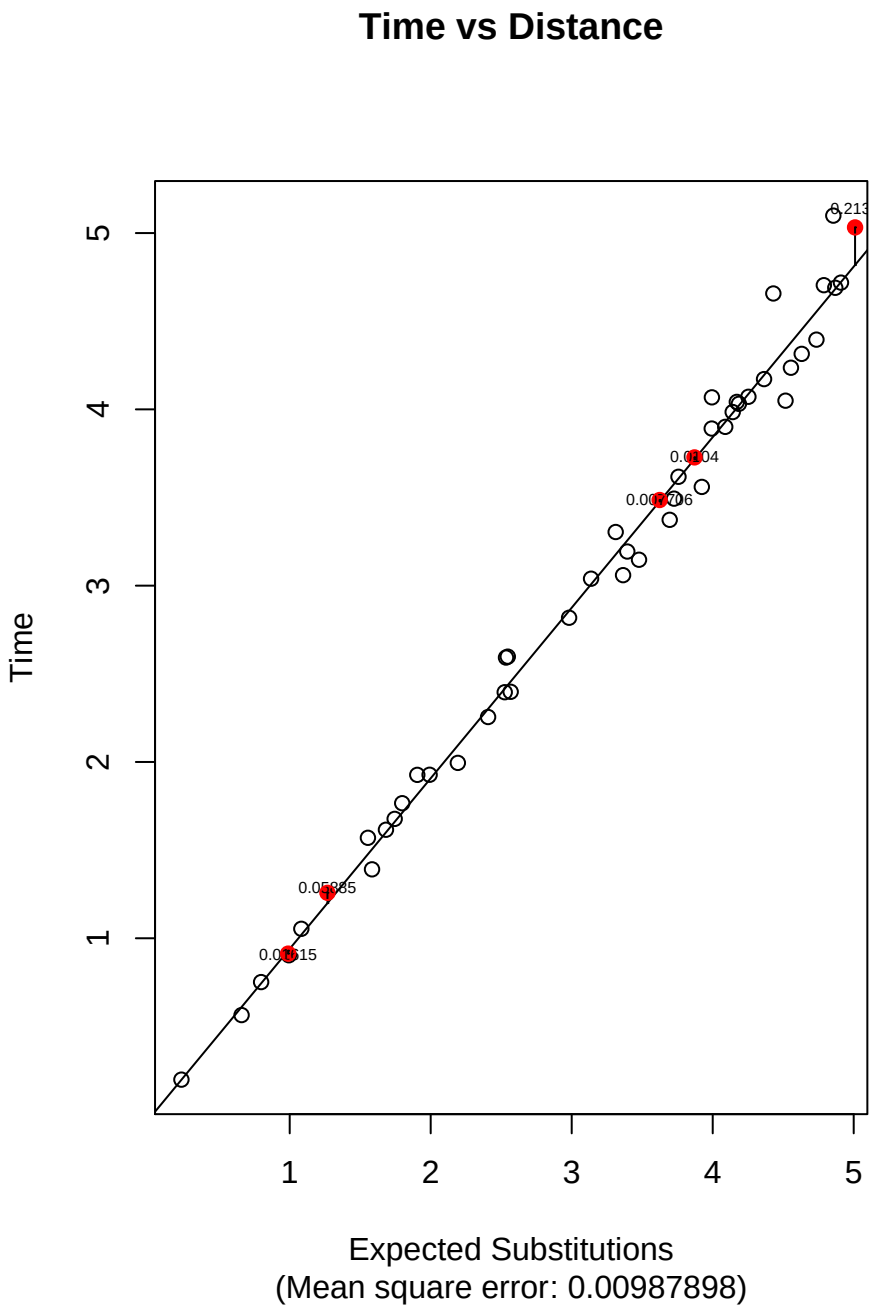

Coalescent: Simulated−no.9 (Remove 5)
u20 t32 0.247080521075986
u10 t4 1.59505704710215
u24 t33 1.80472390478921
u5 t19 1.11627060278374
u37 t46 1.71523498289066
u14 t25 1.67775675988153
u9 t12 4.07691814633371
???
u28 t13 5.92686633047346
u34 t1 5.38725804177856
u30 t14 5.26168490194517
u6 t23 5.11242646737594
u36 t9 4.76180431948211
u25 t29 4.84905050255587
u43 t11 5.35046918322249
u12 t39 4.97159970185215
u22 t21 5.65364172975515
u23 t6 5.06364427993512
u49 t34 4.35065774493989
u46 t7 4.03361830010156
u8 t28 3.23766242680217
u29 t17 2.93389670614059
u26 t8 3.27027477143896
u47 t49 1.64974147715017
u7 t3 1.35870214610097
u13 t30 0.504486941575644
u35 t31 2.65617643872884
u33 t22 4.8890616799568
u16 t45 5.04218603762866
u27 t38 4.00116129210536
???
u21 t5 3.21728300940178
u39 t50 5.26387276556186
u17 t40 6.03432433708552
u19 t41 3.06644497319744
u3 t44 3.78759653254036
u48 t24 5.11082267417832
u44 t43 5.90255001356291
u18 t48 5.11010806912915
u41 t47 4.6272721465264
u2 t36 4.46882760029119
u11 t2 4.99624621950288
???
u50 t18 4.55909574127469
u45 t42 4.08157634435274
u1 t16 3.15133472195007
???
u32 t15 3.11039064651279
???
u31 t26 2.28875540527007

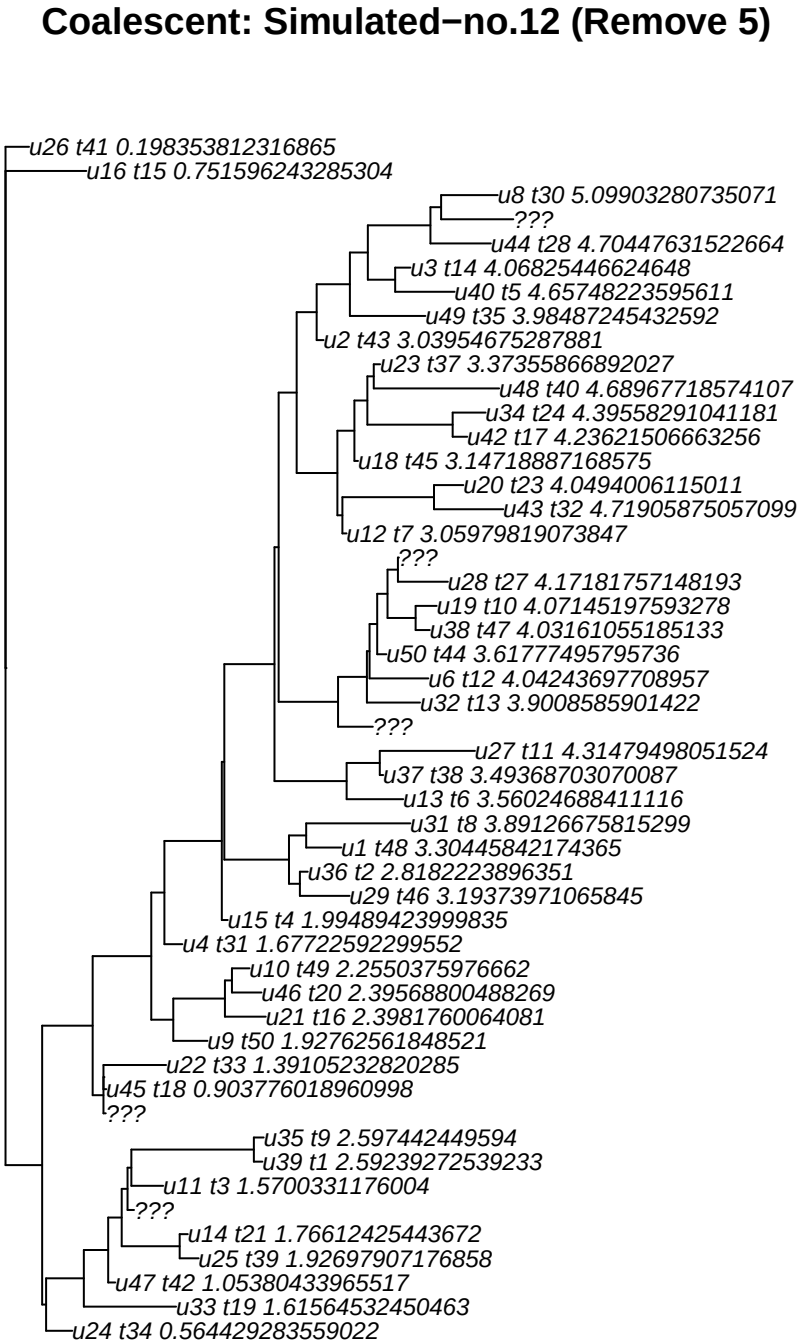

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.1362
0.09334
0.08391
Expected Substitutions
(Mean square error: 0.00768816)

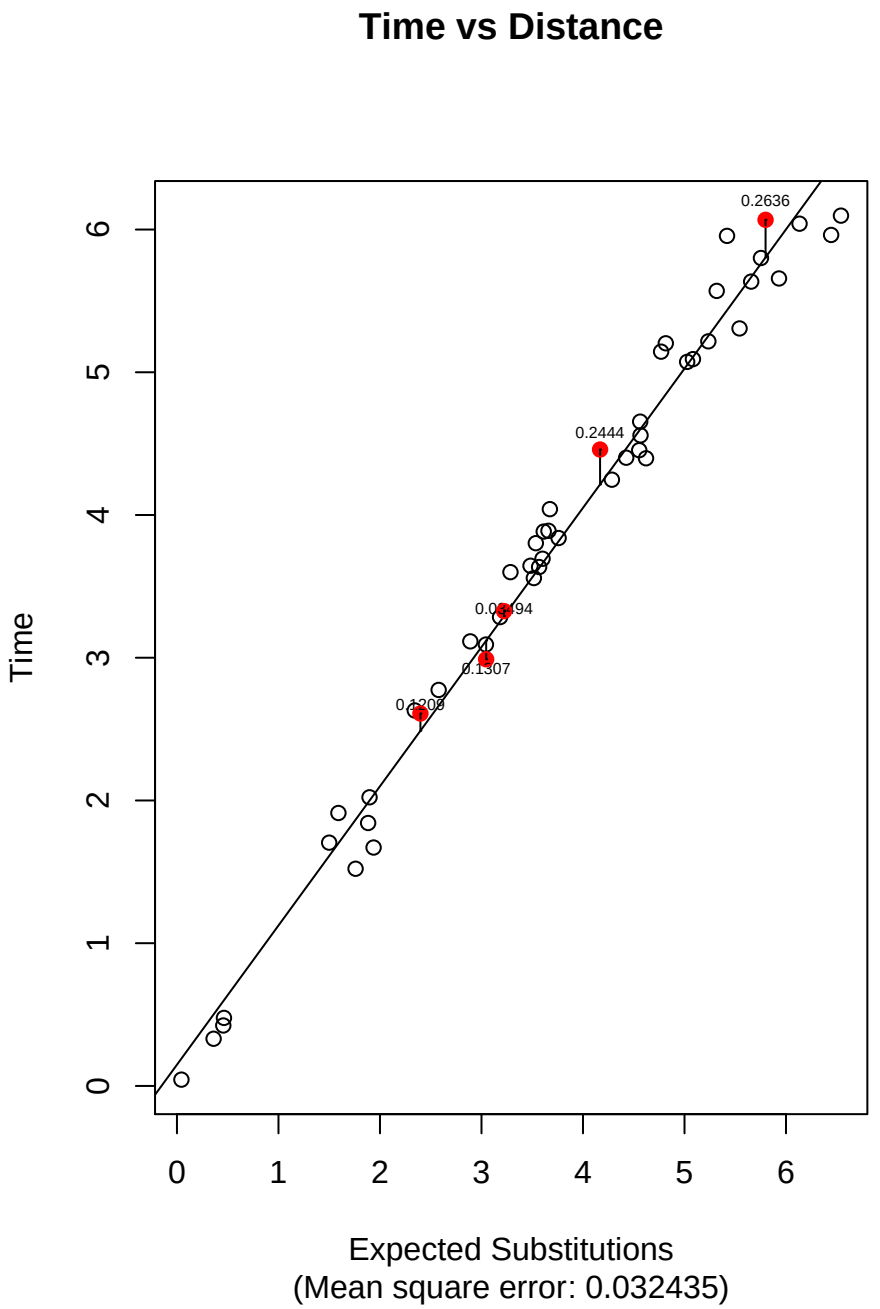

Coalescent: Simulated−no.10 (Remove 5)
u38 t43 0.063424644367373
u44 t36 1.27734946530919
u37 t32 1.3486900883722
u35 t37 0.197974514001987
u16 t16 1.17548204171066
u2 t27 2.48338943406335
u23 t41 2.0982936107956
u10 t21 1.62968052765741
u22 t44 2.36031049127161
u8 t12 2.15247320308599
???
u40 t15 2.65856368308868
u33 t14 2.47956760501321
u29 t22 1.07744926961784
u32 t29 1.16642189516756
u26 t23 1.30700351853936
u9 t25 2.56910988910679
u28 t4 2.91337847935796
u11 t6 2.5204783548756
???
u15 t48 2.13483744627302
u7 t7 2.14683063653432
u4 t24 1.71179030796198
u13 t8 1.07367962257327
u12 t3 2.01324164173444
u49 t30 2.25666842630436
u42 t10 2.09314073293886
u36 t49 1.73358364607753
u25 t2 1.90653193586381
u20 t46 2.9040728571552
u43 t39 2.67070171744528
u48 t34 2.14571649811389
u17 t13 2.81943180474091
u50 t40 2.35301016257076
u6 t35 2.19959913321901
u18 t5 2.28924828935499
u41 t38 2.09183172308399
???
???
u47 t11 1.32260855496747
u24 t19 0.959394780532967
u34 t1 1.72106979880769
u1 t20 2.70731134351428
u31 t26 3.00660747136402
u5 t17 2.81138986264884
u21 t31 3.0649955463175
u3 t18 3.01199498271016
u30 t42 2.56785303886915
???
u19 t45 1.28606709666009

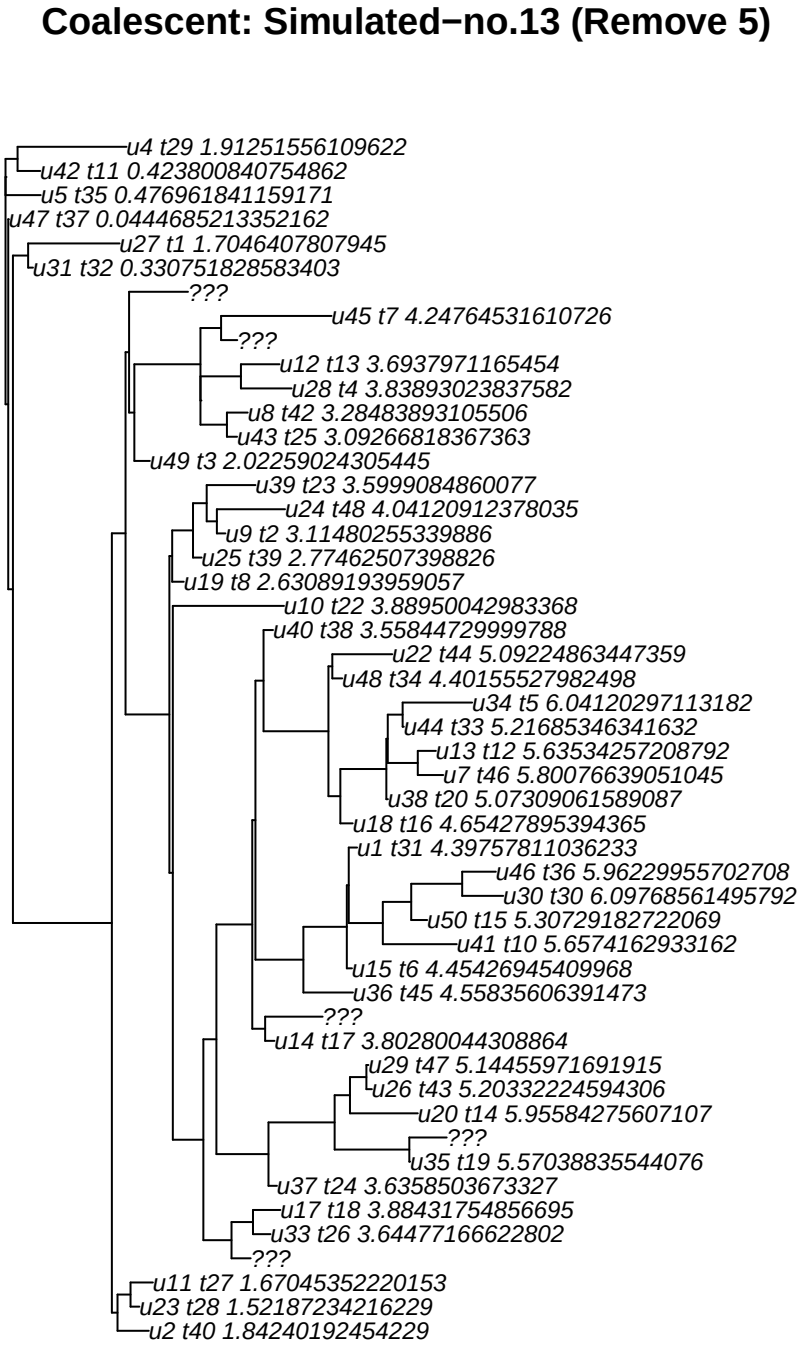

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.030461)
0
1
2
3
4
5
0.3315
0.1738
0.07392

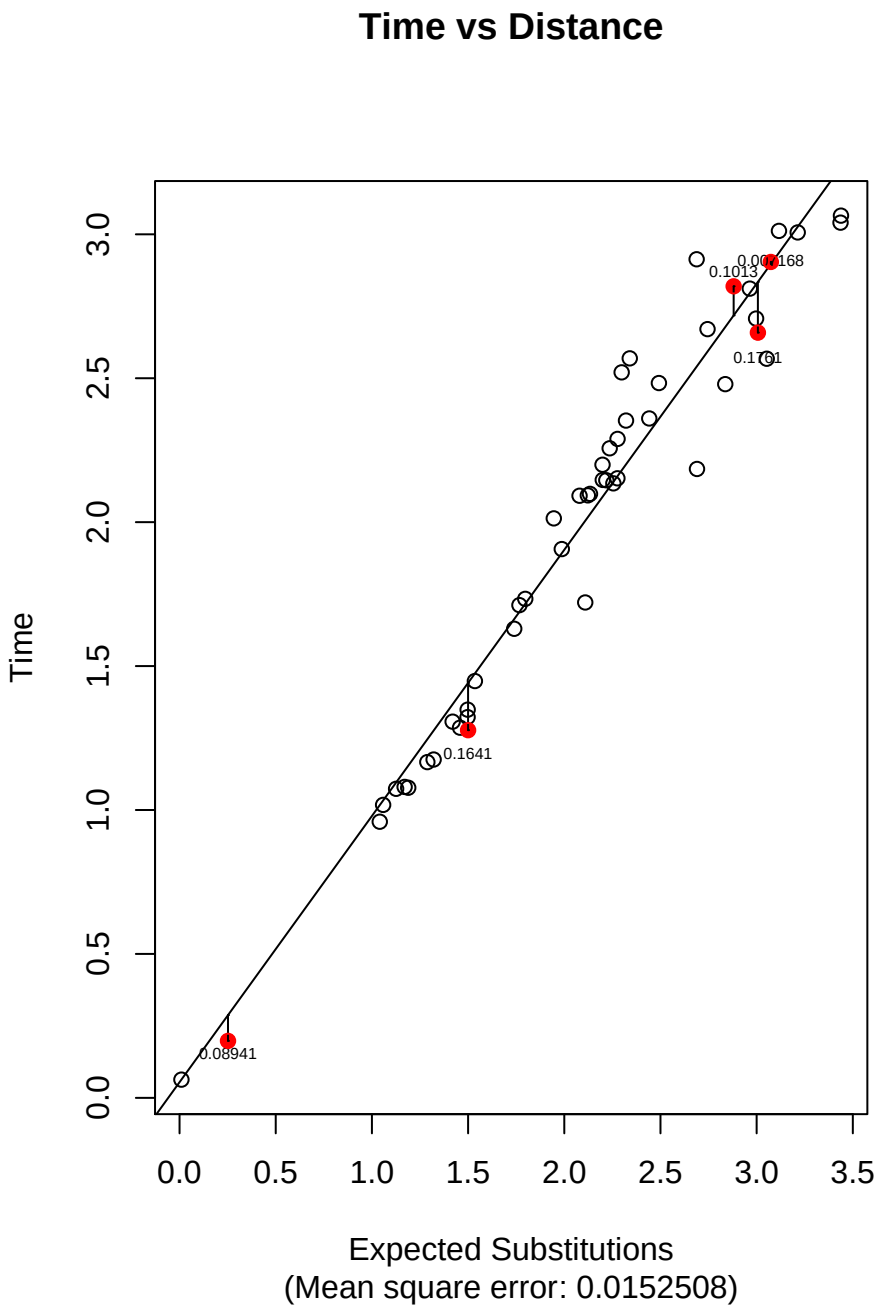

Coalescent: Simulated−no.11 (Remove 5)
u28 t41 0.198353812316865
u13 t15 0.751596243285304
u24 t49 2.2550375976662
u5 t20 2.39568800488269
???
???
u22 t4 1.99489423999835
u49 t30 5.09903280735071
u2 t26 5.03209905437612
u21 t28 4.70447631522664
u36 t5 4.65748223595611
u50 t14 4.06825446624648
u4 t35 3.98487245432592
u26 t43 3.03954675287881
u32 t23 4.0494006115011
u25 t32 4.71905875057099
u10 t7 3.05979819073847
u46 t24 4.39558291041181
u34 t17 4.23621506663256
u1 t37 3.37355866892027
u7 t40 4.68967718574107
u30 t45 3.14718887168575
u43 t11 4.31479498051524
u3 t38 3.49368703070087
u39 t6 3.56024688411116
u33 t25 3.72774095766349
u19 t27 4.17181757148193
u8 t10 4.07145197593278
u29 t47 4.03161055185133
u11 t44 3.61777495795736
u12 t12 4.04243697708957
u15 t13 3.9008585901422
???
u45 t2 2.8182223896351
???
u48 t48 3.30445842174365
u41 t46 3.19373971065845
u6 t31 1.67722592299552
u38 t22 0.913167349451282
u37 t33 1.39105232820285
u20 t18 0.903776018960998
u14 t21 1.76612425443672
u23 t39 1.92697907176858
u35 t29 1.25802525856564
u9 t9 2.597442449594
u17 t1 2.59239272539233
???
u44 t42 1.05380433965517
u42 t19 1.61564532450463
u31 t34 0.564429283559022

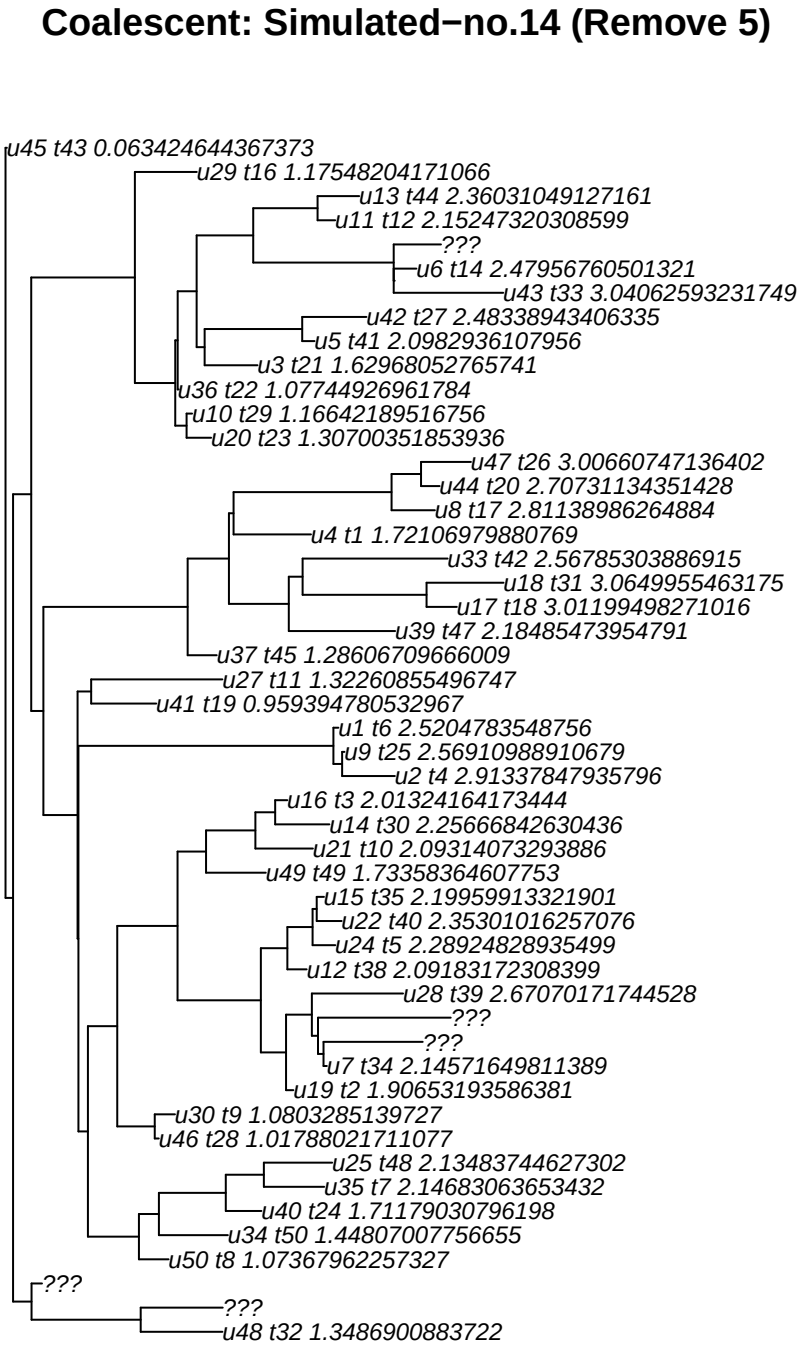

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00987898)
1
2
3
4
5
0.213
0.05685
0.01615

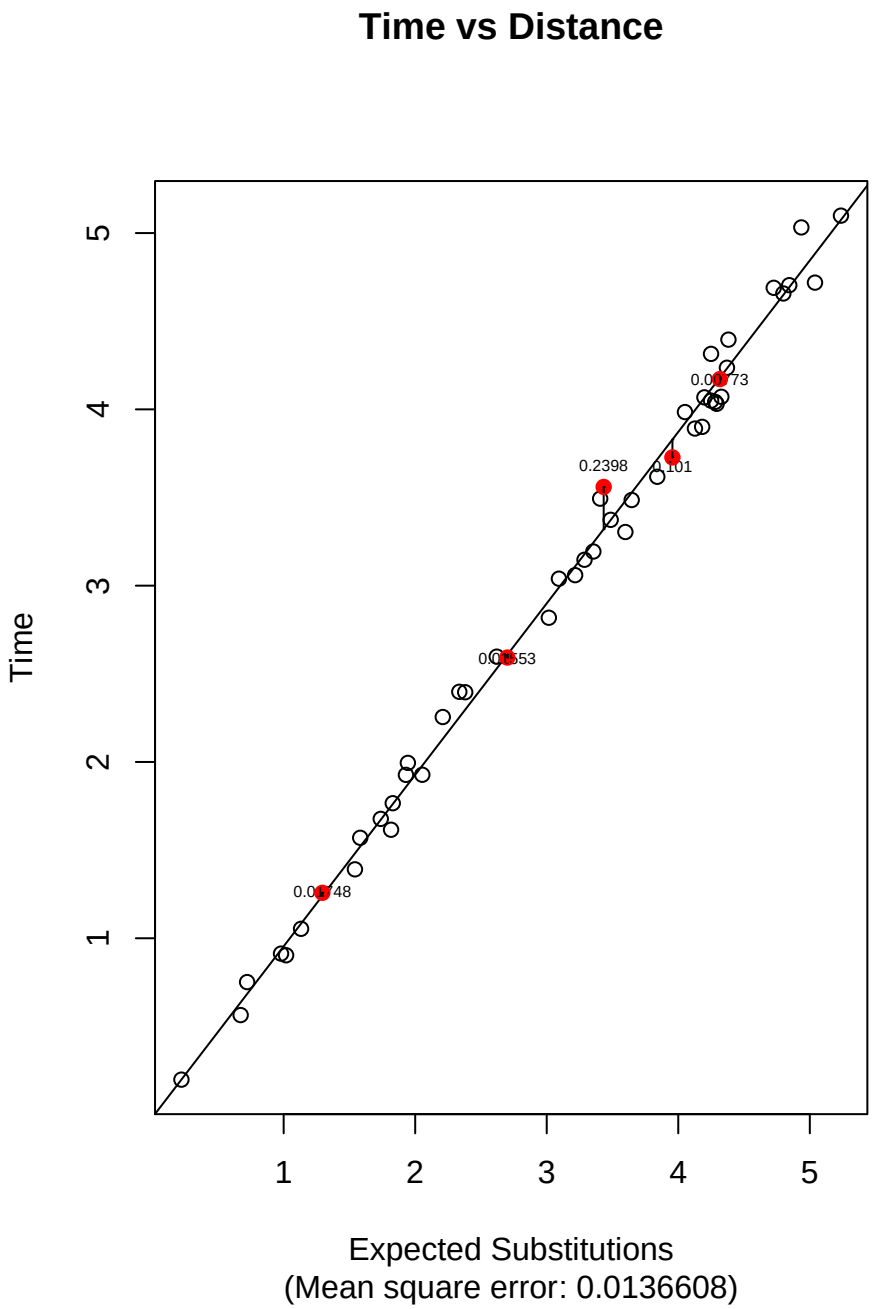

Coalescent: Simulated−no.12 (Remove 5)
u26 t41 0.198353812316865
u16 t15 0.751596243285304
u8 t30 5.09903280735071
???
u44 t28 4.70447631522664
u3 t14 4.06825446624648
u40 t5 4.65748223595611
u49 t35 3.98487245432592
u2 t43 3.03954675287881
u23 t37 3.37355866892027
u48 t40 4.68967718574107
u34 t24 4.39558291041181
u42 t17 4.23621506663256
u18 t45 3.14718887168575
u20 t23 4.0494006115011
u43 t32 4.71905875057099
u12 t7 3.05979819073847
???
u28 t27 4.17181757148193
u19 t10 4.07145197593278
u38 t47 4.03161055185133
u50 t44 3.61777495795736
u6 t12 4.04243697708957
u32 t13 3.9008585901422
???
u27 t11 4.31479498051524
u37 t38 3.49368703070087
u13 t6 3.56024688411116
u31 t8 3.89126675815299
u1 t48 3.30445842174365
u36 t2 2.8182223896351
u29 t46 3.19373971065845
u15 t4 1.99489423999835
u4 t31 1.67722592299552
u10 t49 2.2550375976662
u46 t20 2.39568800488269
u21 t16 2.3981760064081
u9 t50 1.92762561848521
u22 t33 1.39105232820285
u45 t18 0.903776018960998
???
u35 t9 2.597442449594
u39 t1 2.59239272539233
u11 t3 1.5700331176004
???
u14 t21 1.76612425443672
u25 t39 1.92697907176858
u47 t42 1.05380433965517
u33 t19 1.61564532450463
u24 t34 0.564429283559022

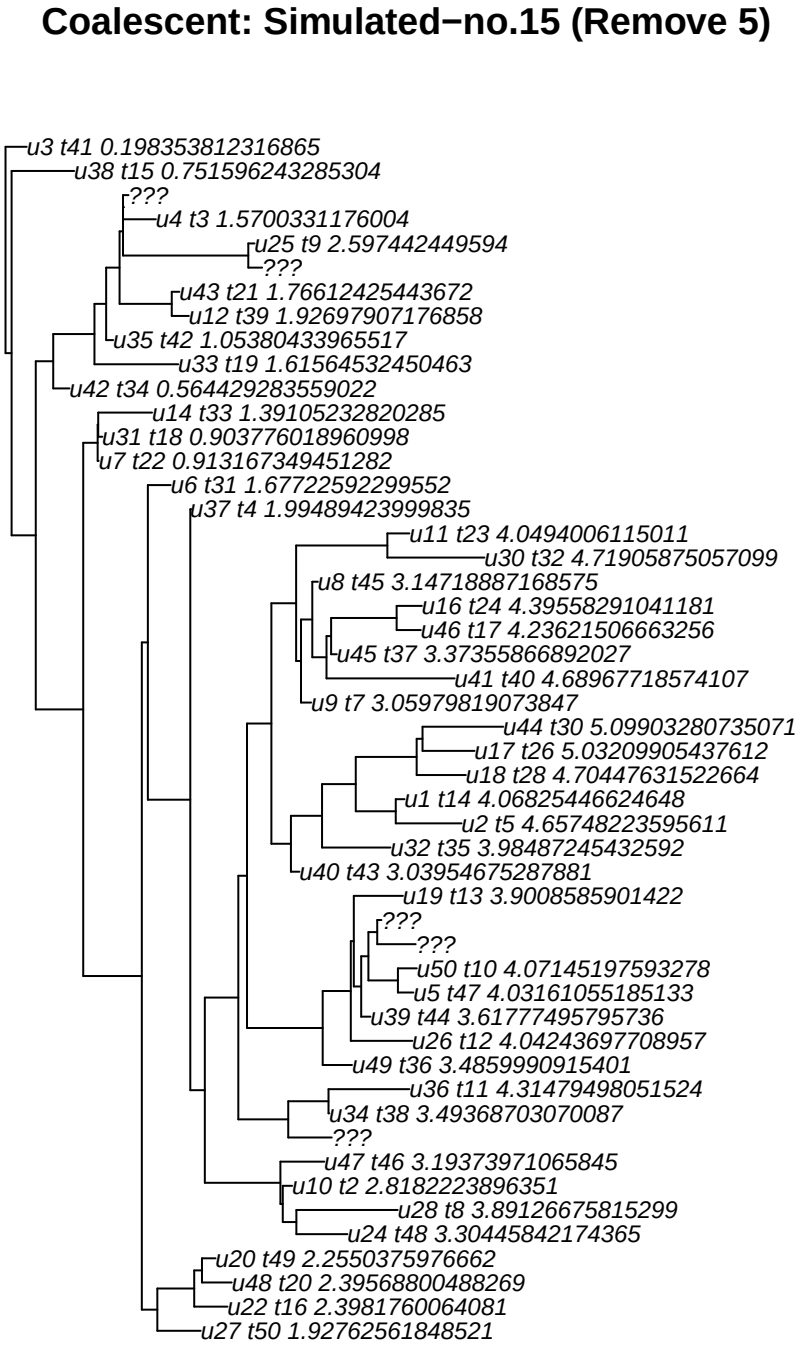

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.032435)
0.2636
0.2444
0.1307
0
1
2
3
4
5
6

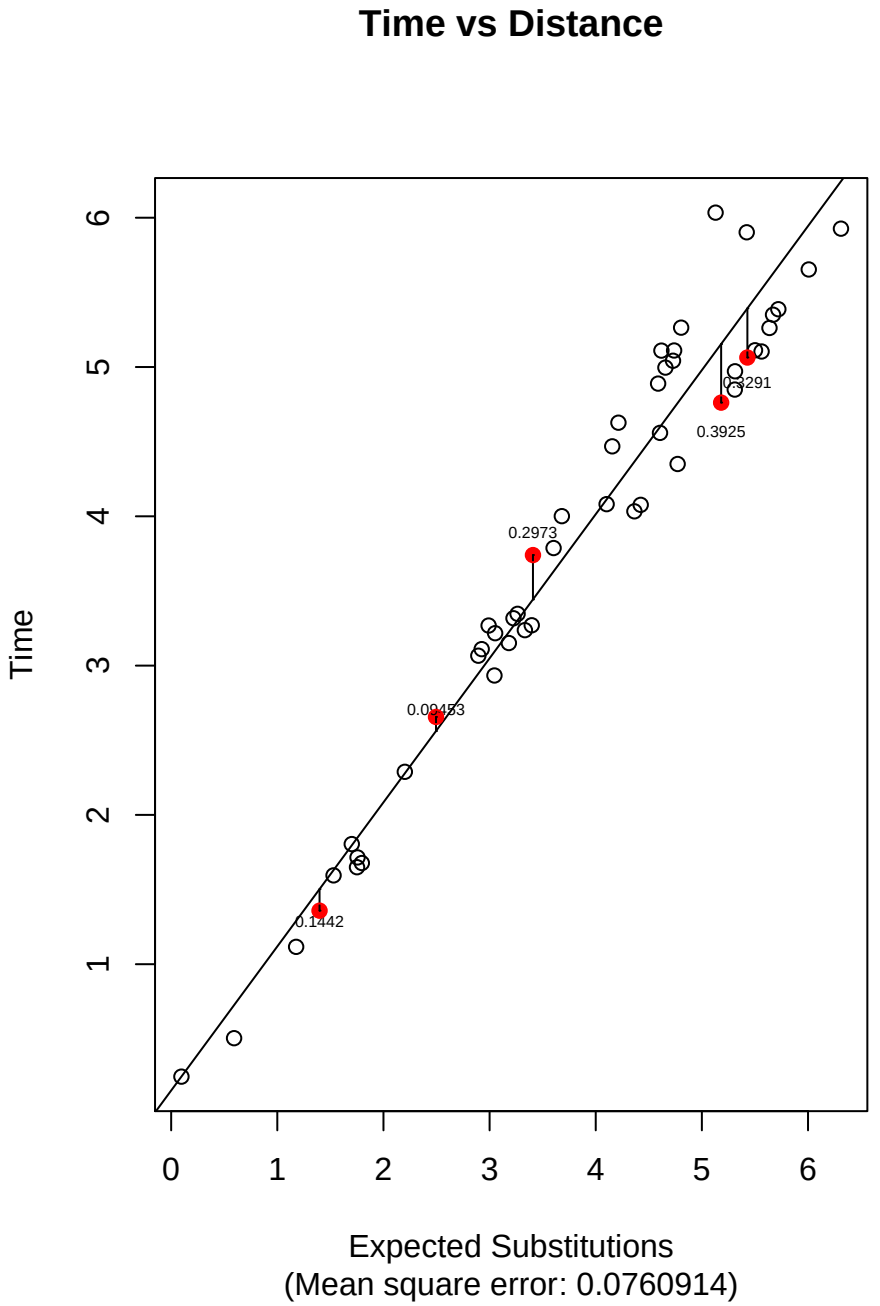

Coalescent: Simulated−no.13 (Remove 5)
u4 t29 1.91251556109622
u42 t11 0.423800840754862
u5 t35 0.476961841159171
u47 t37 0.0444685213352162
u27 t1 1.7046407807945
u31 t32 0.330751828583403
???
u45 t7 4.24764531610726
???
u12 t13 3.6937971165454
u28 t4 3.83893023837582
u8 t42 3.28483893105506
u43 t25 3.09266818367363
u49 t3 2.02259024305445
u39 t23 3.5999084860077
u24 t48 4.04120912378035
u9 t2 3.11480255339886
u25 t39 2.77462507398826
u19 t8 2.63089193959057
u10 t22 3.88950042983368
u40 t38 3.55844729999788
u22 t44 5.09224863447359
u48 t34 4.40155527982498
u34 t5 6.04120297113182
u44 t33 5.21685346341632
u13 t12 5.63534257208792
u7 t46 5.80076639051045
u38 t20 5.07309061589087
u18 t16 4.65427895394365
u1 t31 4.39757811036233
u46 t36 5.96229955702708
u30 t30 6.09768561495792
u50 t15 5.30729182722069
u41 t10 5.6574162933162
u15 t6 4.45426945409968
u36 t45 4.55835606391473
???
u14 t17 3.80280044308864
u29 t47 5.14455971691915
u26 t43 5.20332224594306
u20 t14 5.95584275607107
???
u35 t19 5.57038835544076
u37 t24 3.6358503673327
u17 t18 3.88431754856695
u33 t26 3.64477166622802
???
u11 t27 1.67045352220153
u23 t28 1.52187234216229
u2 t40 1.84240192454229

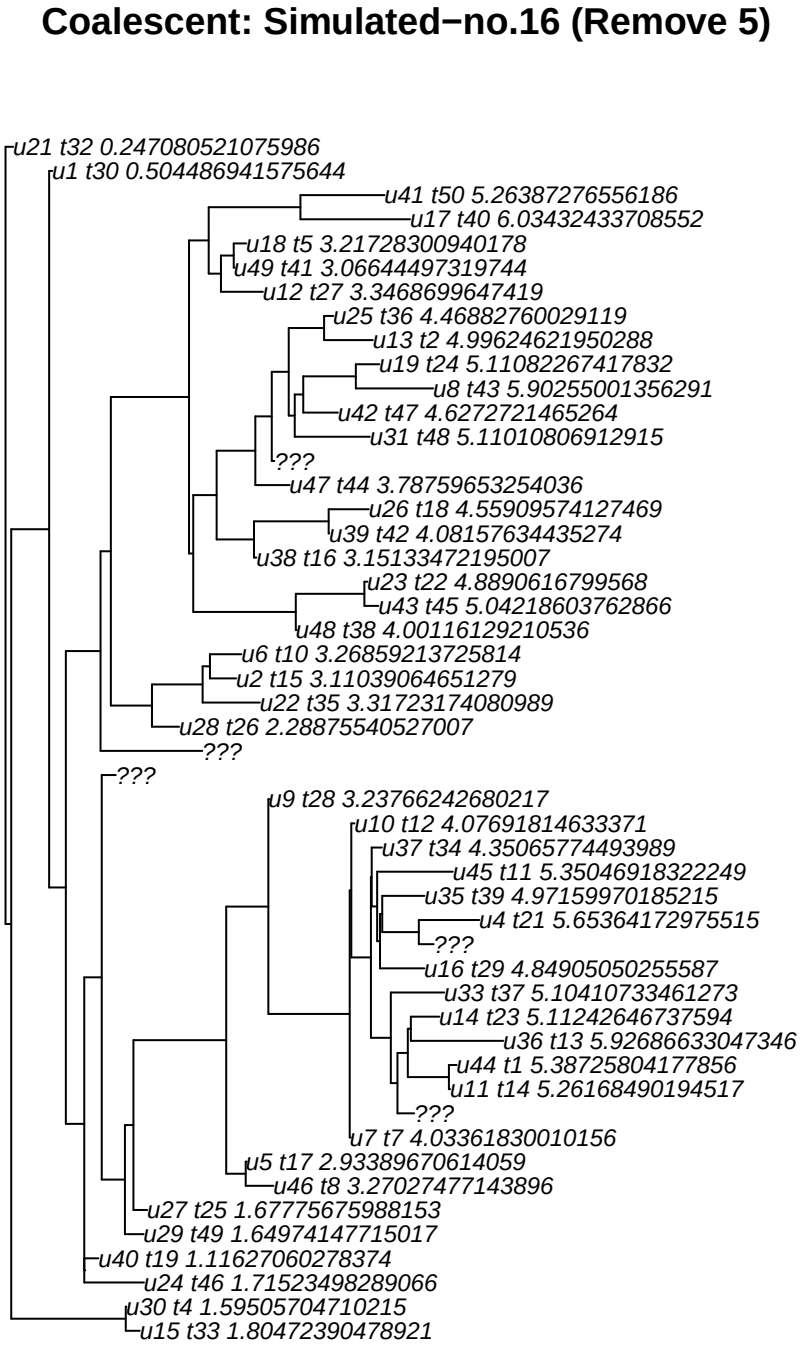

Time vs Distance
Time
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0.08941
0.1641
0.1013
0.1701
Expected Substitutions
(Mean square error: 0.0152508)

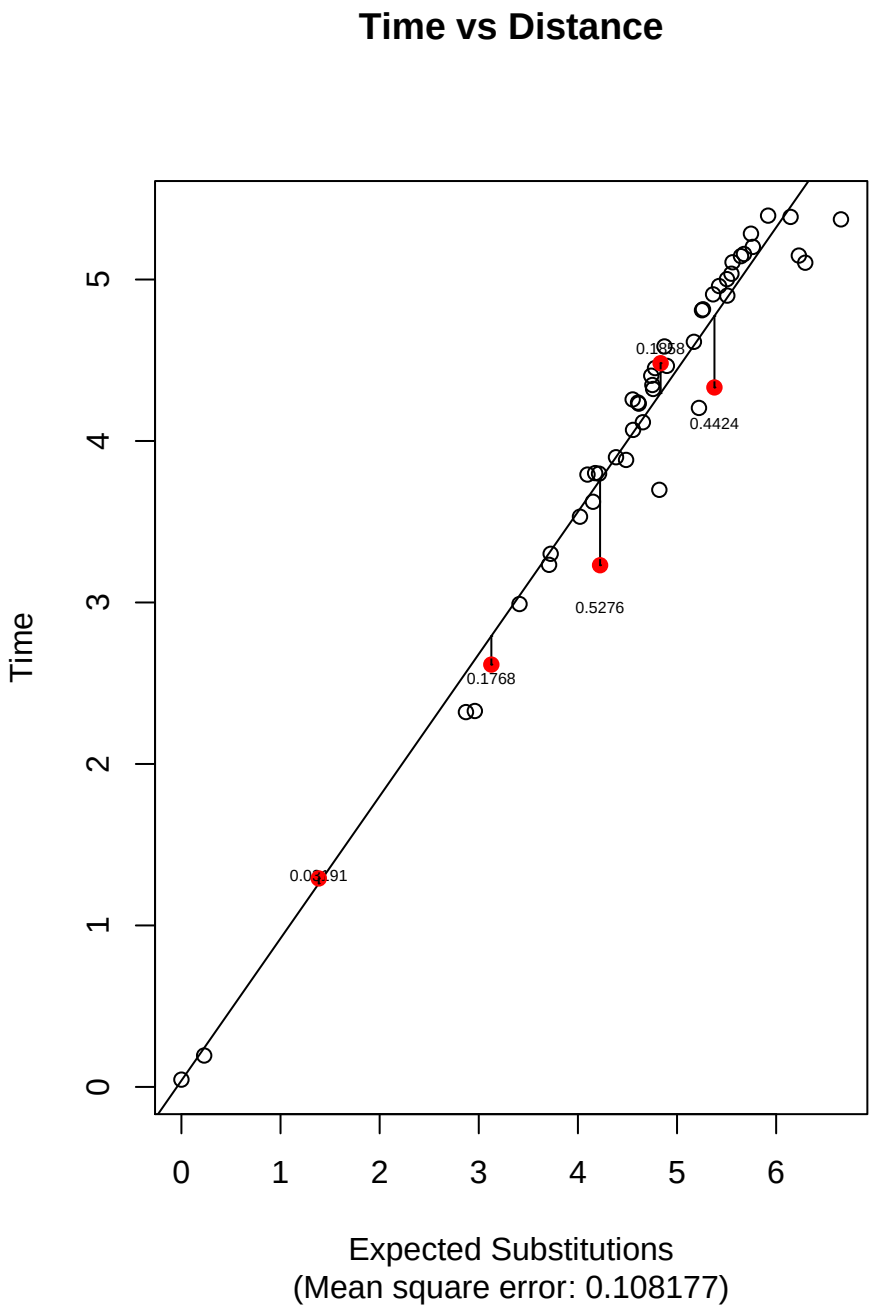

Coalescent: Simulated−no.14 (Remove 5)
u45 t43 0.063424644367373
u29 t16 1.17548204171066
u13 t44 2.36031049127161
u11 t12 2.15247320308599
???
u6 t14 2.47956760501321
u43 t33 3.04062593231749
u42 t27 2.48338943406335
u5 t41 2.0982936107956
u3 t21 1.62968052765741
u36 t22 1.07744926961784
u10 t29 1.16642189516756
u20 t23 1.30700351853936
u47 t26 3.00660747136402
u44 t20 2.70731134351428
u8 t17 2.81138986264884
u4 t1 1.72106979880769
u33 t42 2.56785303886915
u18 t31 3.0649955463175
u17 t18 3.01199498271016
u39 t47 2.18485473954791
u37 t45 1.28606709666009
u27 t11 1.32260855496747
u41 t19 0.959394780532967
u1 t6 2.5204783548756
u9 t25 2.56910988910679
u2 t4 2.91337847935796
u16 t3 2.01324164173444
u14 t30 2.25666842630436
u21 t10 2.09314073293886
u49 t49 1.73358364607753
u15 t35 2.19959913321901
u22 t40 2.35301016257076
u24 t5 2.28924828935499
u12 t38 2.09183172308399
u28 t39 2.67070171744528
???
???
u7 t34 2.14571649811389
u19 t2 1.90653193586381
u30 t9 1.0803285139727
u46 t28 1.01788021711077
u25 t48 2.13483744627302
u35 t7 2.14683063653432
u40 t24 1.71179030796198
u34 t50 1.44807007756655
u50 t8 1.07367962257327
???
???
u48 t32 1.3486900883722

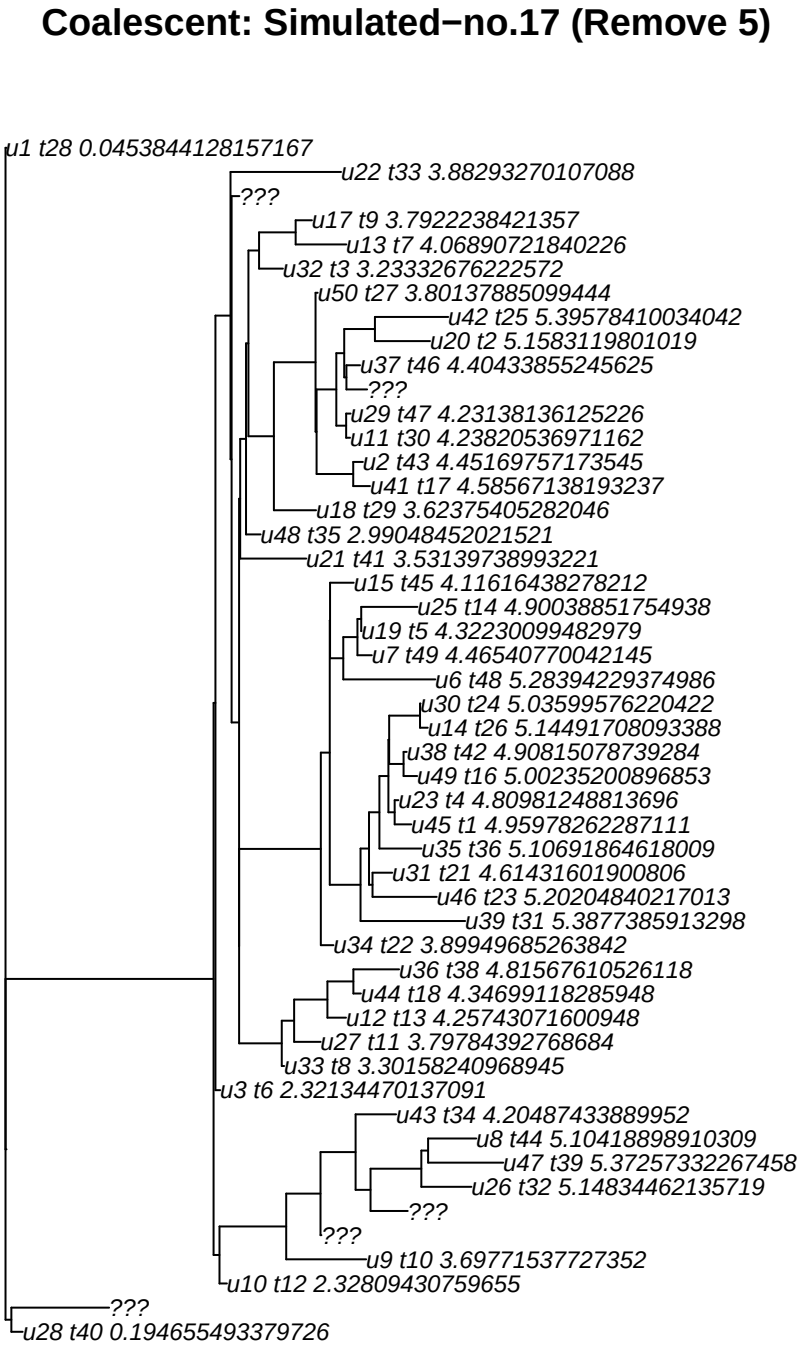

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0136608)
1
2
3
4
5
0.2398
0.101
0.0748

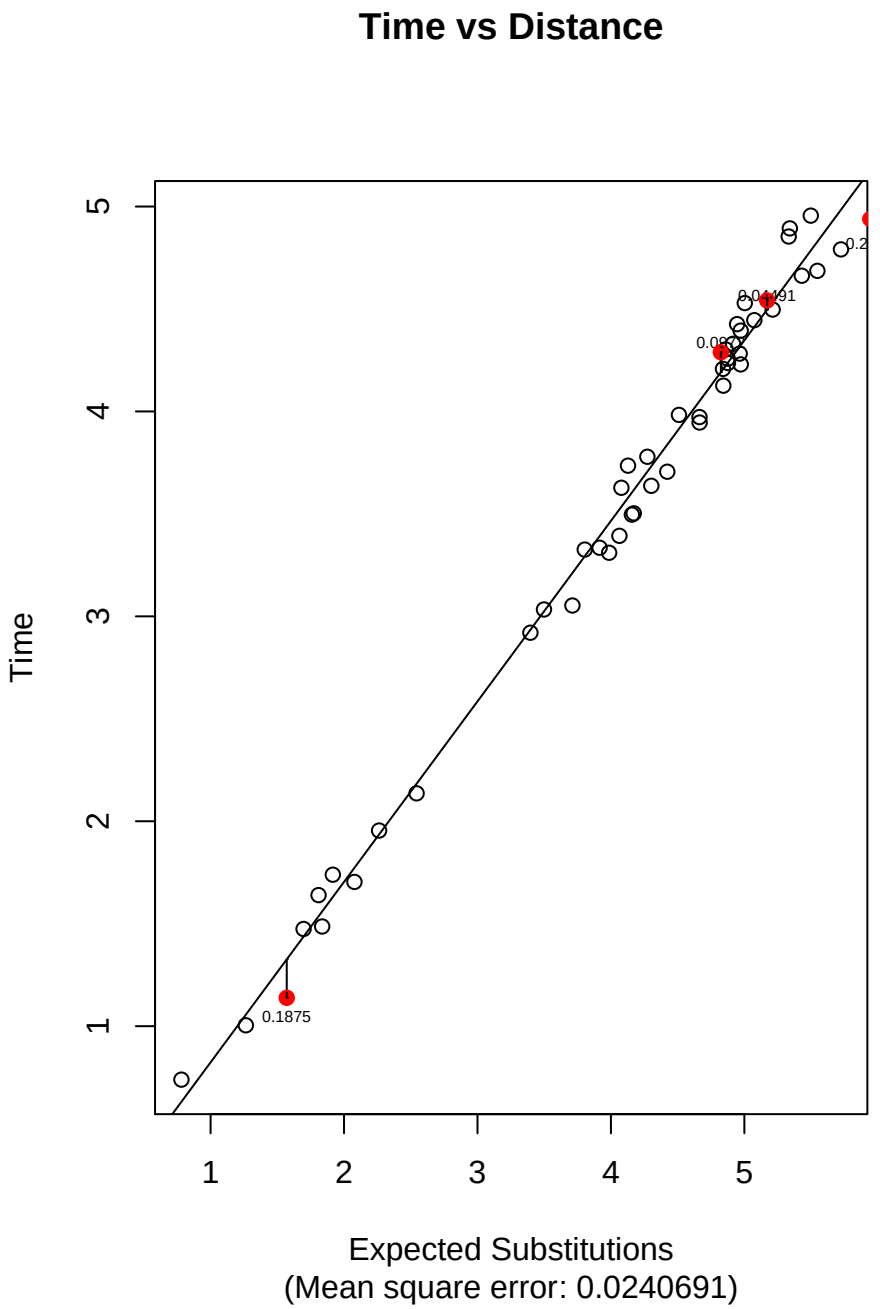

Coalescent: Simulated−no.15 (Remove 5)
u3 t41 0.198353812316865
u38 t15 0.751596243285304
???
u4 t3 1.5700331176004
u25 t9 2.597442449594
???
u43 t21 1.76612425443672
u12 t39 1.92697907176858
u35 t42 1.05380433965517
u33 t19 1.61564532450463
u42 t34 0.564429283559022
u14 t33 1.39105232820285
u31 t18 0.903776018960998
u7 t22 0.913167349451282
u6 t31 1.67722592299552
u37 t4 1.99489423999835
u11 t23 4.0494006115011
u30 t32 4.71905875057099
u8 t45 3.14718887168575
u16 t24 4.39558291041181
u46 t17 4.23621506663256
u45 t37 3.37355866892027
u41 t40 4.68967718574107
u9 t7 3.05979819073847
u44 t30 5.09903280735071
u17 t26 5.03209905437612
u18 t28 4.70447631522664
u1 t14 4.06825446624648
u2 t5 4.65748223595611
u32 t35 3.98487245432592
u40 t43 3.03954675287881
u19 t13 3.9008585901422
???
???
u50 t10 4.07145197593278
u5 t47 4.03161055185133
u39 t44 3.61777495795736
u26 t12 4.04243697708957
u49 t36 3.4859990915401
u36 t11 4.31479498051524
u34 t38 3.49368703070087
???
u47 t46 3.19373971065845
u10 t2 2.8182223896351
u28 t8 3.89126675815299
u24 t48 3.30445842174365
u20 t49 2.2550375976662
u48 t20 2.39568800488269
u22 t16 2.3981760064081
u27 t50 1.92762561848521

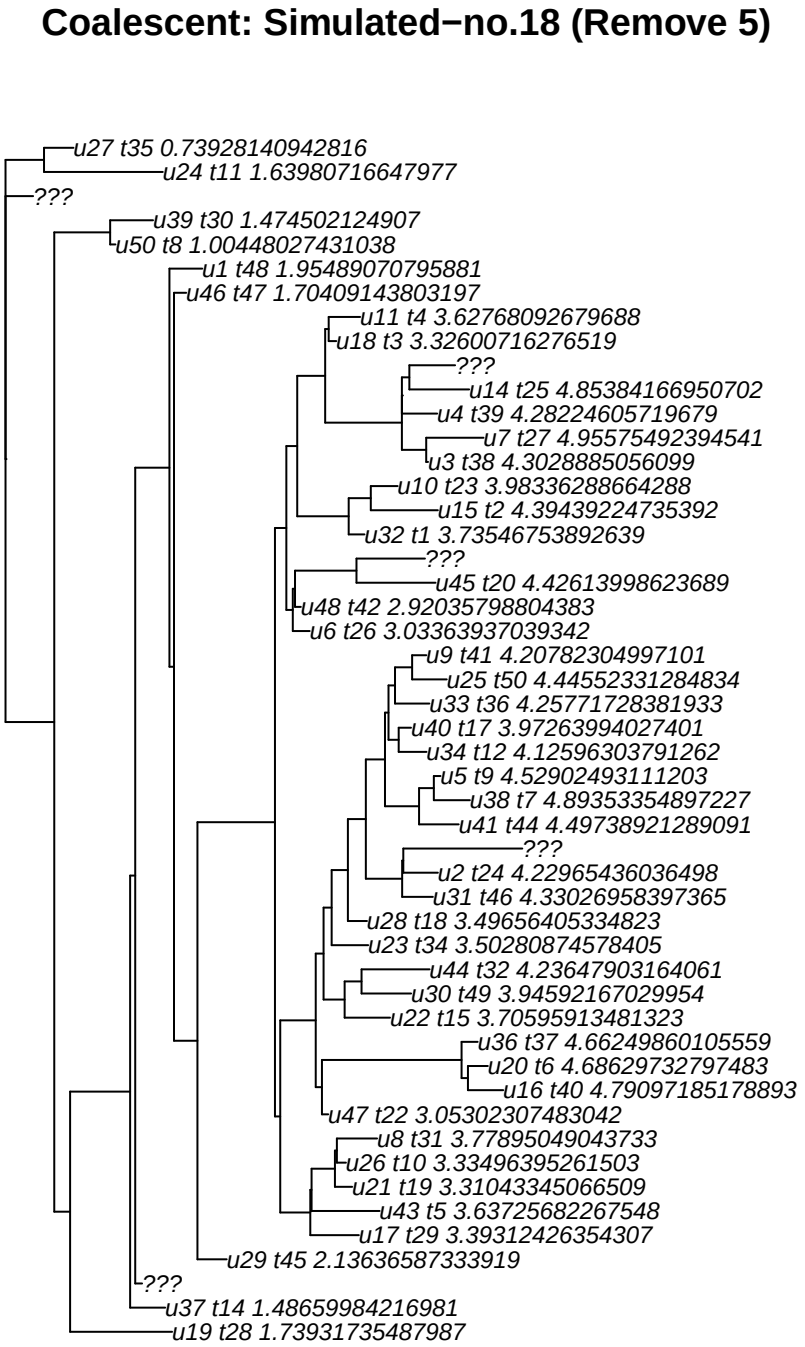

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0760914)
0
1
2
3
4
5
6
0.1442
0.2973
0.3925
0.3291

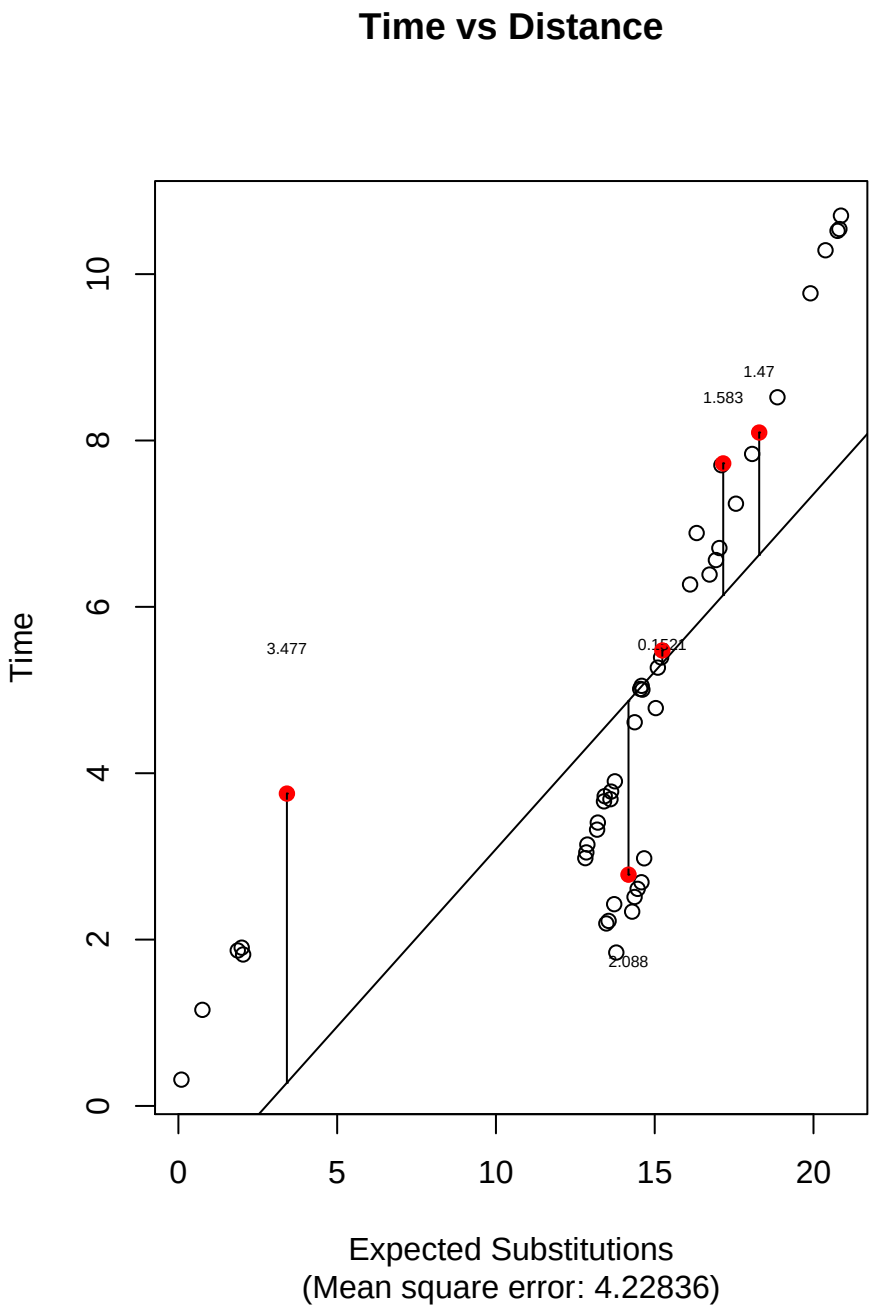

Coalescent: Simulated−no.16 (Remove 5)
u21 t32 0.247080521075986
u1 t30 0.504486941575644
u41 t50 5.26387276556186
u17 t40 6.03432433708552
u18 t5 3.21728300940178
u49 t41 3.06644497319744
u12 t27 3.3468699647419
u25 t36 4.46882760029119
u13 t2 4.99624621950288
u19 t24 5.11082267417832
u8 t43 5.90255001356291
u42 t47 4.6272721465264
u31 t48 5.11010806912915
???
u47 t44 3.78759653254036
u26 t18 4.55909574127469
u39 t42 4.08157634435274
u38 t16 3.15133472195007
u23 t22 4.8890616799568
u43 t45 5.04218603762866
u48 t38 4.00116129210536
u6 t10 3.26859213725814
u2 t15 3.11039064651279
u22 t35 3.31723174080989
u28 t26 2.28875540527007
???
???
u9 t28 3.23766242680217
u10 t12 4.07691814633371
u37 t34 4.35065774493989
u45 t11 5.35046918322249
u35 t39 4.97159970185215
u4 t21 5.65364172975515
???
u16 t29 4.84905050255587
u33 t37 5.10410733461273
u14 t23 5.11242646737594
u36 t13 5.92686633047346
u44 t1 5.38725804177856
u11 t14 5.26168490194517
???
u7 t7 4.03361830010156
u5 t17 2.93389670614059
u46 t8 3.27027477143896
u27 t25 1.67775675988153
u29 t49 1.64974147715017
u40 t19 1.11627060278374
u24 t46 1.71523498289066
u30 t4 1.59505704710215
u15 t33 1.80472390478921

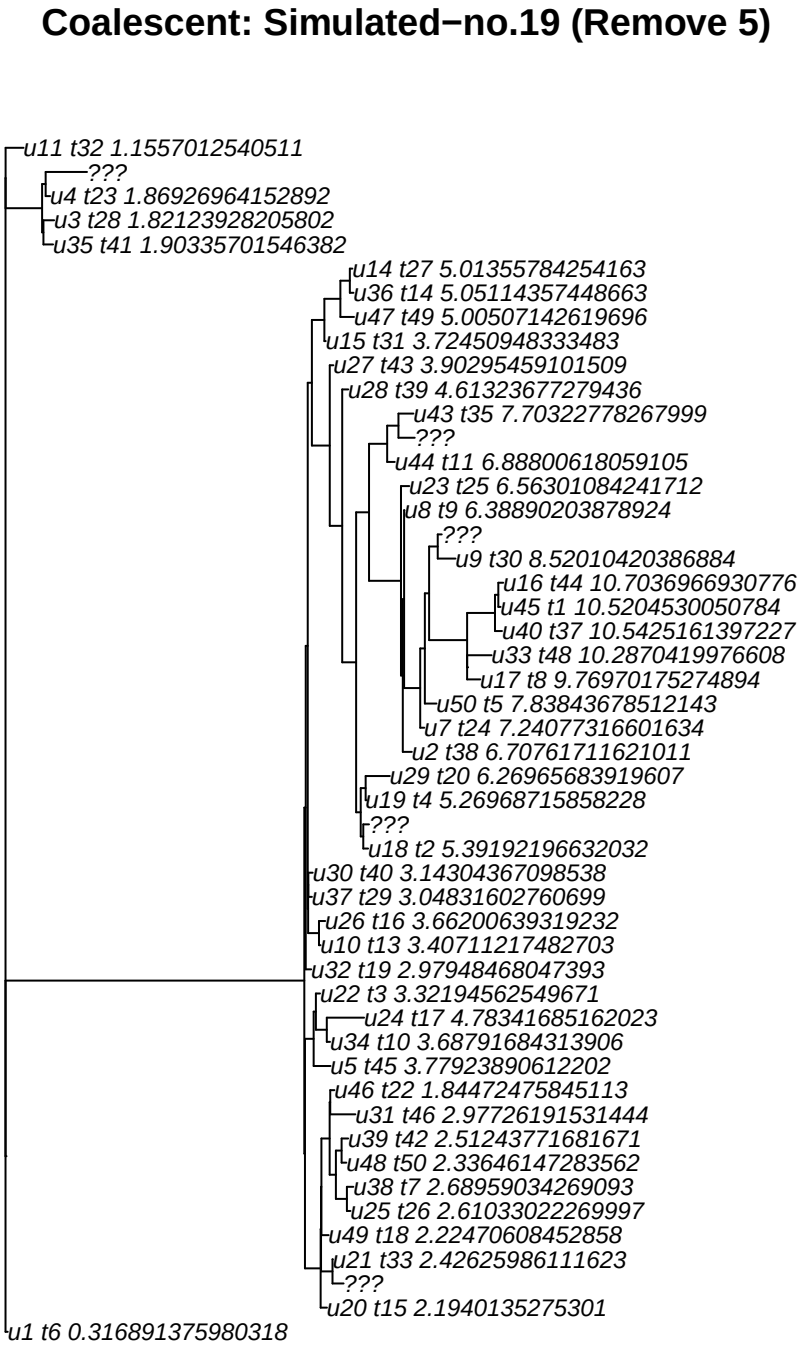

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.108177)
0
1
2
3
4
5
6
0.1768
0.5276
0.4424

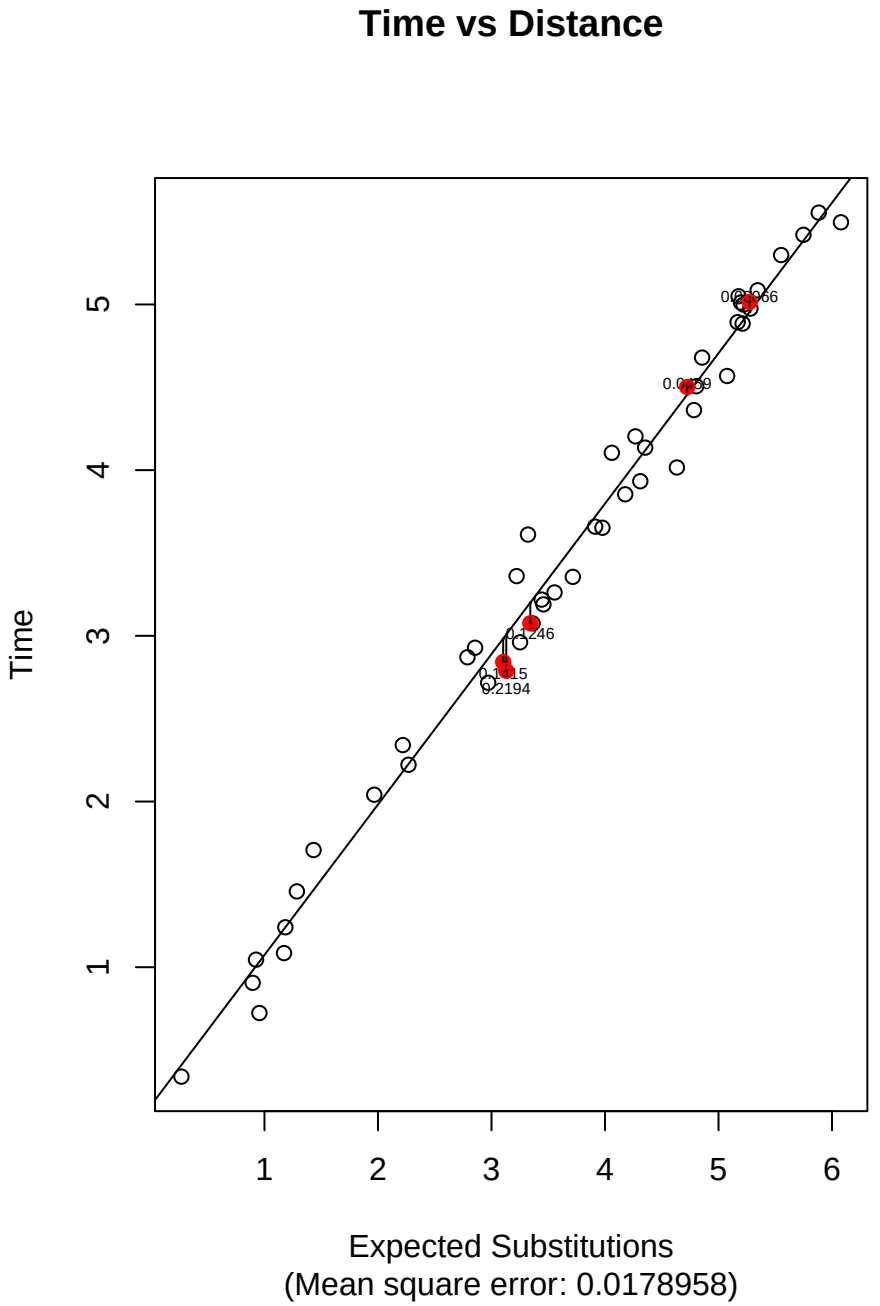

Coalescent: Simulated−no.17 (Remove 5)
u1 t28 0.0453844128157167
u22 t33 3.88293270107088
???
u17 t9 3.7922238421357
u13 t7 4.06890721840226
u32 t3 3.23332676222572
u50 t27 3.80137885099444
u42 t25 5.39578410034042
u20 t2 5.1583119801019
u37 t46 4.40433855245625
???
u29 t47 4.23138136125226
u11 t30 4.23820536971162
u2 t43 4.45169757173545
u41 t17 4.58567138193237
u18 t29 3.62375405282046
u48 t35 2.99048452021521
u21 t41 3.53139738993221
u15 t45 4.11616438278212
u25 t14 4.90038851754938
u19 t5 4.32230099482979
u7 t49 4.46540770042145
u6 t48 5.28394229374986
u30 t24 5.03599576220422
u14 t26 5.14491708093388
u38 t42 4.90815078739284
u49 t16 5.00235200896853
u23 t4 4.80981248813696
u45 t1 4.95978262287111
u35 t36 5.10691864618009
u31 t21 4.61431601900806
u46 t23 5.20204840217013
u39 t31 5.3877385913298
u34 t22 3.89949685263842
u36 t38 4.81567610526118
u44 t18 4.34699118285948
u12 t13 4.25743071600948
u27 t11 3.79784392768684
u33 t8 3.30158240968945
u3 t6 2.32134470137091
u43 t34 4.20487433889952
u8 t44 5.10418898910309
u47 t39 5.37257332267458
u26 t32 5.14834462135719
???
???
u9 t10 3.69771537727352
u10 t12 2.32809430759655
???
u28 t40 0.194655493379726

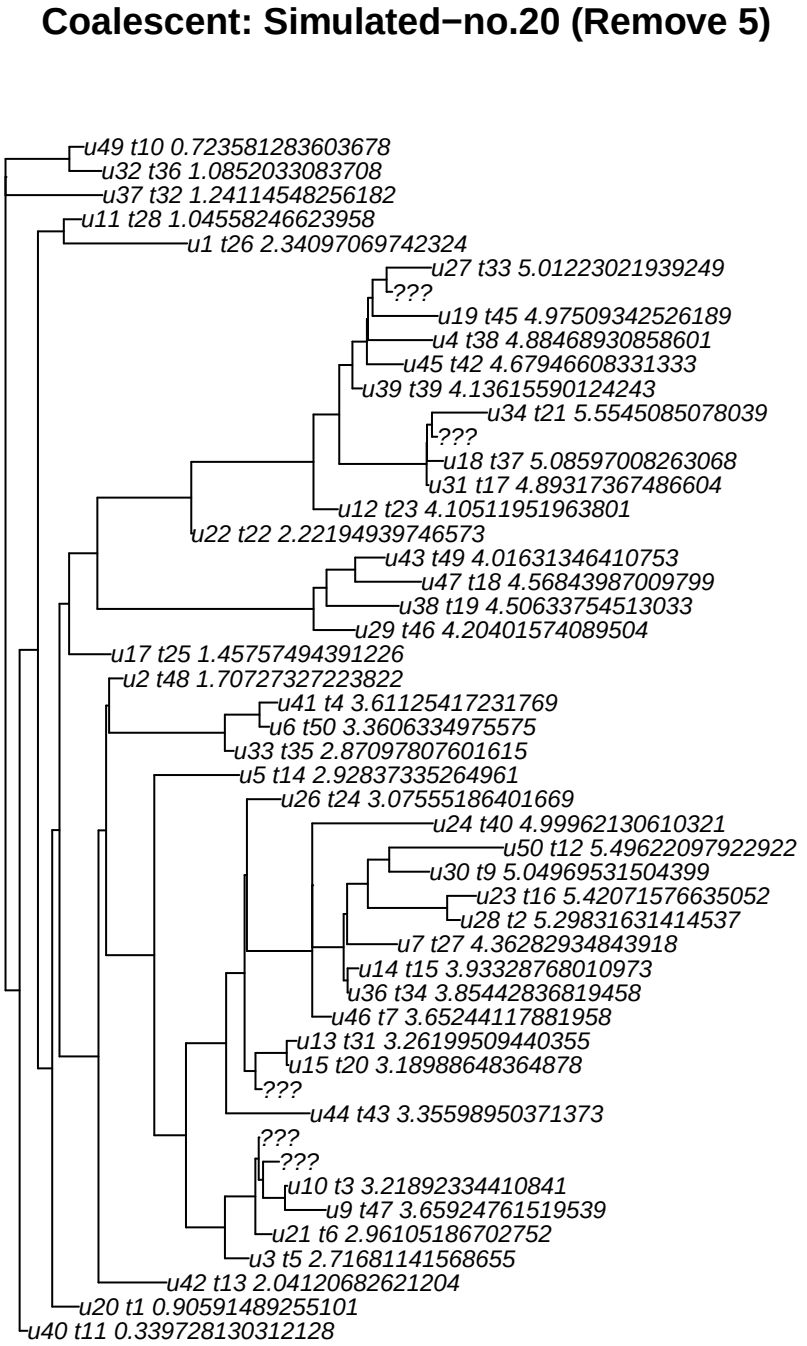

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0240691)
1
2
3
4
5
0.1875

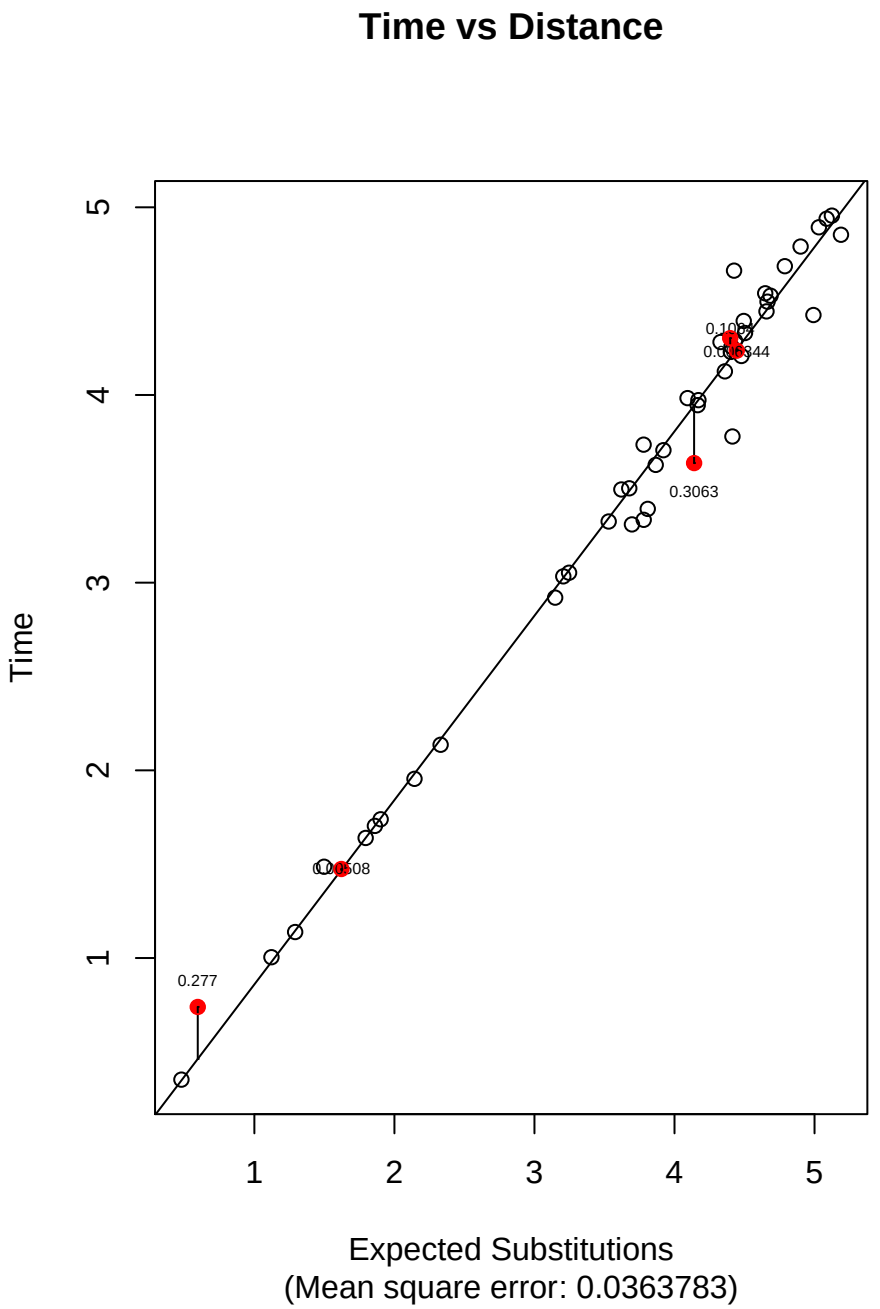

Coalescent: Simulated−no.18 (Remove 5)
u27 t35 0.73928140942816
u24 t11 1.63980716647977
???
u39 t30 1.474502124907
u50 t8 1.00448027431038
u1 t48 1.95489070795881
u46 t47 1.70409143803197
u11 t4 3.62768092679688
u18 t3 3.32600716276519
???
u14 t25 4.85384166950702
u4 t39 4.28224605719679
u7 t27 4.95575492394541
u3 t38 4.3028885056099
u10 t23 3.98336288664288
u15 t2 4.39439224735392
u32 t1 3.73546753892639
???
u45 t20 4.42613998623689
u48 t42 2.92035798804383
u6 t26 3.03363937039342
u9 t41 4.20782304997101
u25 t50 4.44552331284834
u33 t36 4.25771728381933
u40 t17 3.97263994027401
u34 t12 4.12596303791262
u5 t9 4.52902493111203
u38 t7 4.89353354897227
u41 t44 4.49738921289091
???
u2 t24 4.22965436036498
u31 t46 4.33026958397365
u28 t18 3.49656405334823
u23 t34 3.50280874578405
u44 t32 4.23647903164061
u30 t49 3.94592167029954
u22 t15 3.70595913481323
u36 t37 4.66249860105559
u20 t6 4.68629732797483
u16 t40 4.79097185178893
u47 t22 3.05302307483042
u8 t31 3.77895049043733
u26 t10 3.33496395261503
u21 t19 3.31043345066509
u43 t5 3.63725682267548
u17 t29 3.39312426354307
u29 t45 2.13636587333919
???
u37 t14 1.48659984216981
u19 t28 1.73931735487987

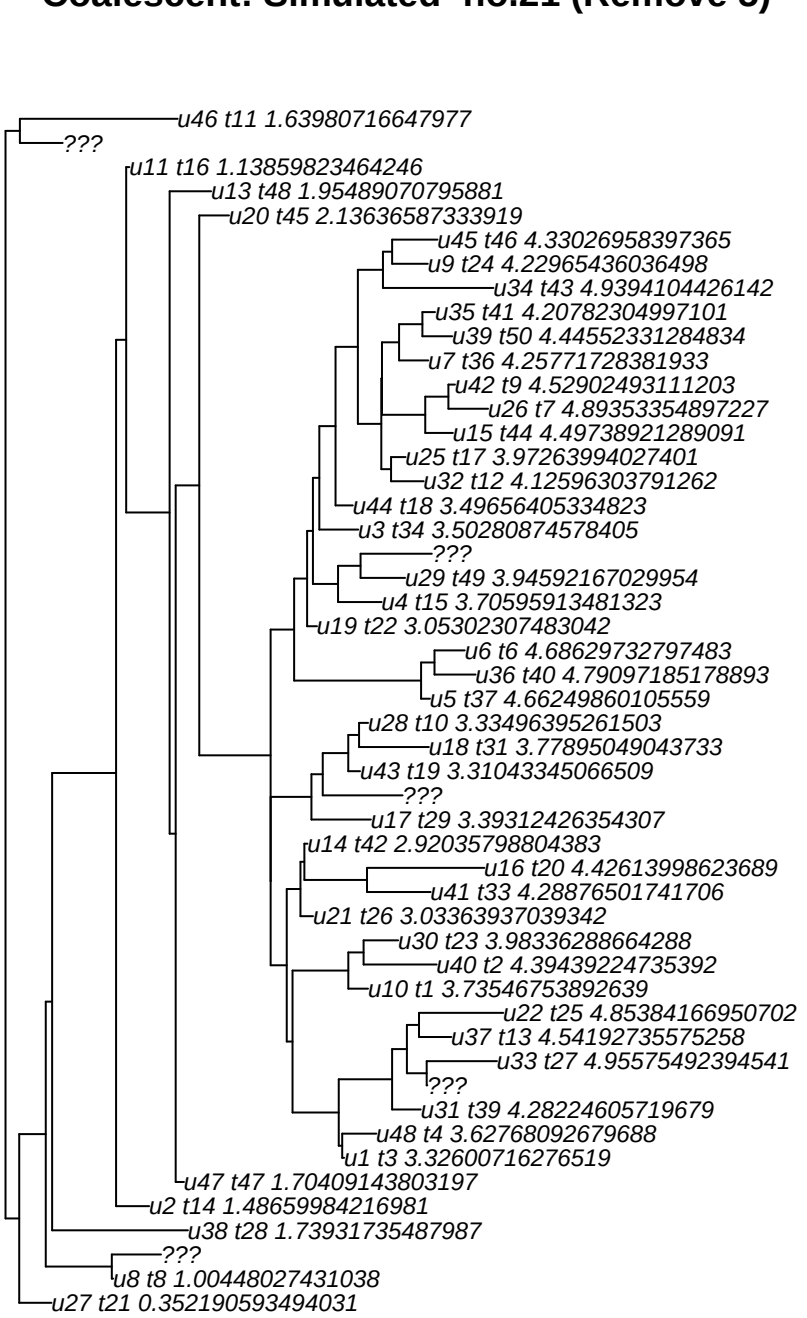

Time vs Distance
Time
Expected Substitutions
(Mean square error: 4.22836)
0
2
4
6
8
10
0
5
10
15
20
3.477
0.1521
1.583
1.47
2.088

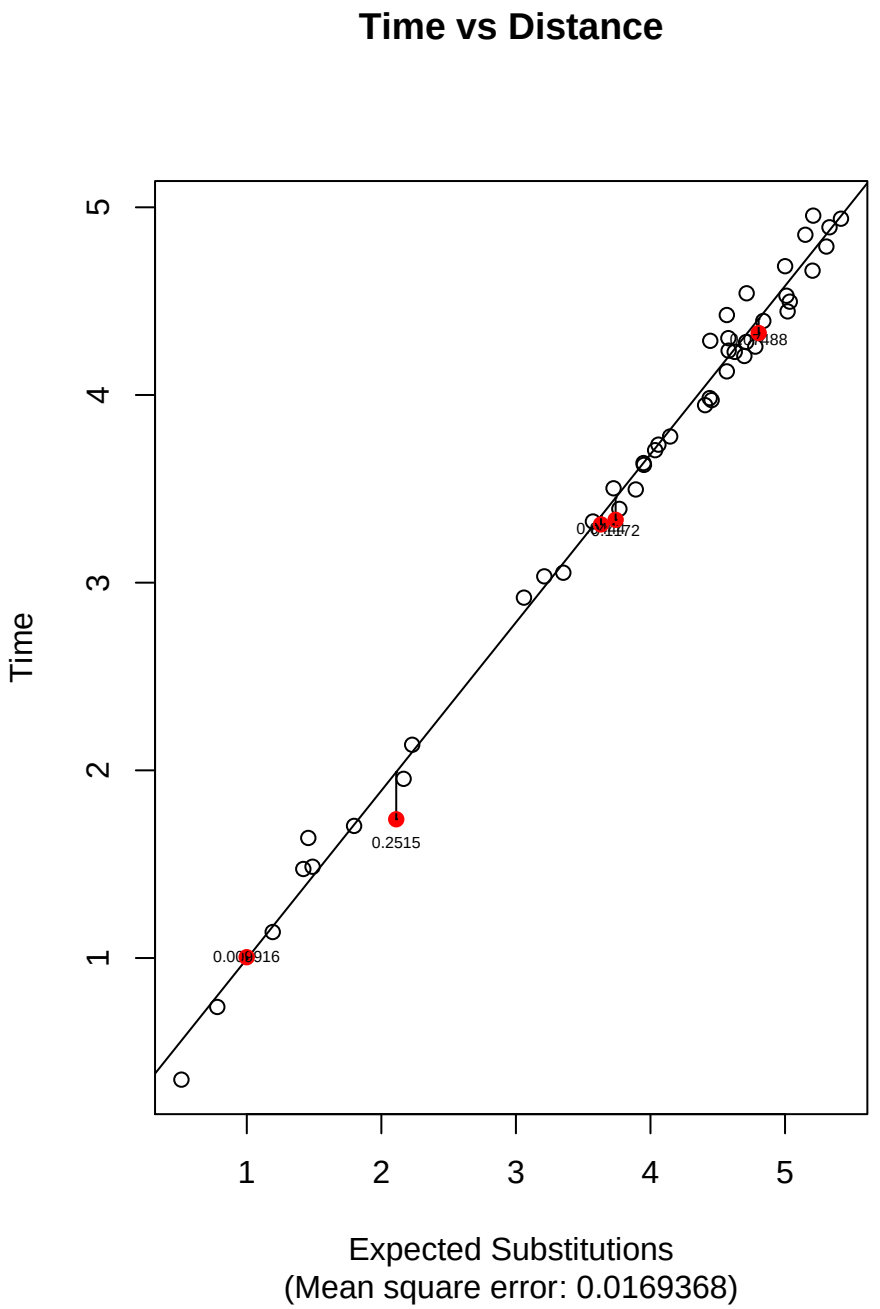

Coalescent: Simulated−no.19 (Remove 5)
u11 t32 1.1557012540511
???
u4 t23 1.86926964152892
u3 t28 1.82123928205802
u35 t41 1.90335701546382
u14 t27 5.01355784254163
u36 t14 5.05114357448663
u47 t49 5.00507142619696
u15 t31 3.72450948333483
u27 t43 3.90295459101509
u28 t39 4.61323677279436
u43 t35 7.70322778267999
???
u44 t11 6.88800618059105
u23 t25 6.56301084241712
u8 t9 6.38890203878924
???
u9 t30 8.52010420386884
u16 t44 10.7036966930776
u45 t1 10.5204530050784
u40 t37 10.5425161397227
u33 t48 10.2870419976608
u17 t8 9.76970175274894
u50 t5 7.83843678512143
u7 t24 7.24077316601634
u2 t38 6.70761711621011
u29 t20 6.26965683919607
u19 t4 5.26968715858228
???
u18 t2 5.39192196632032
u30 t40 3.14304367098538
u37 t29 3.04831602760699
u26 t16 3.66200639319232
u10 t13 3.40711217482703
u32 t19 2.97948468047393
u22 t3 3.32194562549671
u24 t17 4.78341685162023
u34 t10 3.68791684313906
u5 t45 3.77923890612202
u46 t22 1.84472475845113
u31 t46 2.97726191531444
u39 t42 2.51243771681671
u48 t50 2.33646147283562
u38 t7 2.68959034269093
u25 t26 2.61033022269997
u49 t18 2.22470608452858
u21 t33 2.42625986111623
???
u20 t15 2.1940135275301
u1 t6 0.316891375980318

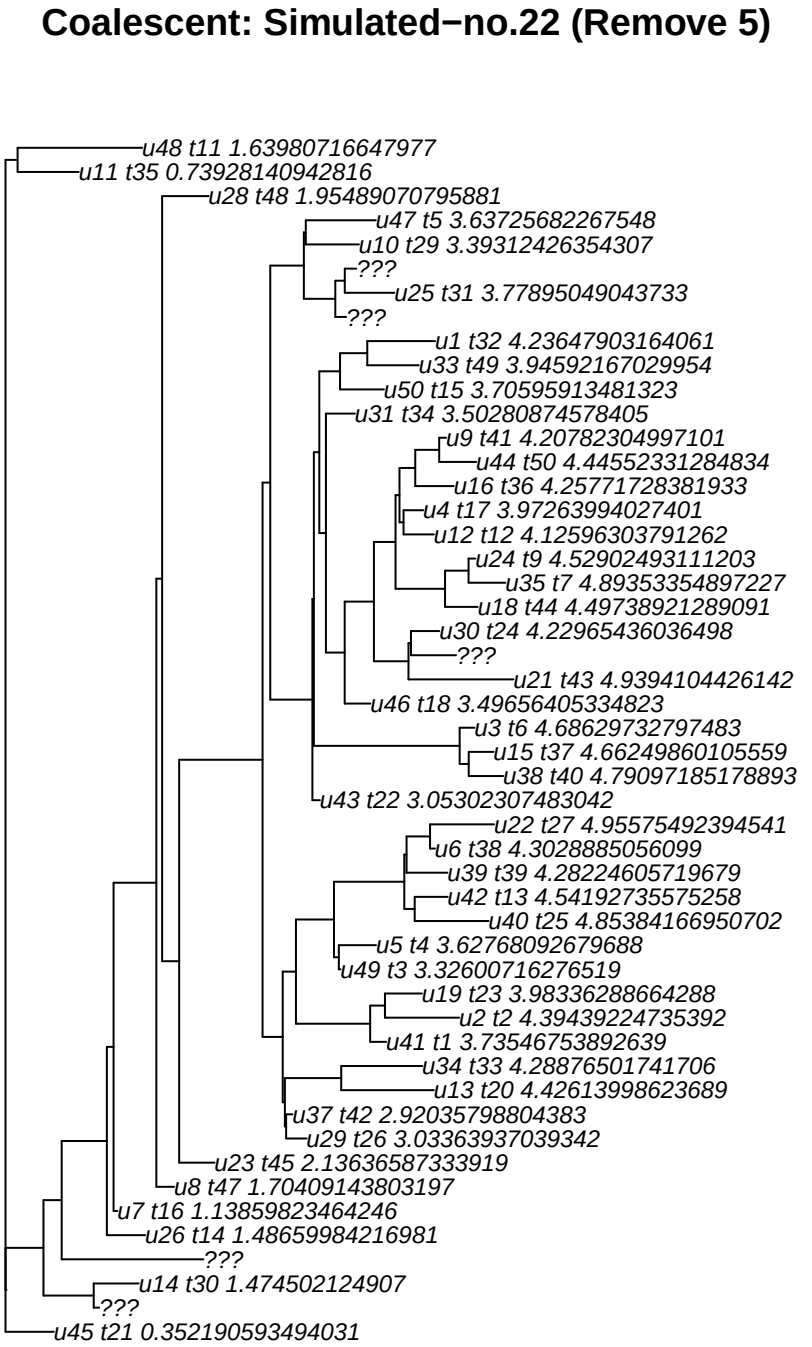

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0178958)
1
2
3
4
5
6
0.1246
0.1415
0.2194

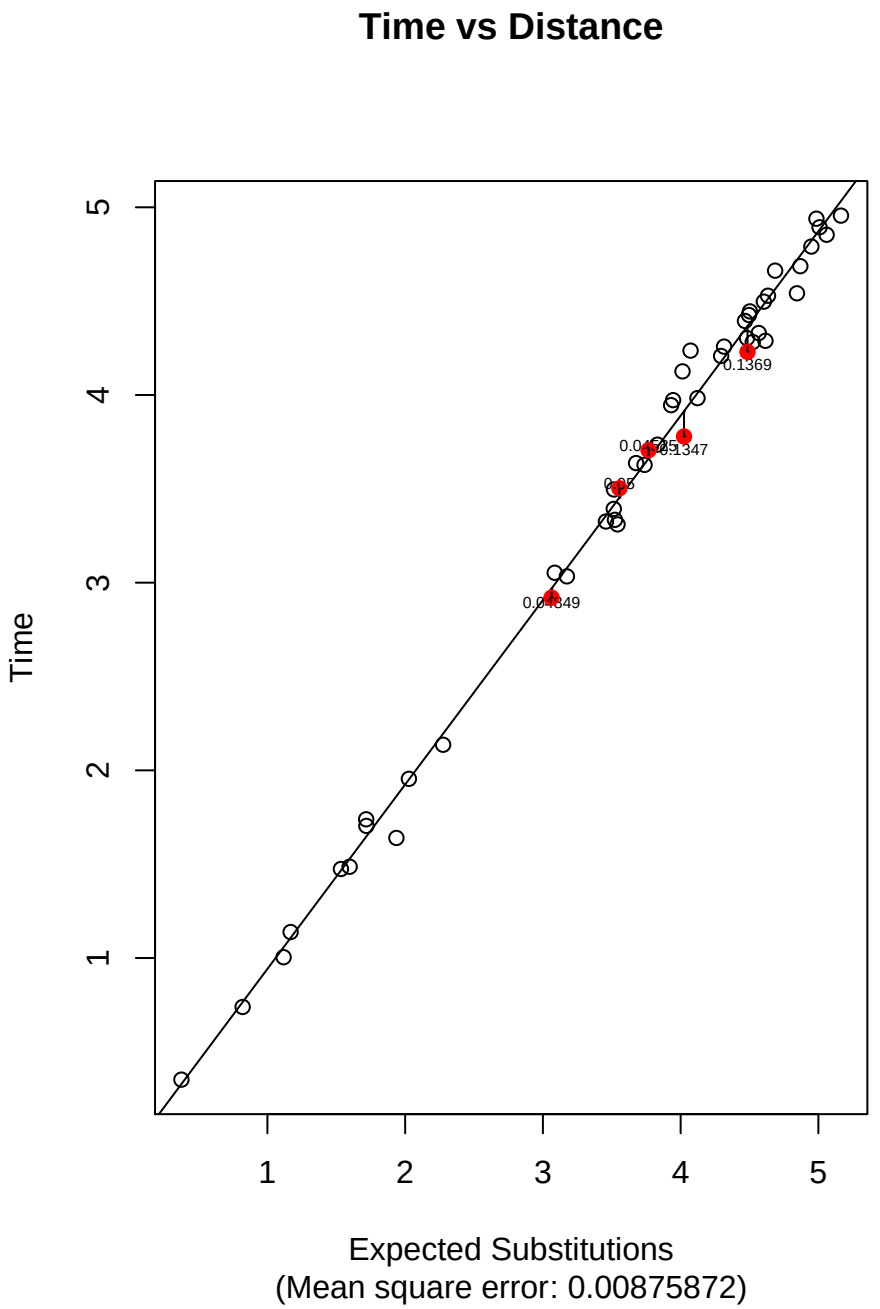

Coalescent: Simulated−no.20 (Remove 5)
u49 t10 0.723581283603678
u32 t36 1.0852033083708
u37 t32 1.24114548256182
u11 t28 1.04558246623958
u1 t26 2.34097069742324
u27 t33 5.01223021939249
???
u19 t45 4.97509342526189
u4 t38 4.88468930858601
u45 t42 4.67946608331333
u39 t39 4.13615590124243
u34 t21 5.5545085078039
???
u18 t37 5.08597008263068
u31 t17 4.89317367486604
u12 t23 4.10511951963801
u22 t22 2.22194939746573
u43 t49 4.01631346410753
u47 t18 4.56843987009799
u38 t19 4.50633754513033
u29 t46 4.20401574089504
u17 t25 1.45757494391226
u2 t48 1.70727327223822
u41 t4 3.61125417231769
u6 t50 3.3606334975575
u33 t35 2.87097807601615
u5 t14 2.92837335264961
u26 t24 3.07555186401669
u24 t40 4.99962130610321
u50 t12 5.49622097922922
u30 t9 5.04969531504399
u23 t16 5.42071576635052
u28 t2 5.29831631414537
u7 t27 4.36282934843918
u14 t15 3.93328768010973
u36 t34 3.85442836819458
u46 t7 3.65244117881958
u13 t31 3.26199509440355
u15 t20 3.18988648364878
???
u44 t43 3.35598950371373
???
???
u10 t3 3.21892334410841
u9 t47 3.65924761519539
u21 t6 2.96105186702752
u3 t5 2.71681141568655
u42 t13 2.04120682621204
u20 t1 0.90591489255101
u40 t11 0.339728130312128

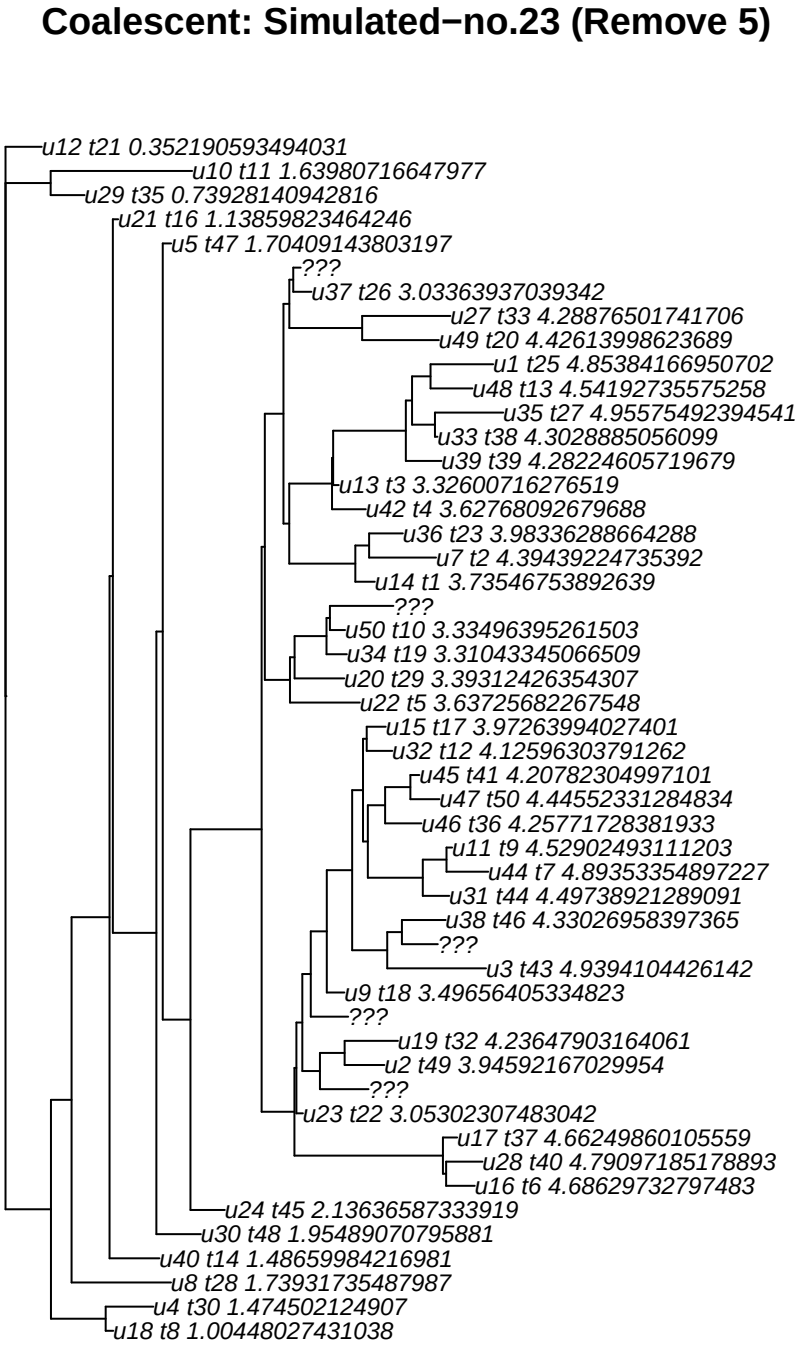

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0363783)
0.277
0.3063
1
2
3
4
5

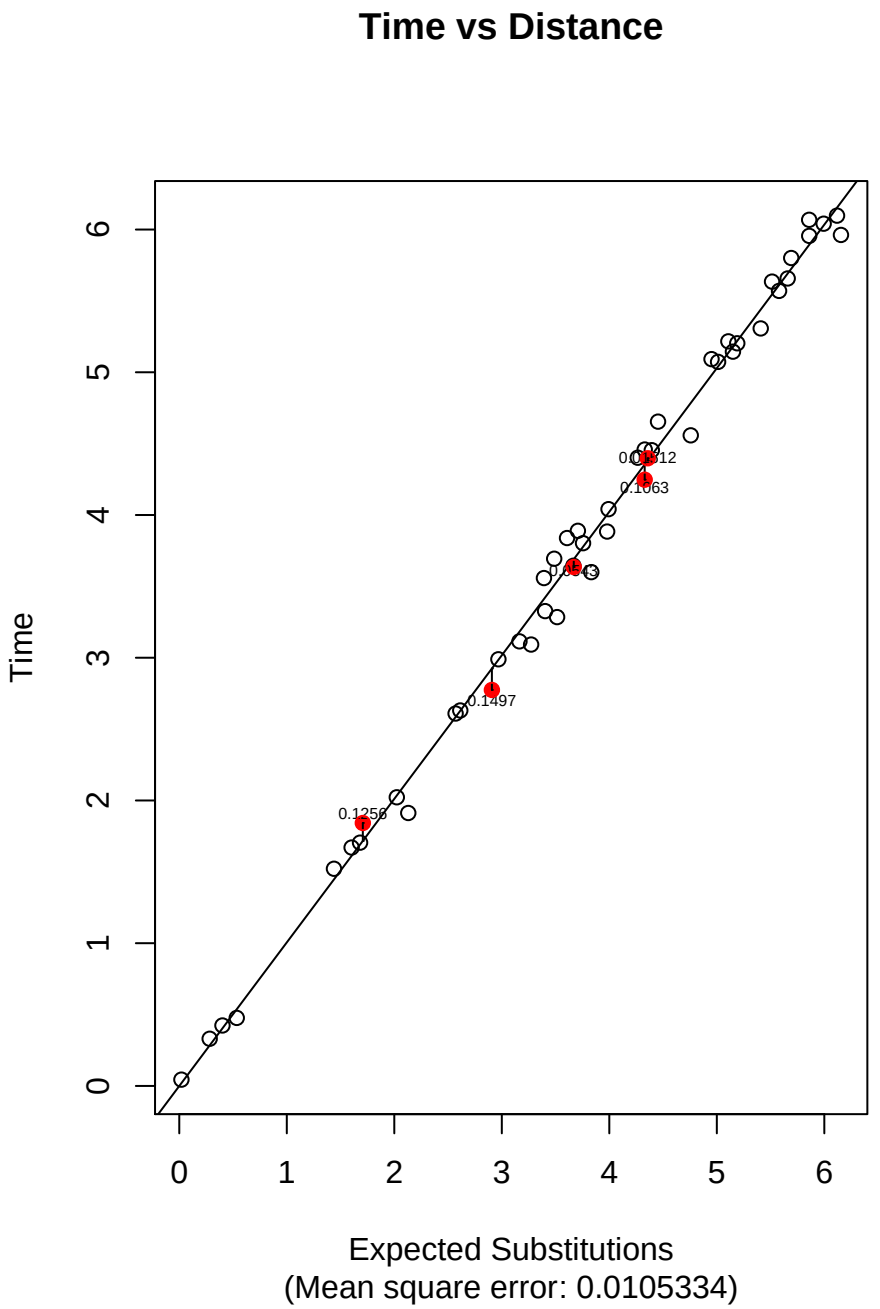

Coalescent: Simulated−no.21 (Remove 5)
u46 t11 1.63980716647977
???
u11 t16 1.13859823464246
u13 t48 1.95489070795881
u20 t45 2.13636587333919
u45 t46 4.33026958397365
u9 t24 4.22965436036498
u34 t43 4.9394104426142
u35 t41 4.20782304997101
u39 t50 4.44552331284834
u7 t36 4.25771728381933
u42 t9 4.52902493111203
u26 t7 4.89353354897227
u15 t44 4.49738921289091
u25 t17 3.97263994027401
u32 t12 4.12596303791262
u44 t18 3.49656405334823
u3 t34 3.50280874578405
???
u29 t49 3.94592167029954
u4 t15 3.70595913481323
u19 t22 3.05302307483042
u6 t6 4.68629732797483
u36 t40 4.79097185178893
u5 t37 4.66249860105559
u28 t10 3.33496395261503
u18 t31 3.77895049043733
u43 t19 3.31043345066509
???
u17 t29 3.39312426354307
u14 t42 2.92035798804383
u16 t20 4.42613998623689
u41 t33 4.28876501741706
u21 t26 3.03363937039342
u30 t23 3.98336288664288
u40 t2 4.39439224735392
u10 t1 3.73546753892639
u22 t25 4.85384166950702
u37 t13 4.54192735575258
u33 t27 4.95575492394541
???
u31 t39 4.28224605719679
u48 t4 3.62768092679688
u1 t3 3.32600716276519
u47 t47 1.70409143803197
u2 t14 1.48659984216981
u38 t28 1.73931735487987
???
u8 t8 1.00448027431038
u27 t21 0.352190593494031

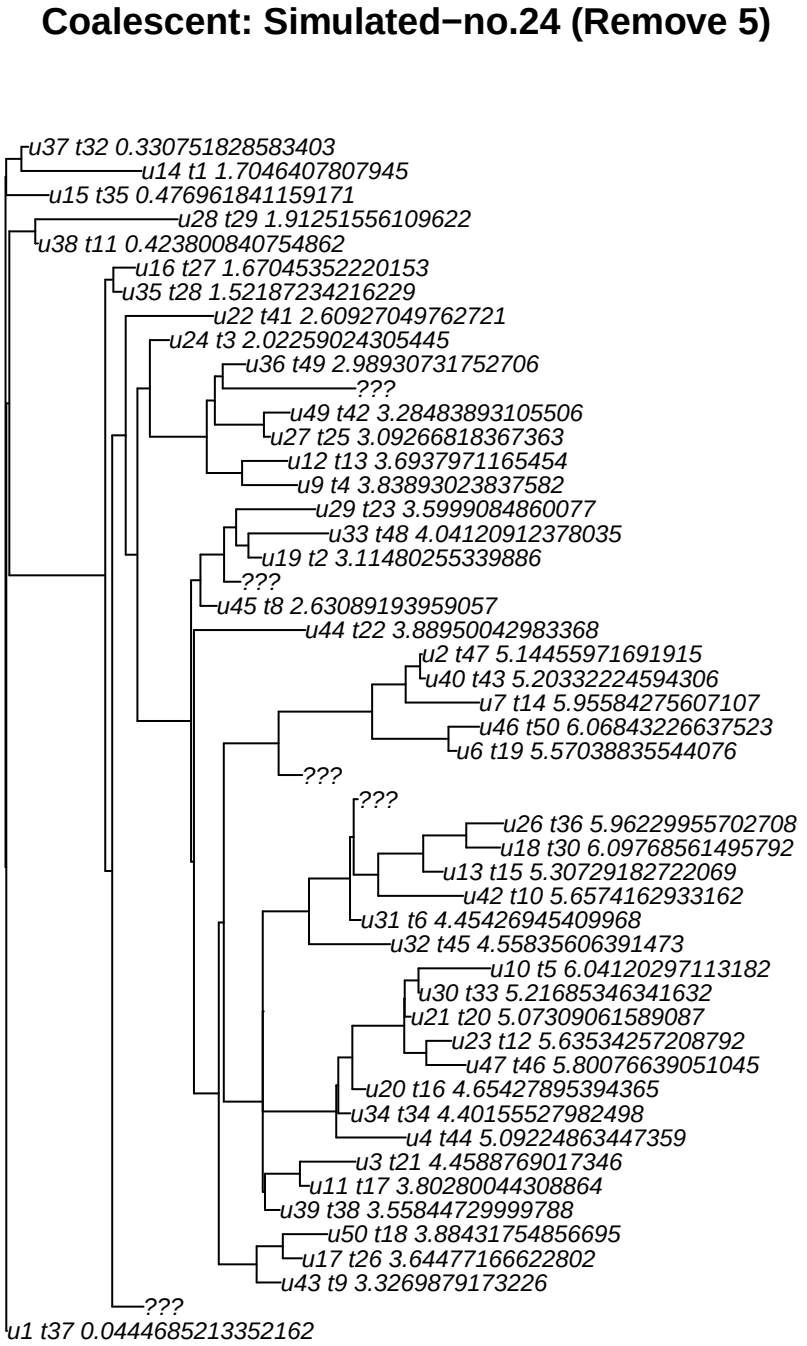

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0169368)
1
2
3
4
5
0.2515

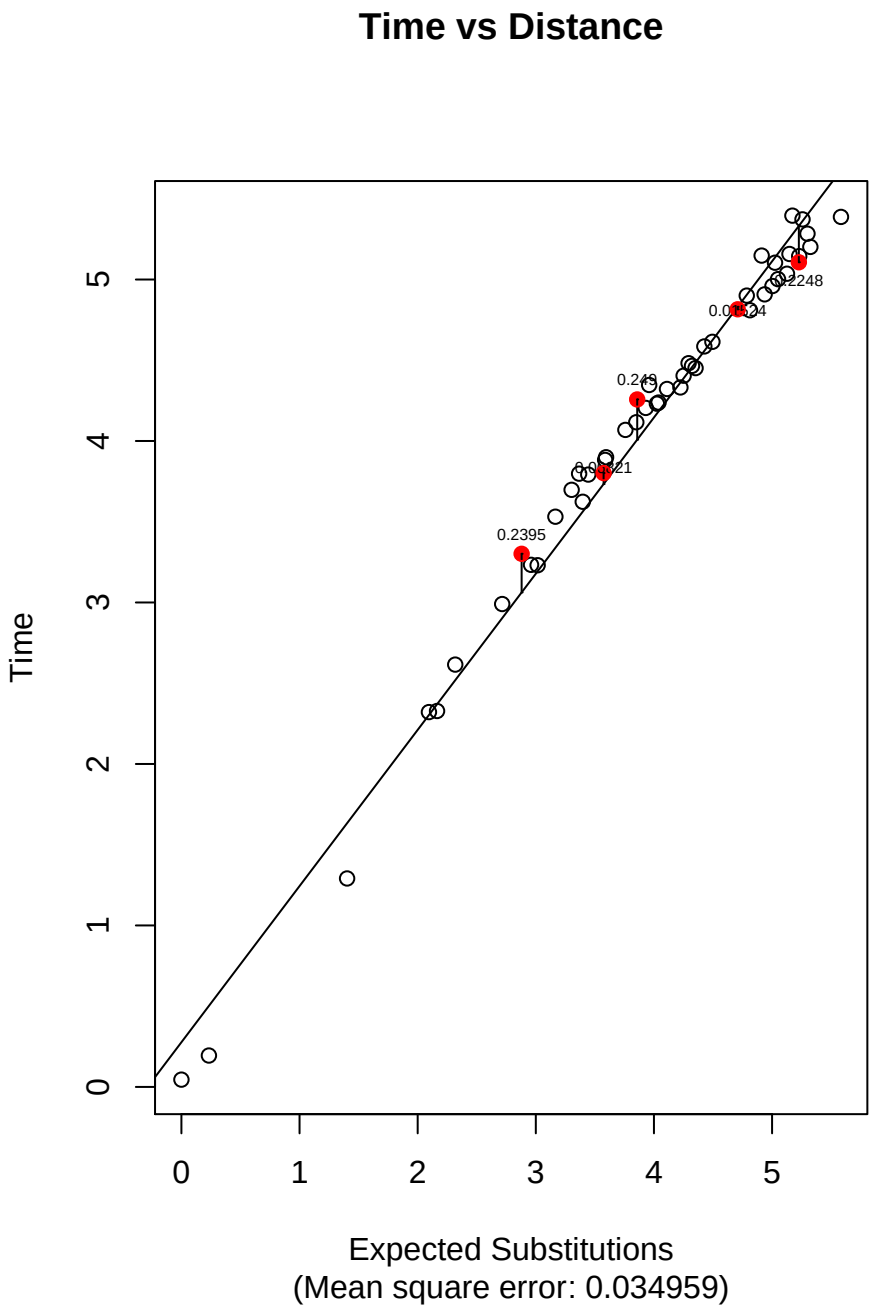

Coalescent: Simulated−no.22 (Remove 5)
u48 t11 1.63980716647977
u11 t35 0.73928140942816
u28 t48 1.95489070795881
u47 t5 3.63725682267548
u10 t29 3.39312426354307
???
u25 t31 3.77895049043733
???
u1 t32 4.23647903164061
u33 t49 3.94592167029954
u50 t15 3.70595913481323
u31 t34 3.50280874578405
u9 t41 4.20782304997101
u44 t50 4.44552331284834
u16 t36 4.25771728381933
u4 t17 3.97263994027401
u12 t12 4.12596303791262
u24 t9 4.52902493111203
u35 t7 4.89353354897227
u18 t44 4.49738921289091
u30 t24 4.22965436036498
???
u21 t43 4.9394104426142
u46 t18 3.49656405334823
u3 t6 4.68629732797483
u15 t37 4.66249860105559
u38 t40 4.79097185178893
u43 t22 3.05302307483042
u22 t27 4.95575492394541
u6 t38 4.3028885056099
u39 t39 4.28224605719679
u42 t13 4.54192735575258
u40 t25 4.85384166950702
u5 t4 3.62768092679688
u49 t3 3.32600716276519
u19 t23 3.98336288664288
u2 t2 4.39439224735392
u41 t1 3.73546753892639
u34 t33 4.28876501741706
u13 t20 4.42613998623689
u37 t42 2.92035798804383
u29 t26 3.03363937039342
u23 t45 2.13636587333919
u8 t47 1.70409143803197
u7 t16 1.13859823464246
u26 t14 1.48659984216981
???
u14 t30 1.474502124907
???
u45 t21 0.352190593494031

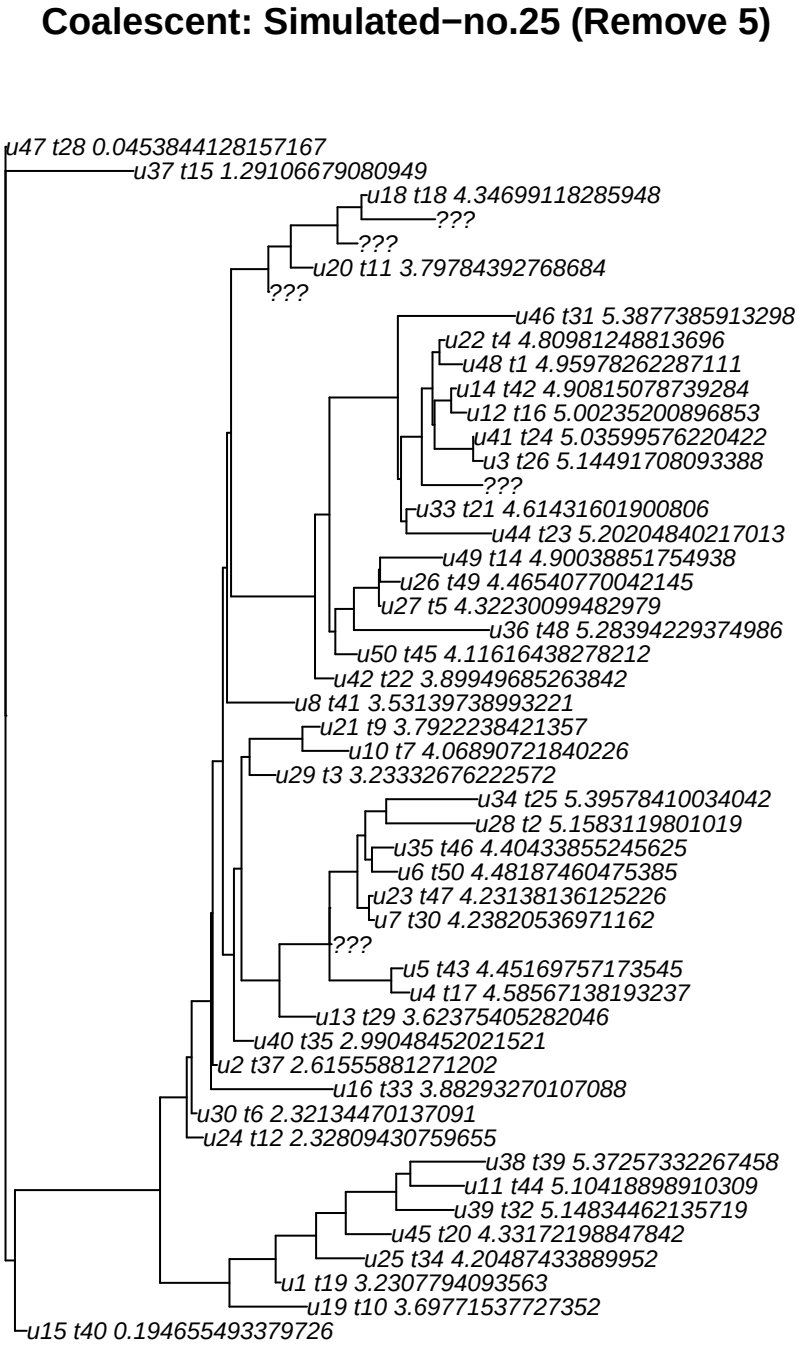

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00875872)
1
2
3
4
5
0.1369
0.1347
0.04849

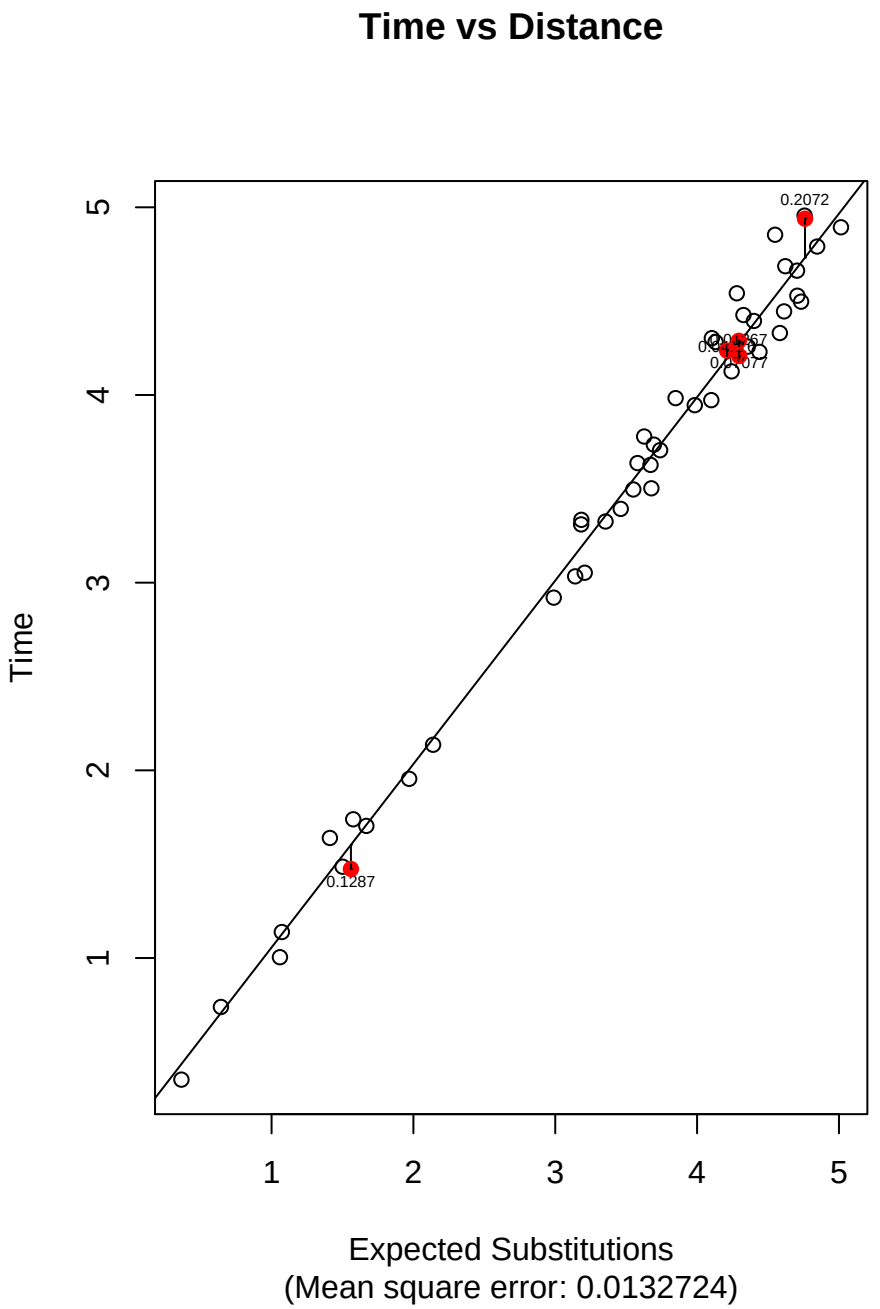

Coalescent: Simulated−no.23 (Remove 5)
u12 t21 0.352190593494031
u10 t11 1.63980716647977
u29 t35 0.73928140942816
u21 t16 1.13859823464246
u5 t47 1.70409143803197
???
u37 t26 3.03363937039342
u27 t33 4.28876501741706
u49 t20 4.42613998623689
u1 t25 4.85384166950702
u48 t13 4.54192735575258
u35 t27 4.95575492394541
u33 t38 4.3028885056099
u39 t39 4.28224605719679
u13 t3 3.32600716276519
u42 t4 3.62768092679688
u36 t23 3.98336288664288
u7 t2 4.39439224735392
u14 t1 3.73546753892639
???
u50 t10 3.33496395261503
u34 t19 3.31043345066509
u20 t29 3.39312426354307
u22 t5 3.63725682267548
u15 t17 3.97263994027401
u32 t12 4.12596303791262
u45 t41 4.20782304997101
u47 t50 4.44552331284834
u46 t36 4.25771728381933
u11 t9 4.52902493111203
u44 t7 4.89353354897227
u31 t44 4.49738921289091
u38 t46 4.33026958397365
???
u3 t43 4.9394104426142
u9 t18 3.49656405334823
???
u19 t32 4.23647903164061
u2 t49 3.94592167029954
???
u23 t22 3.05302307483042
u17 t37 4.66249860105559
u28 t40 4.79097185178893
u16 t6 4.68629732797483
u24 t45 2.13636587333919
u30 t48 1.95489070795881
u40 t14 1.48659984216981
u8 t28 1.73931735487987
u4 t30 1.474502124907
u18 t8 1.00448027431038

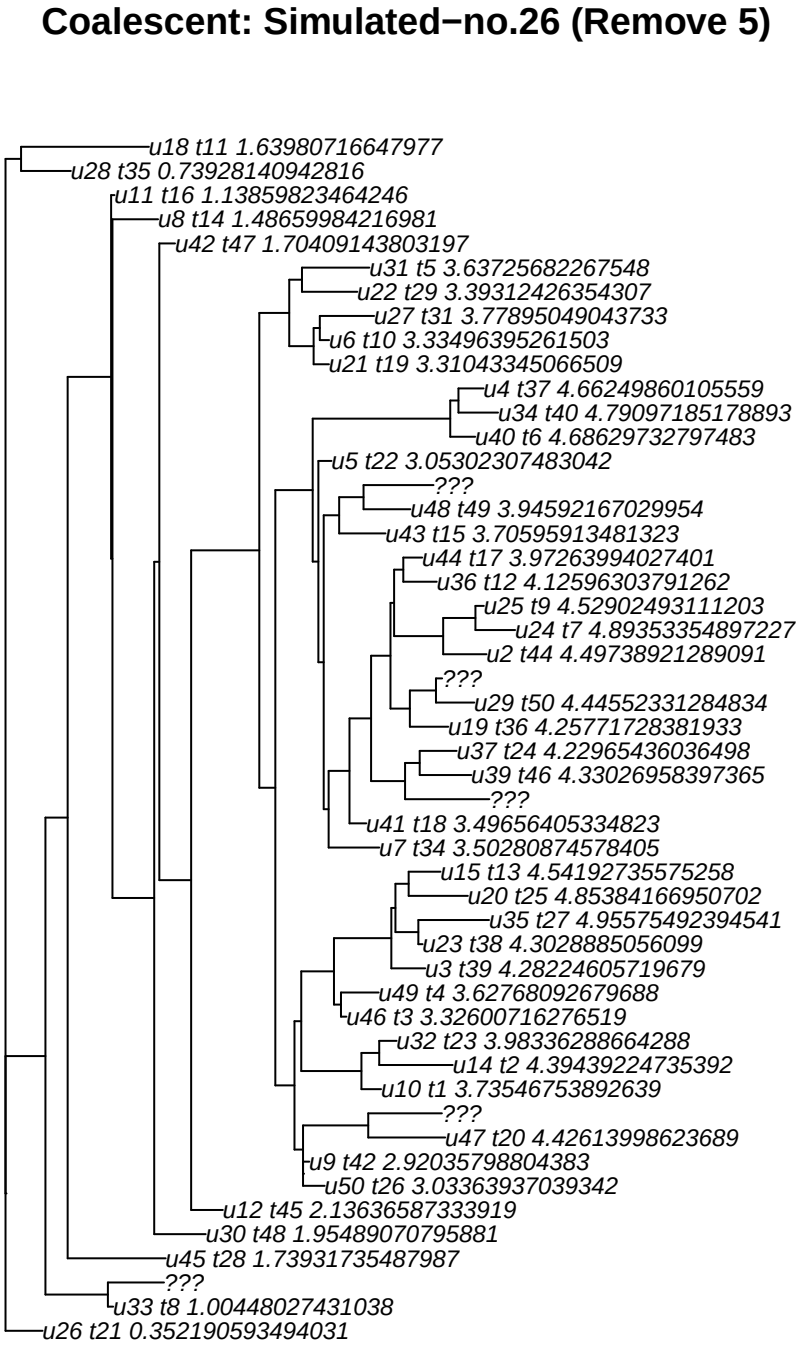

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0105334)
0
1
2
3
4
5
6
0.1256
0.1497
0.1063

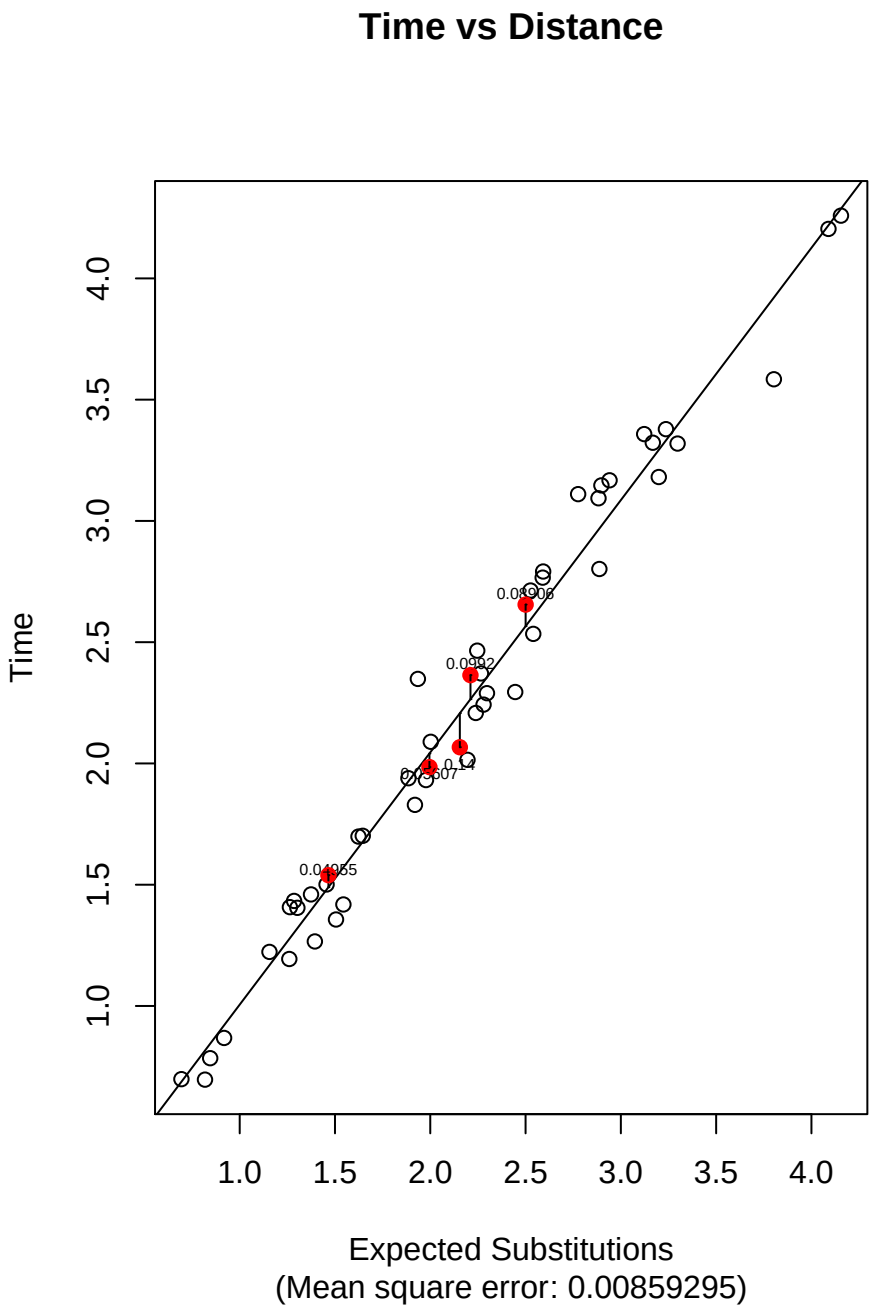

Coalescent: Simulated−no.24 (Remove 5)
u37 t32 0.330751828583403
u14 t1 1.7046407807945
u15 t35 0.476961841159171
u28 t29 1.91251556109622
u38 t11 0.423800840754862
u16 t27 1.67045352220153
u35 t28 1.52187234216229
u22 t41 2.60927049762721
u24 t3 2.02259024305445
u36 t49 2.98930731752706
???
u49 t42 3.28483893105506
u27 t25 3.09266818367363
u12 t13 3.6937971165454
u9 t4 3.83893023837582
u29 t23 3.5999084860077
u33 t48 4.04120912378035
u19 t2 3.11480255339886
???
u45 t8 2.63089193959057
u44 t22 3.88950042983368
u2 t47 5.14455971691915
u40 t43 5.20332224594306
u7 t14 5.95584275607107
u46 t50 6.06843226637523
u6 t19 5.57038835544076
???
???
u26 t36 5.96229955702708
u18 t30 6.09768561495792
u13 t15 5.30729182722069
u42 t10 5.6574162933162
u31 t6 4.45426945409968
u32 t45 4.55835606391473
u10 t5 6.04120297113182
u30 t33 5.21685346341632
u21 t20 5.07309061589087
u23 t12 5.63534257208792
u47 t46 5.80076639051045
u20 t16 4.65427895394365
u34 t34 4.40155527982498
u4 t44 5.09224863447359
u3 t21 4.4588769017346
u11 t17 3.80280044308864
u39 t38 3.55844729999788
u50 t18 3.88431754856695
u17 t26 3.64477166622802
u43 t9 3.3269879173226
???
u1 t37 0.0444685213352162

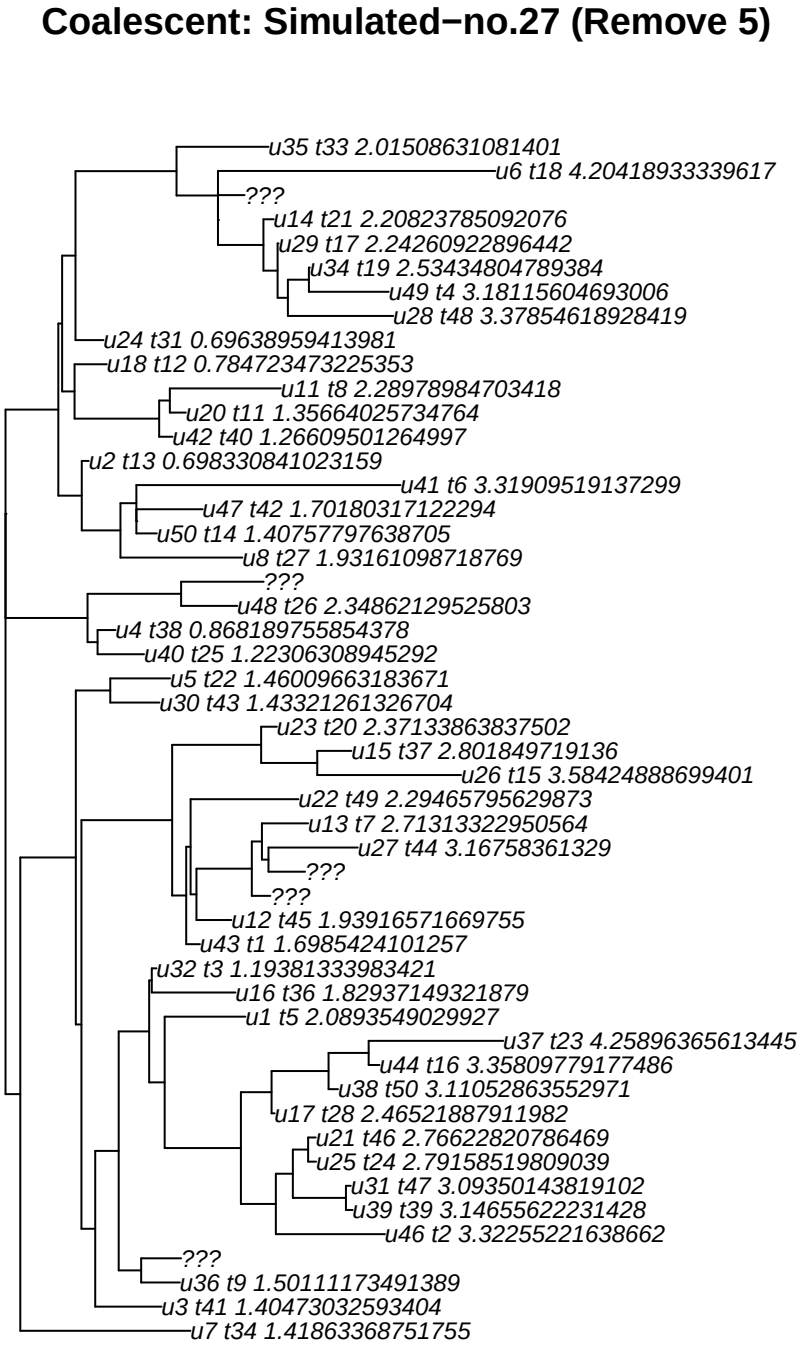

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.034959)
0
1
2
3
4
5
0.2395

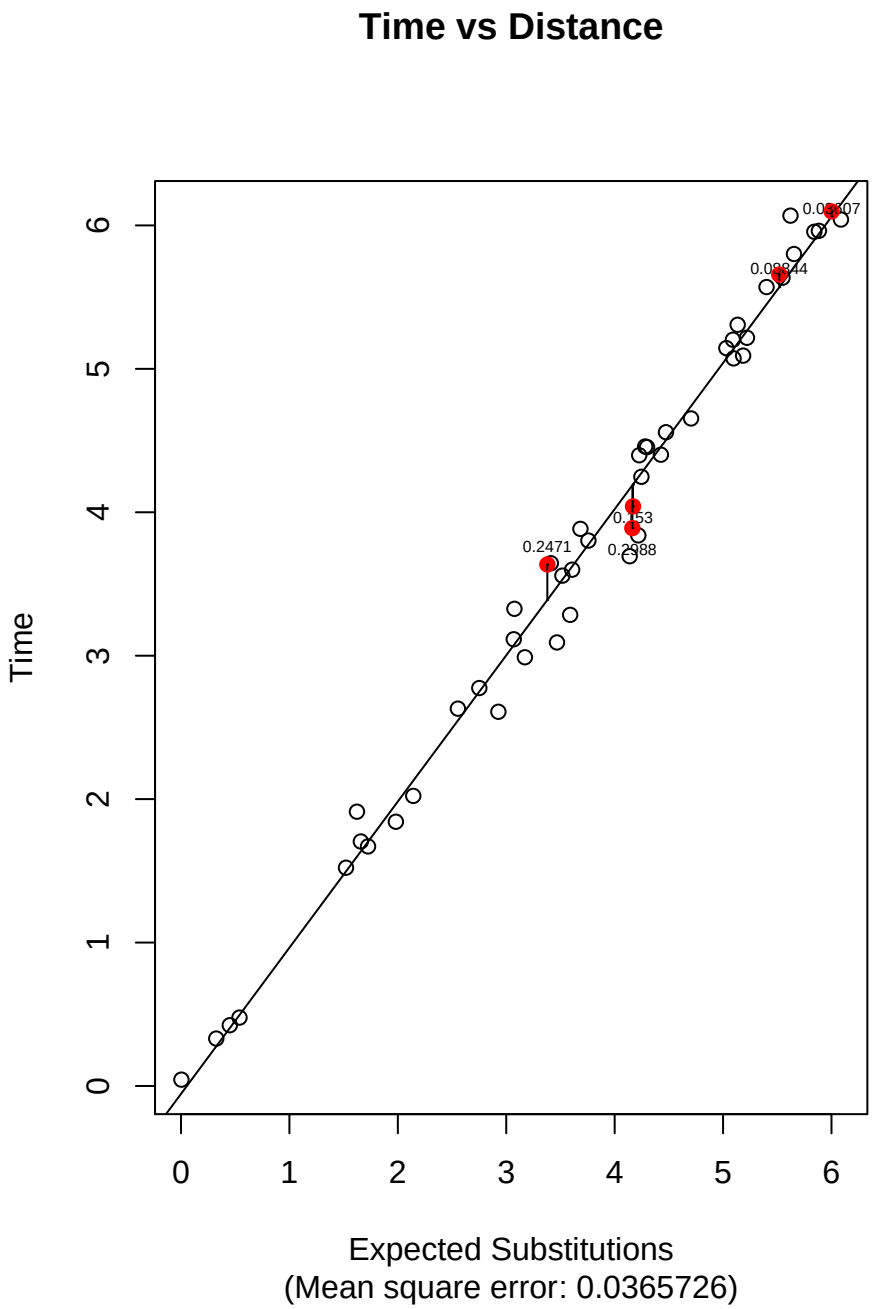

Coalescent: Simulated−no.25 (Remove 5)
u47 t28 0.0453844128157167
u37 t15 1.29106679080949
u18 t18 4.34699118285948
???
???
u20 t11 3.79784392768684
???
u46 t31 5.3877385913298
u22 t4 4.80981248813696
u48 t1 4.95978262287111
u14 t42 4.90815078739284
u12 t16 5.00235200896853
u41 t24 5.03599576220422
u3 t26 5.14491708093388
???
u33 t21 4.61431601900806
u44 t23 5.20204840217013
u49 t14 4.90038851754938
u26 t49 4.46540770042145
u27 t5 4.32230099482979
u36 t48 5.28394229374986
u50 t45 4.11616438278212
u42 t22 3.89949685263842
u8 t41 3.53139738993221
u21 t9 3.7922238421357
u10 t7 4.06890721840226
u29 t3 3.23332676222572
u34 t25 5.39578410034042
u28 t2 5.1583119801019
u35 t46 4.40433855245625
u6 t50 4.48187460475385
u23 t47 4.23138136125226
u7 t30 4.23820536971162
???
u5 t43 4.45169757173545
u4 t17 4.58567138193237
u13 t29 3.62375405282046
u40 t35 2.99048452021521
u2 t37 2.61555881271202
u16 t33 3.88293270107088
u30 t6 2.32134470137091
u24 t12 2.32809430759655
u38 t39 5.37257332267458
u11 t44 5.10418898910309
u39 t32 5.14834462135719
u45 t20 4.33172198847842
u25 t34 4.20487433889952
u1 t19 3.2307794093563
u19 t10 3.69771537727352
u15 t40 0.194655493379726

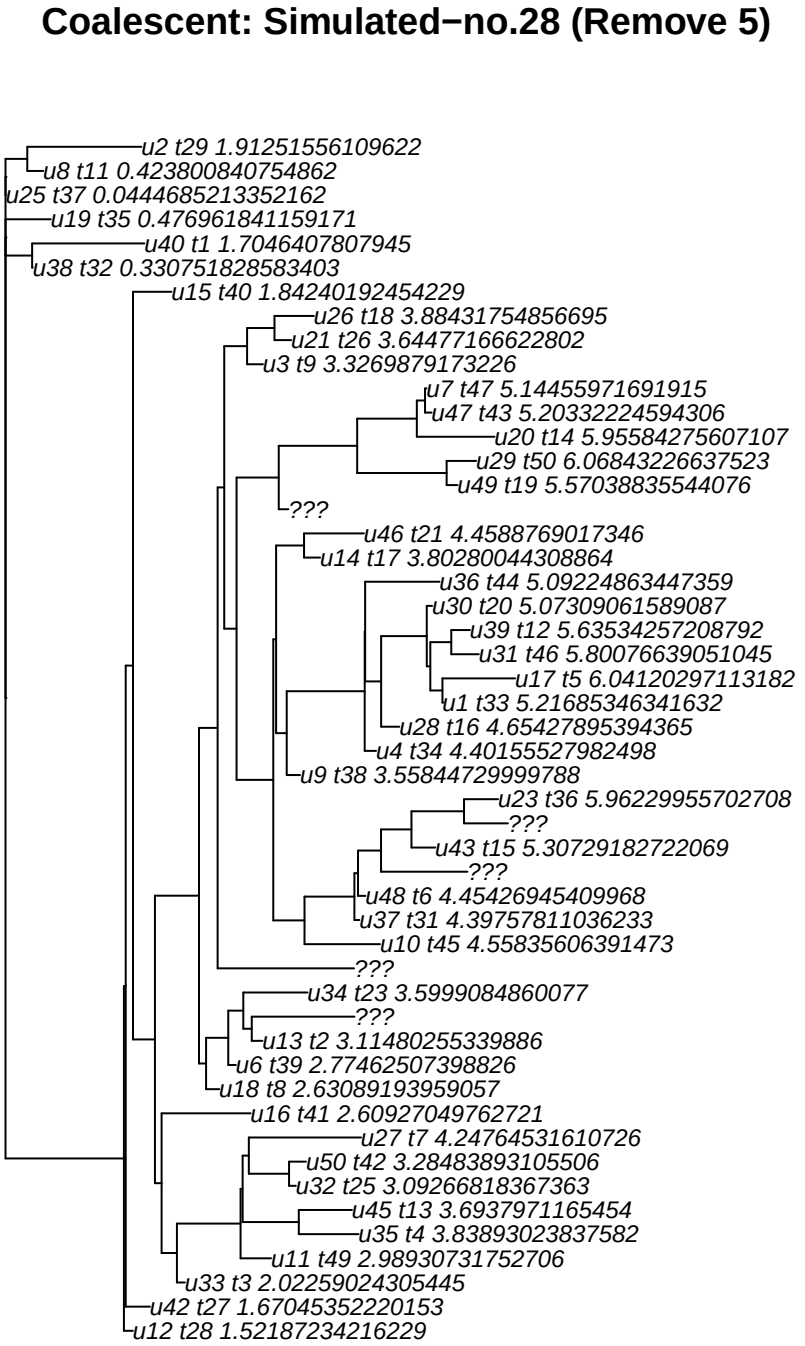

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0132724)
0.2072
0.1287
1
2
3
4
5

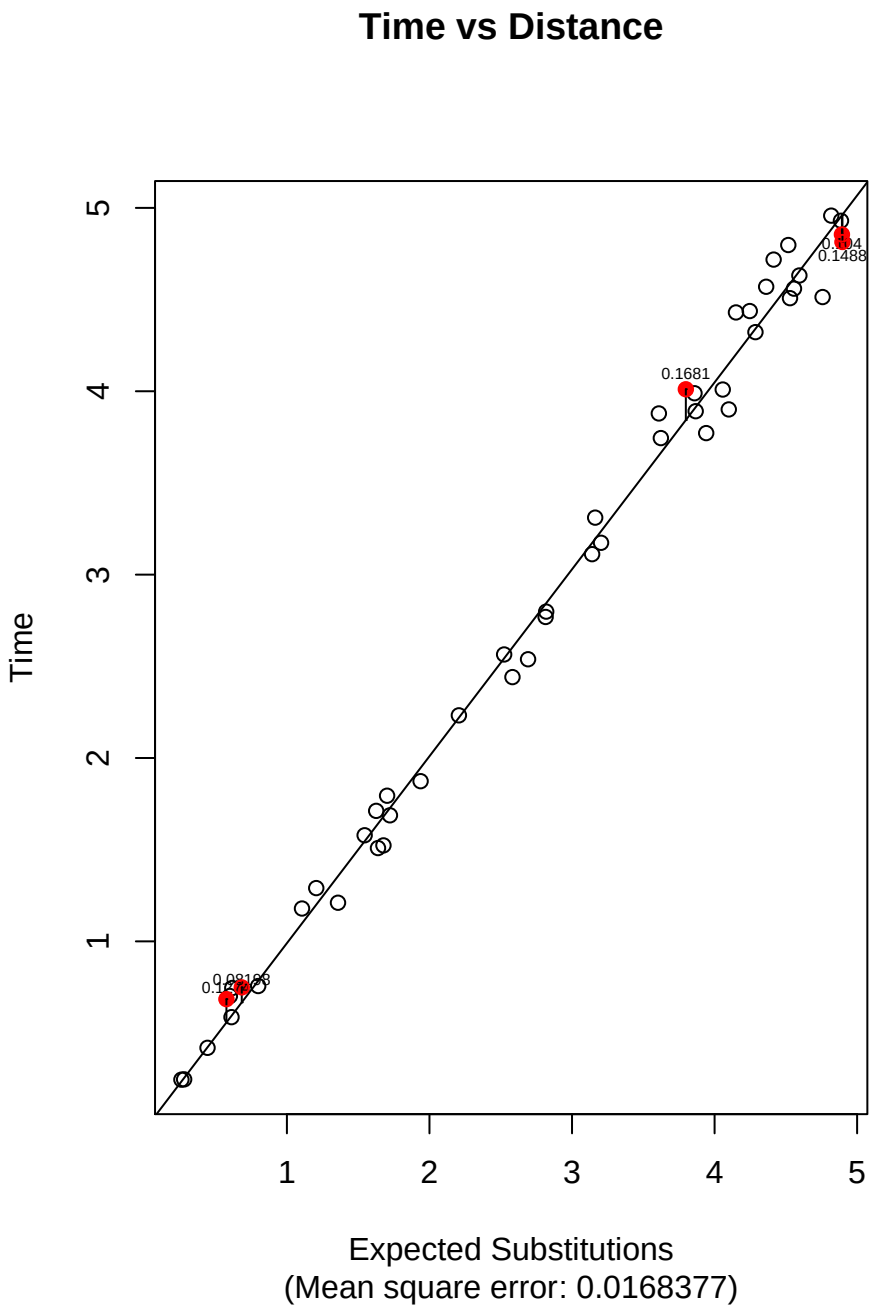

Coalescent: Simulated−no.26 (Remove 5)
u18 t11 1.63980716647977
u28 t35 0.73928140942816
u11 t16 1.13859823464246
u8 t14 1.48659984216981
u42 t47 1.70409143803197
u31 t5 3.63725682267548
u22 t29 3.39312426354307
u27 t31 3.77895049043733
u6 t10 3.33496395261503
u21 t19 3.31043345066509
u4 t37 4.66249860105559
u34 t40 4.79097185178893
u40 t6 4.68629732797483
u5 t22 3.05302307483042
???
u48 t49 3.94592167029954
u43 t15 3.70595913481323
u44 t17 3.97263994027401
u36 t12 4.12596303791262
u25 t9 4.52902493111203
u24 t7 4.89353354897227
u2 t44 4.49738921289091
???
u29 t50 4.44552331284834
u19 t36 4.25771728381933
u37 t24 4.22965436036498
u39 t46 4.33026958397365
???
u41 t18 3.49656405334823
u7 t34 3.50280874578405
u15 t13 4.54192735575258
u20 t25 4.85384166950702
u35 t27 4.95575492394541
u23 t38 4.3028885056099
u3 t39 4.28224605719679
u49 t4 3.62768092679688
u46 t3 3.32600716276519
u32 t23 3.98336288664288
u14 t2 4.39439224735392
u10 t1 3.73546753892639
???
u47 t20 4.42613998623689
u9 t42 2.92035798804383
u50 t26 3.03363937039342
u12 t45 2.13636587333919
u30 t48 1.95489070795881
u45 t28 1.73931735487987
???
u33 t8 1.00448027431038
u26 t21 0.352190593494031

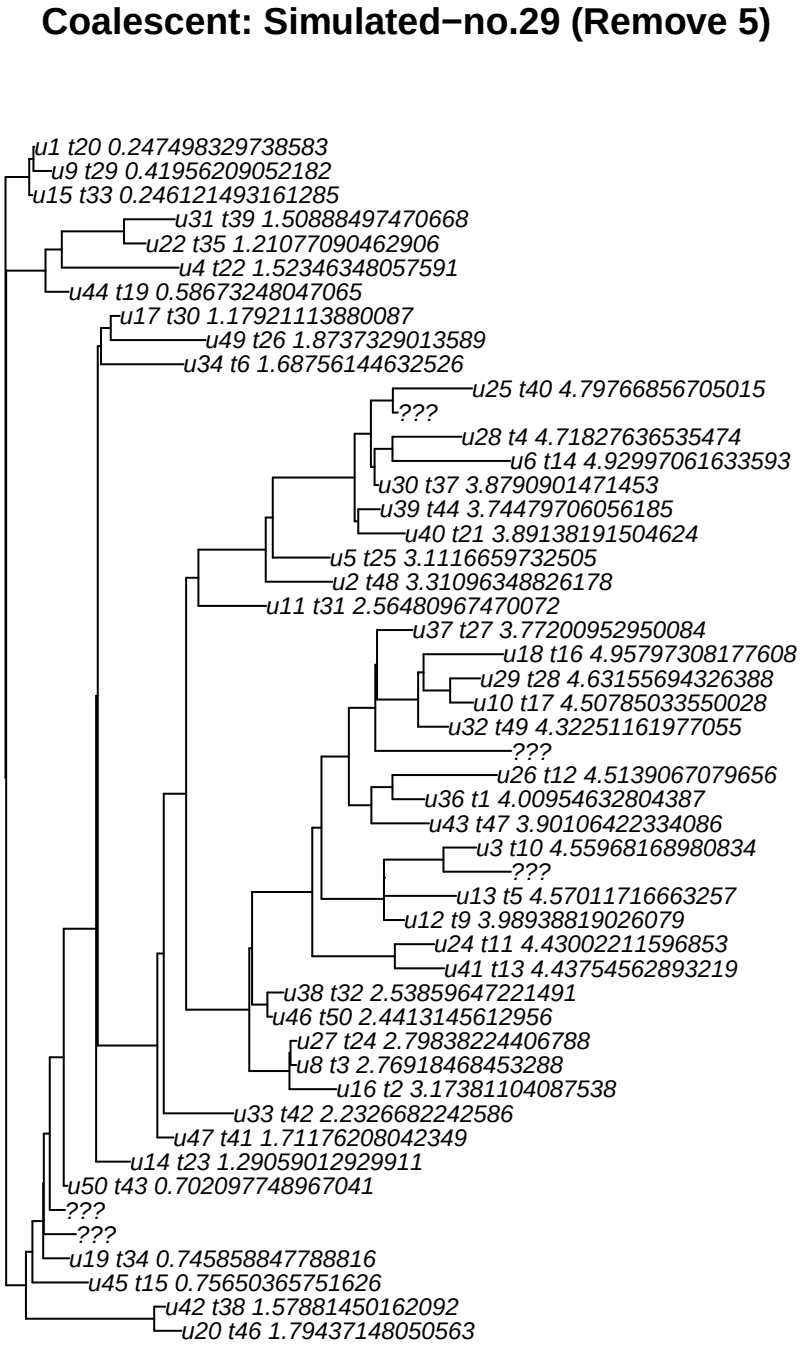

Time vs Distance
Time
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Expected Substitutions
(Mean square error: 0.00859295)


Coalescent: Simulated−no.27 (Remove 5)
u35 t33 2.01508631081401
u6 t18 4.20418933339617
???
u14 t21 2.20823785092076
u29 t17 2.24260922896442
u34 t19 2.53434804789384
u49 t4 3.18115604693006
u28 t48 3.37854618928419
u24 t31 0.69638959413981
u18 t12 0.784723473225353
u11 t8 2.28978984703418
u20 t11 1.35664025734764
u42 t40 1.26609501264997
u2 t13 0.698330841023159
u41 t6 3.31909519137299
u47 t42 1.70180317122294
u50 t14 1.40757797638705
u8 t27 1.93161098718769
???
u48 t26 2.34862129525803
u4 t38 0.868189755854378
u40 t25 1.22306308945292
u5 t22 1.46009663183671
u30 t43 1.43321261326704
u23 t20 2.37133863837502
u15 t37 2.801849719136
u26 t15 3.58424888699401
u22 t49 2.29465795629873
u13 t7 2.71313322950564
u27 t44 3.16758361329
???
???
u12 t45 1.93916571669755
u43 t1 1.6985424101257
u32 t3 1.19381333983421
u16 t36 1.82937149321879
u1 t5 2.0893549029927
u37 t23 4.25896365613445
u44 t16 3.35809779177486
u38 t50 3.11052863552971
u17 t28 2.46521887911982
u21 t46 2.76622820786469
u25 t24 2.79158519809039
u31 t47 3.09350143819102
u39 t39 3.14655622231428
u46 t2 3.32255221638662
???
u36 t9 1.50111173491389
u3 t41 1.40473032593404
u7 t34 1.41863368751755

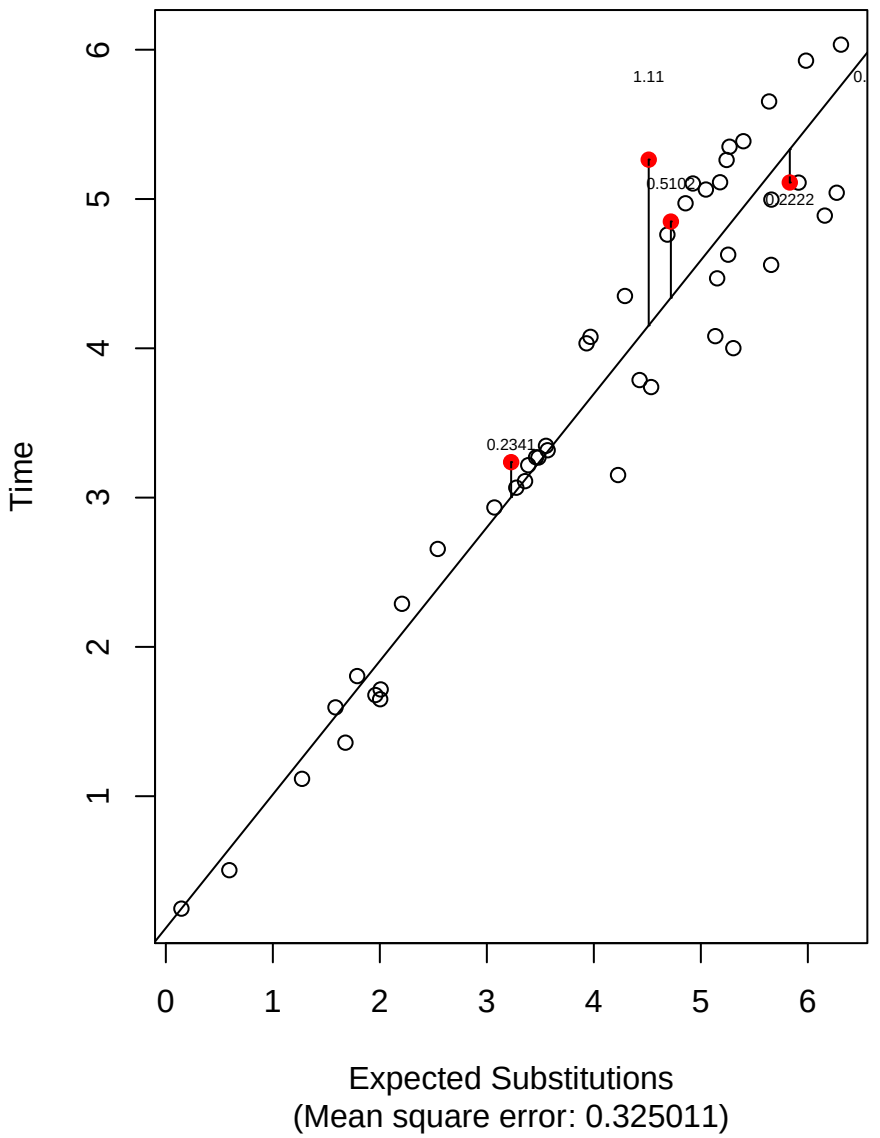

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0365726)
0
1
2
3
4
5
6
0.2471
0.2988


Coalescent: Simulated−no.28 (Remove 5)
u2 t29 1.91251556109622
u8 t11 0.423800840754862
u25 t37 0.0444685213352162
u19 t35 0.476961841159171
u40 t1 1.7046407807945
u38 t32 0.330751828583403
u15 t40 1.84240192454229
u26 t18 3.88431754856695
u21 t26 3.64477166622802
u3 t9 3.3269879173226
u7 t47 5.14455971691915
u47 t43 5.20332224594306
u20 t14 5.95584275607107
u29 t50 6.06843226637523
u49 t19 5.57038835544076
???
u46 t21 4.4588769017346
u14 t17 3.80280044308864
u36 t44 5.09224863447359
u30 t20 5.07309061589087
u39 t12 5.63534257208792
u31 t46 5.80076639051045
u17 t5 6.04120297113182
u1 t33 5.21685346341632
u28 t16 4.65427895394365
u4 t34 4.40155527982498
u9 t38 3.55844729999788
u23 t36 5.96229955702708
???
u43 t15 5.30729182722069
???
u48 t6 4.45426945409968
u37 t31 4.39757811036233
u10 t45 4.55835606391473
???
u34 t23 3.5999084860077
???
u13 t2 3.11480255339886
u6 t39 2.77462507398826
u18 t8 2.63089193959057
u16 t41 2.60927049762721
u27 t7 4.24764531610726
u50 t42 3.28483893105506
u32 t25 3.09266818367363
u45 t13 3.6937971165454
u35 t4 3.83893023837582
u11 t49 2.98930731752706
u33 t3 2.02259024305445
u42 t27 1.67045352220153
u12 t28 1.52187234216229

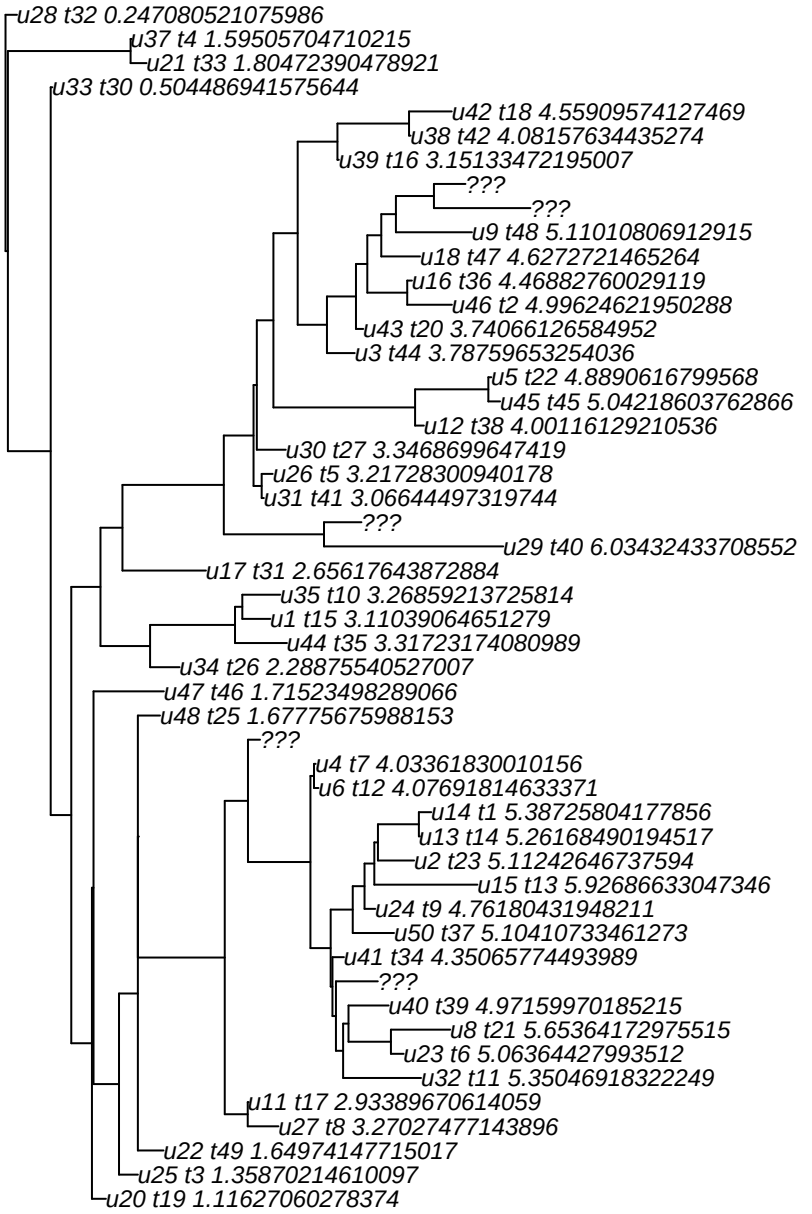

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0168377)
1
2
3
4
5
0.1681
0.1488

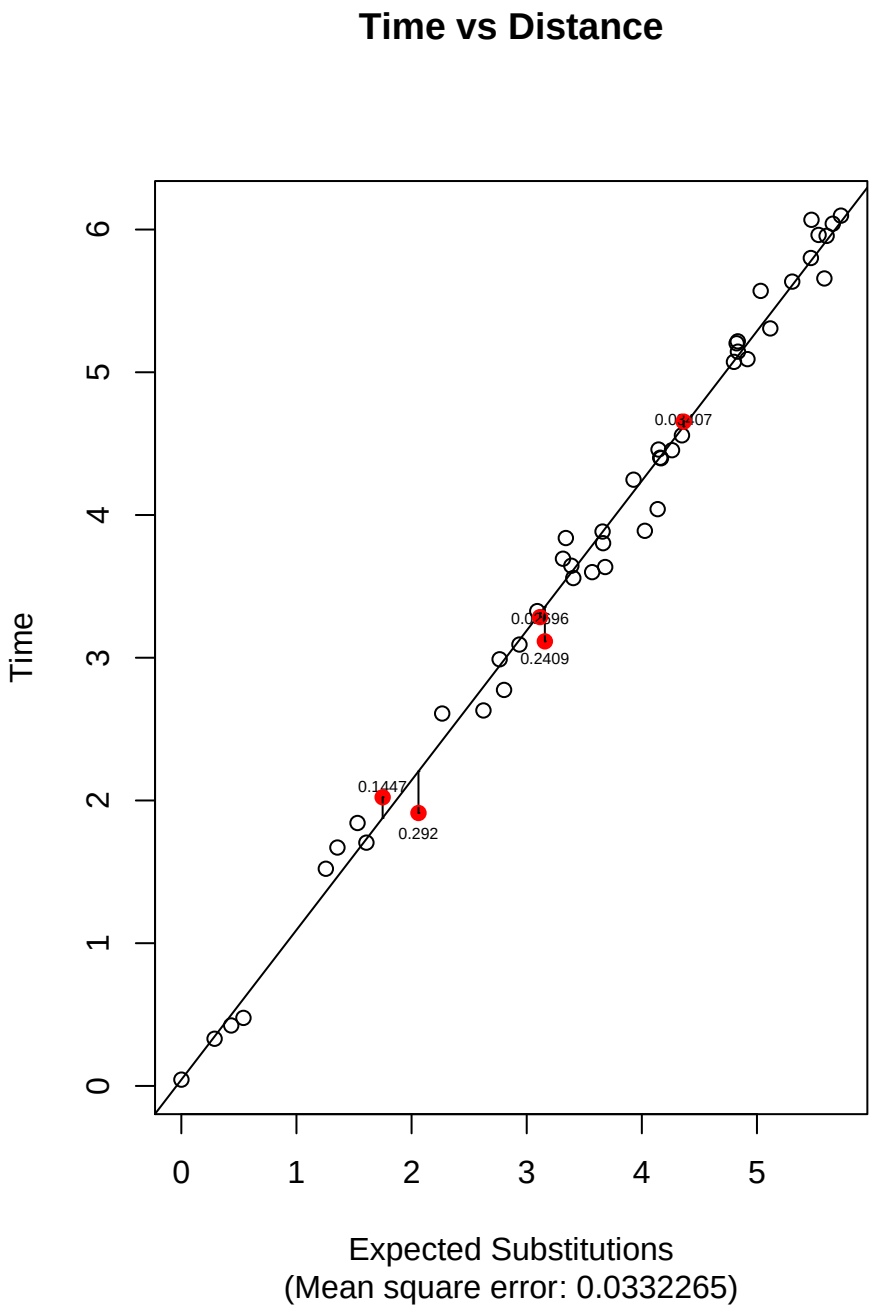

Coalescent: Simulated−no.29 (Remove 5)
u1 t20 0.247498329738583
u9 t29 0.41956209052182
u15 t33 0.246121493161285
u31 t39 1.50888497470668
u22 t35 1.21077090462906
u4 t22 1.52346348057591
u44 t19 0.58673248047065
u17 t30 1.17921113880087
u49 t26 1.8737329013589
u34 t6 1.68756144632526
u25 t40 4.79766856705015
???
u28 t4 4.71827636535474
u6 t14 4.92997061633593
u30 t37 3.8790901471453
u39 t44 3.74479706056185
u40 t21 3.89138191504624
u5 t25 3.1116659732505
u2 t48 3.31096348826178
u11 t31 2.56480967470072
u37 t27 3.77200952950084
u18 t16 4.95797308177608
u29 t28 4.63155694326388
u10 t17 4.50785033550028
u32 t49 4.32251161977055
???
u26 t12 4.5139067079656
u36 t1 4.00954632804387
u43 t47 3.90106422334086
u3 t10 4.55968168980834
???
u13 t5 4.57011716663257
u12 t9 3.98938819026079
u24 t11 4.43002211596853
u41 t13 4.43754562893219
u38 t32 2.53859647221491
u46 t50 2.4413145612956
u27 t24 2.79838224406788
u8 t3 2.76918468453288
u16 t2 3.17381104087538
u33 t42 2.2326682242586
u47 t41 1.71176208042349
u14 t23 1.29059012929911
u50 t43 0.702097748967041
???
???
u19 t34 0.745858847788816
u45 t15 0.75650365751626
u42 t38 1.57881450162092
u20 t46 1.79437148050563

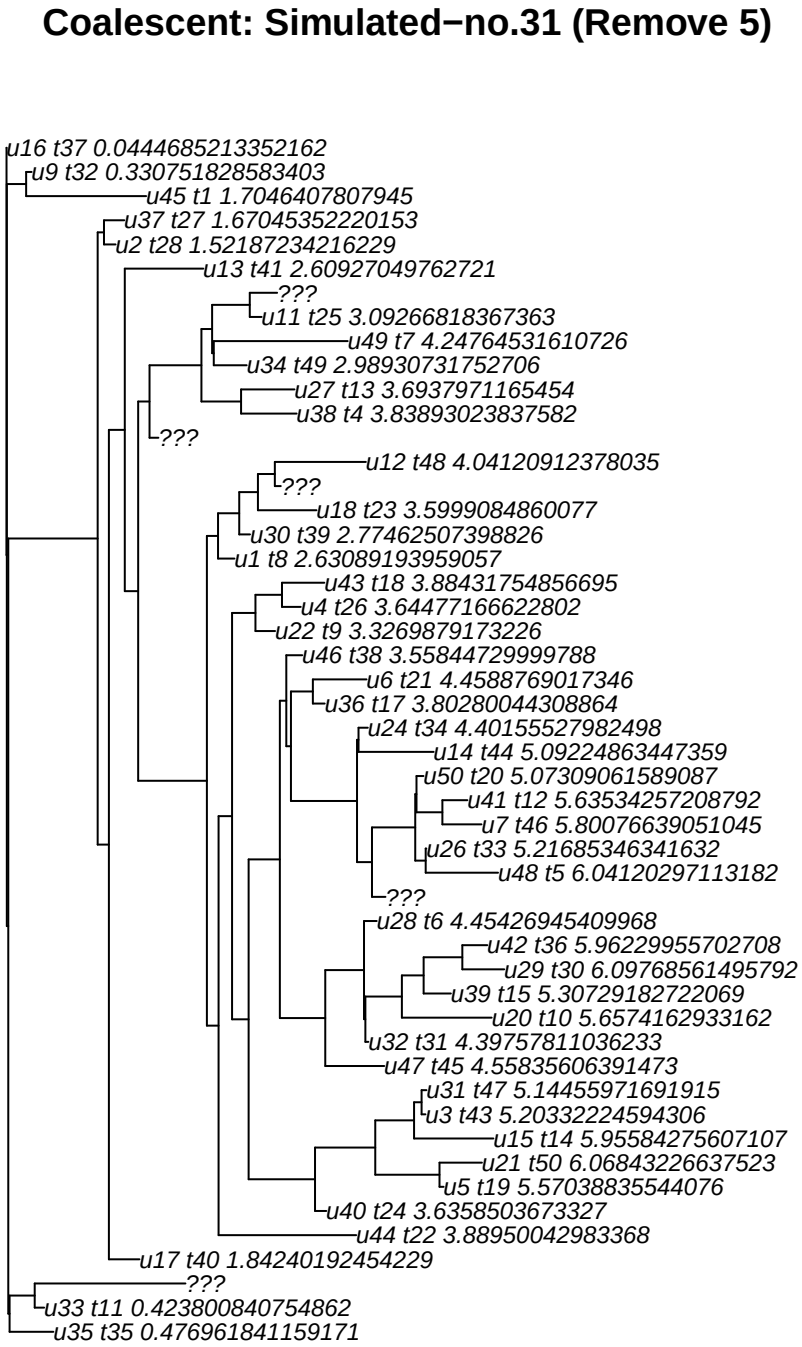
Time vs Distance

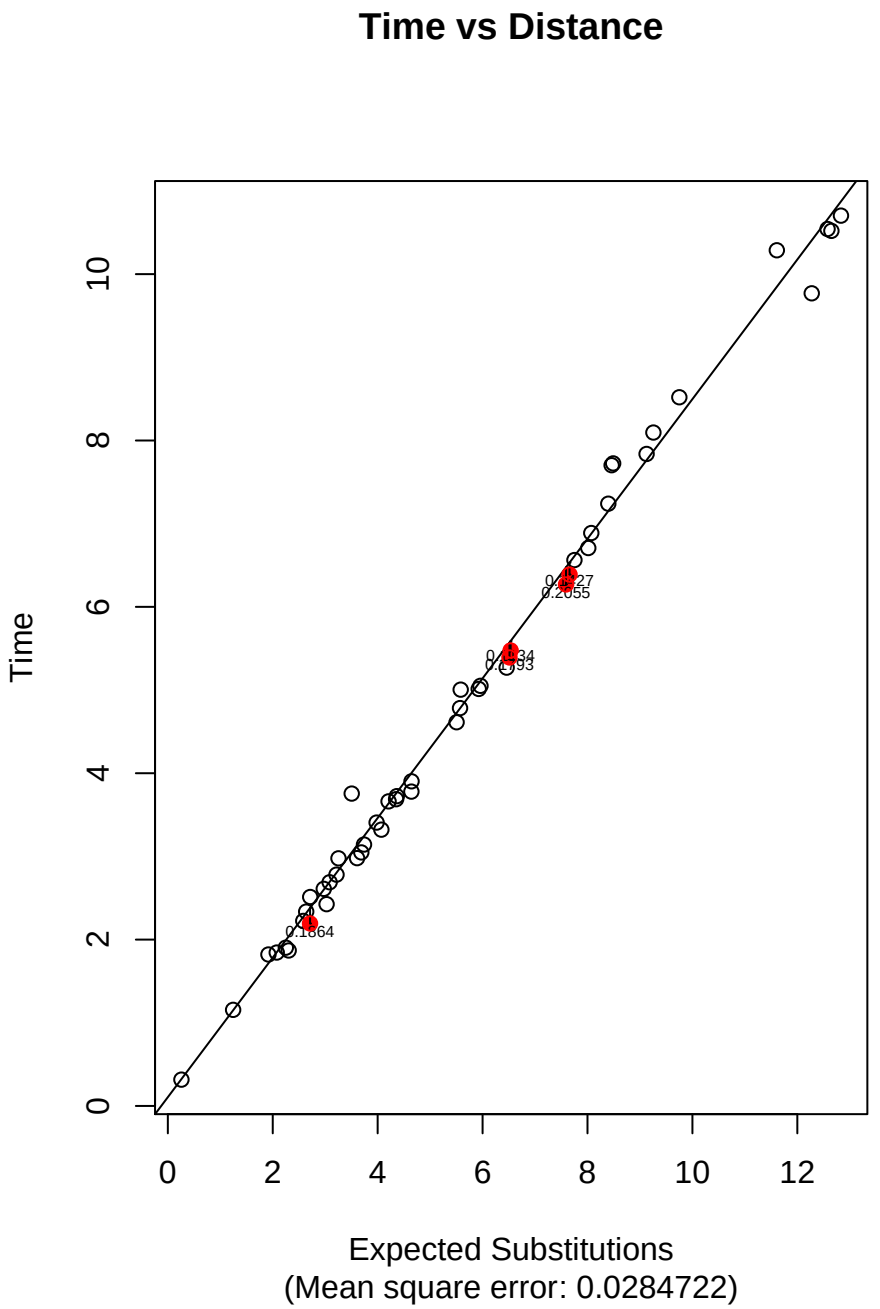


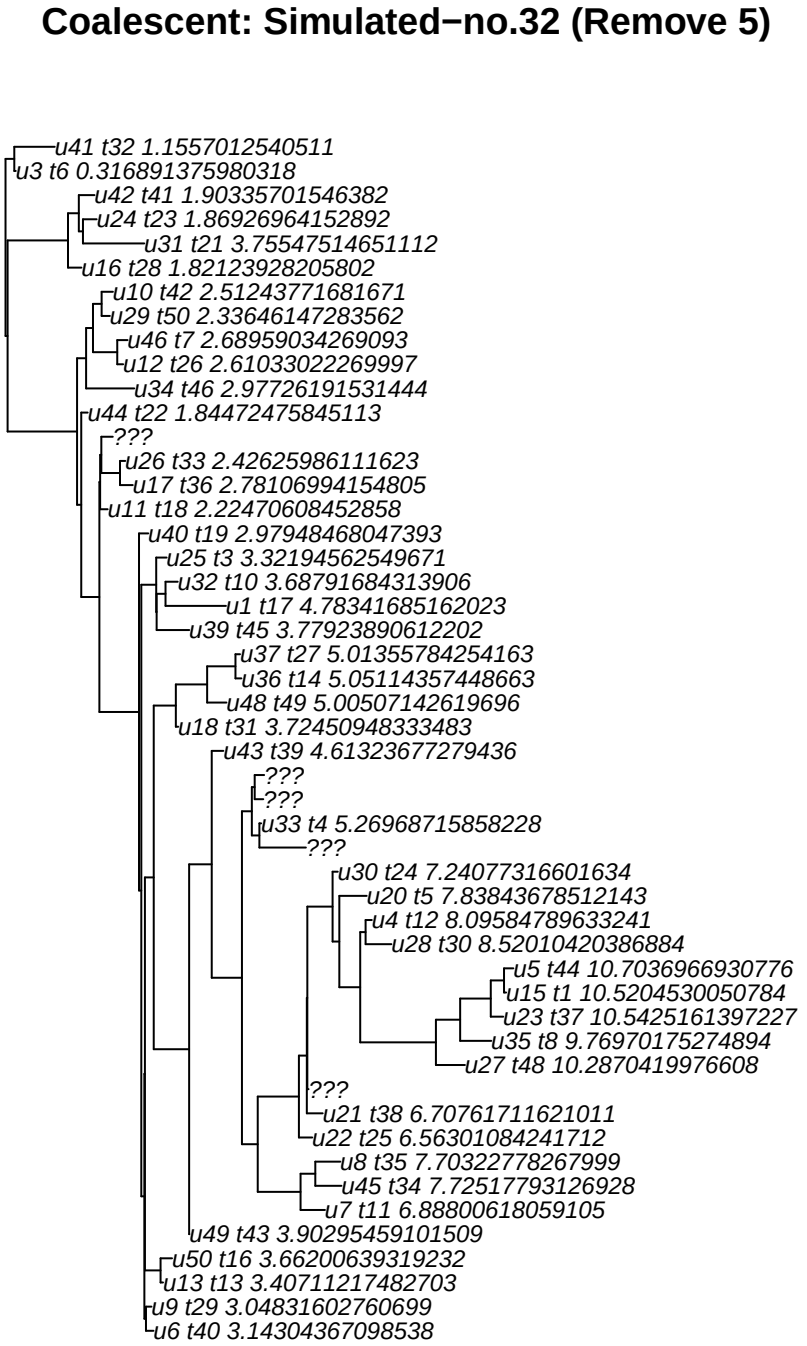
Coalescent: Simulated−no.30 (Remove 5)

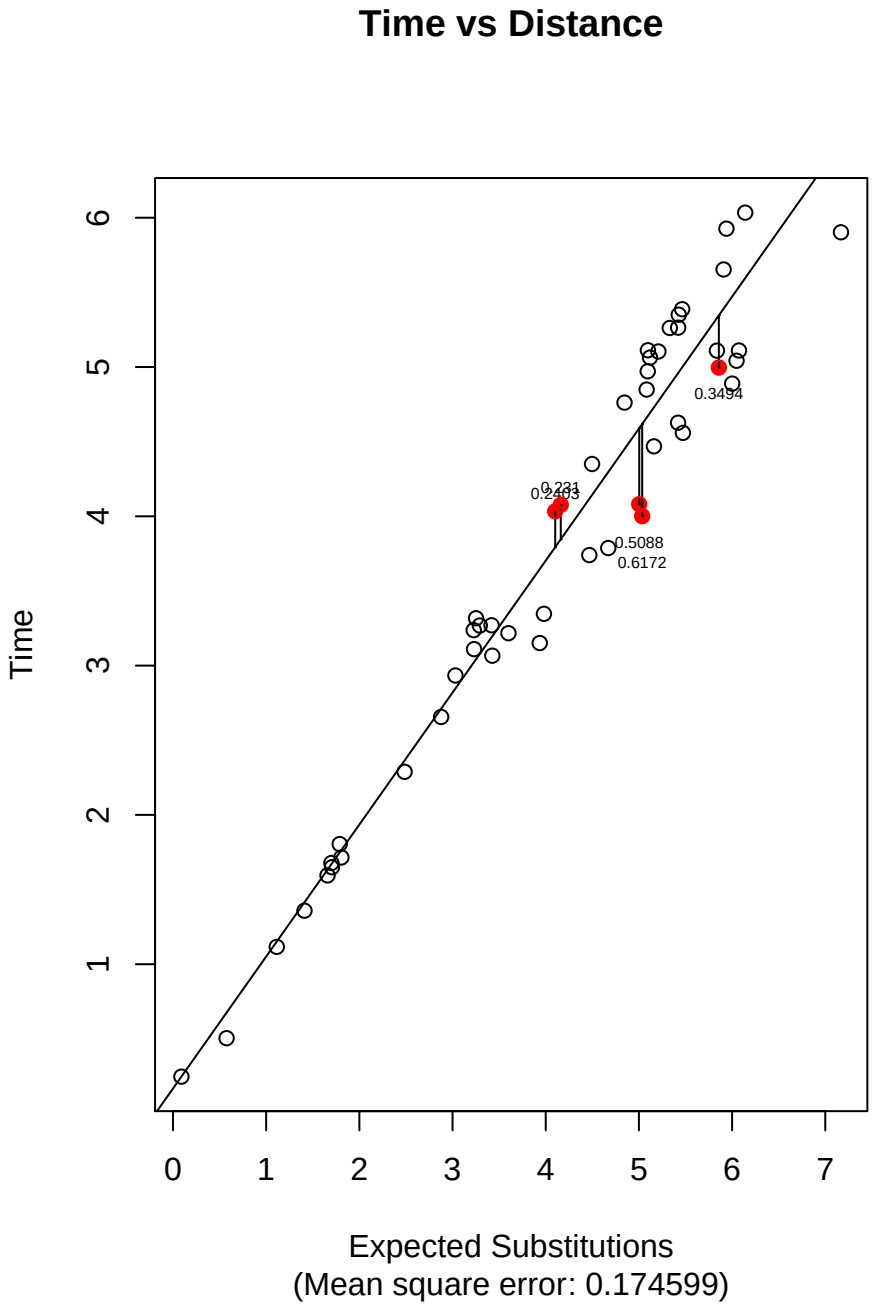


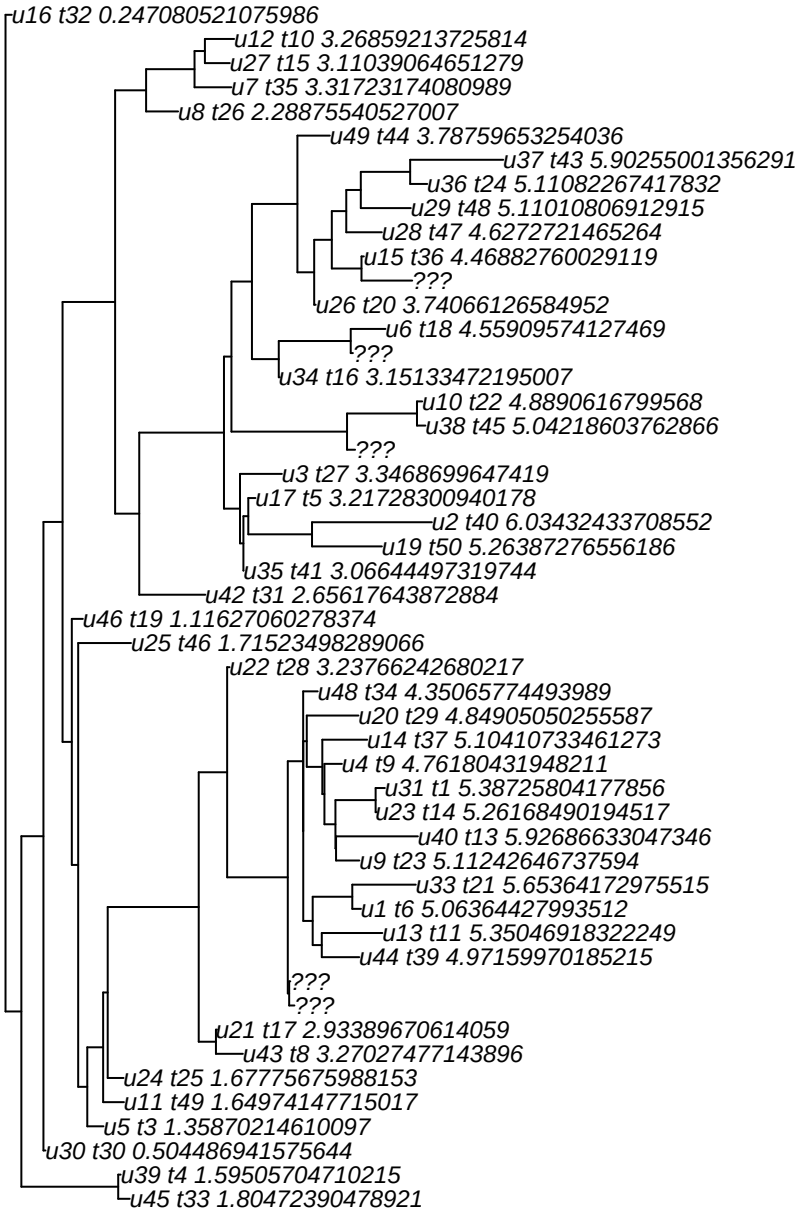

Time vs Distance
Time
0
1
2
3
4
5
6
0.1447
0.292
0.2409
Expected Substitutions
(Mean square error: 0.0332265)

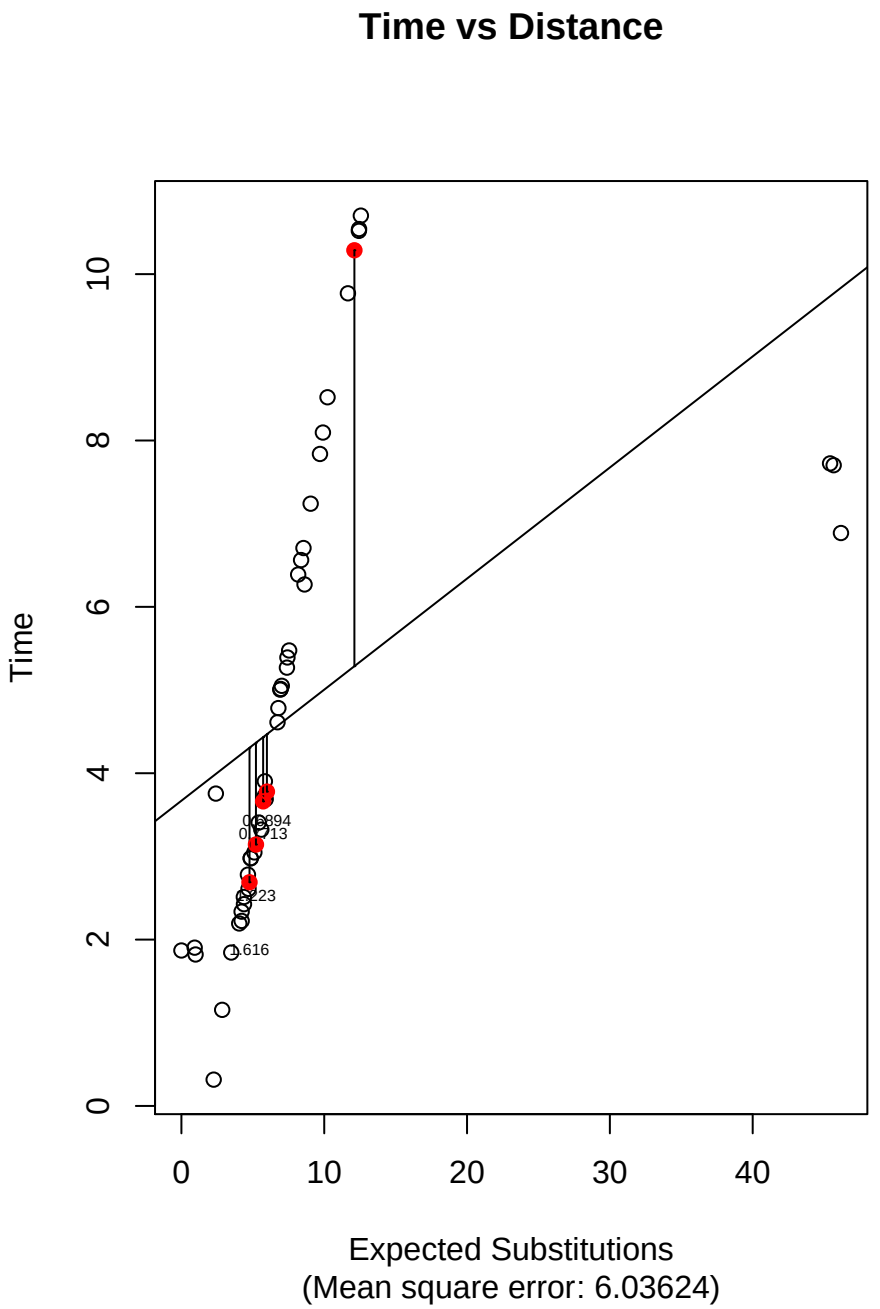

Coalescent: Simulated−no.31 (Remove 5)
u16 t37 0.0444685213352162
u9 t32 0.330751828583403
u45 t1 1.7046407807945
u37 t27 1.67045352220153
u2 t28 1.52187234216229
u13 t41 2.60927049762721
???
u11 t25 3.09266818367363
u49 t7 4.24764531610726
u34 t49 2.98930731752706
u27 t13 3.6937971165454
u38 t4 3.83893023837582
???
u12 t48 4.04120912378035
???
u18 t23 3.5999084860077
u30 t39 2.77462507398826
u1 t8 2.63089193959057
u43 t18 3.88431754856695
u4 t26 3.64477166622802
u22 t9 3.3269879173226
u46 t38 3.55844729999788
u6 t21 4.4588769017346
u36 t17 3.80280044308864
u24 t34 4.40155527982498
u14 t44 5.09224863447359
u50 t20 5.07309061589087
u41 t12 5.63534257208792
u7 t46 5.80076639051045
u26 t33 5.21685346341632
u48 t5 6.04120297113182
???
u28 t6 4.45426945409968
u42 t36 5.96229955702708
u29 t30 6.09768561495792
u39 t15 5.30729182722069
u20 t10 5.6574162933162
u32 t31 4.39757811036233
u47 t45 4.55835606391473
u31 t47 5.14455971691915
u3 t43 5.20332224594306
u15 t14 5.95584275607107
u21 t50 6.06843226637523
u5 t19 5.57038835544076
u40 t24 3.6358503673327
u44 t22 3.88950042983368
u17 t40 1.84240192454229
???
u33 t11 0.423800840754862
u35 t35 0.476961841159171

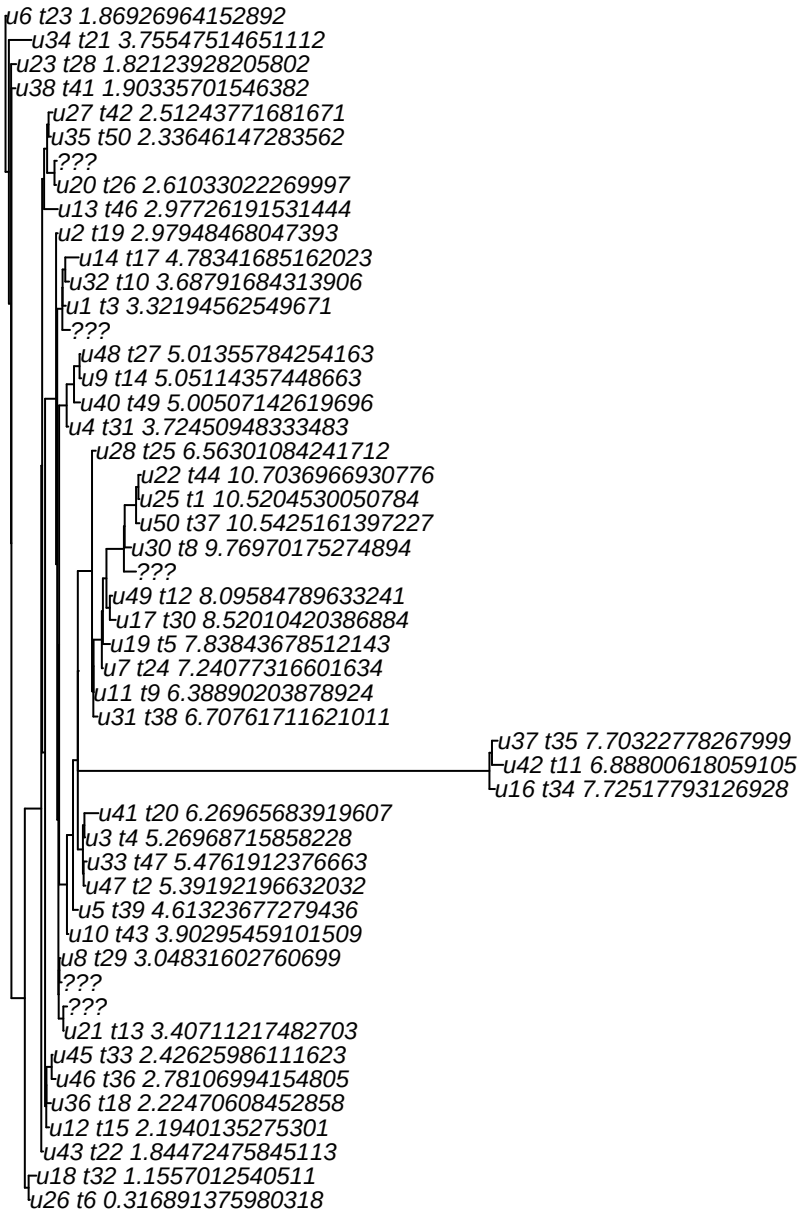

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0284722)
0
2
4
6
8
10
12
0.1864
0.2055

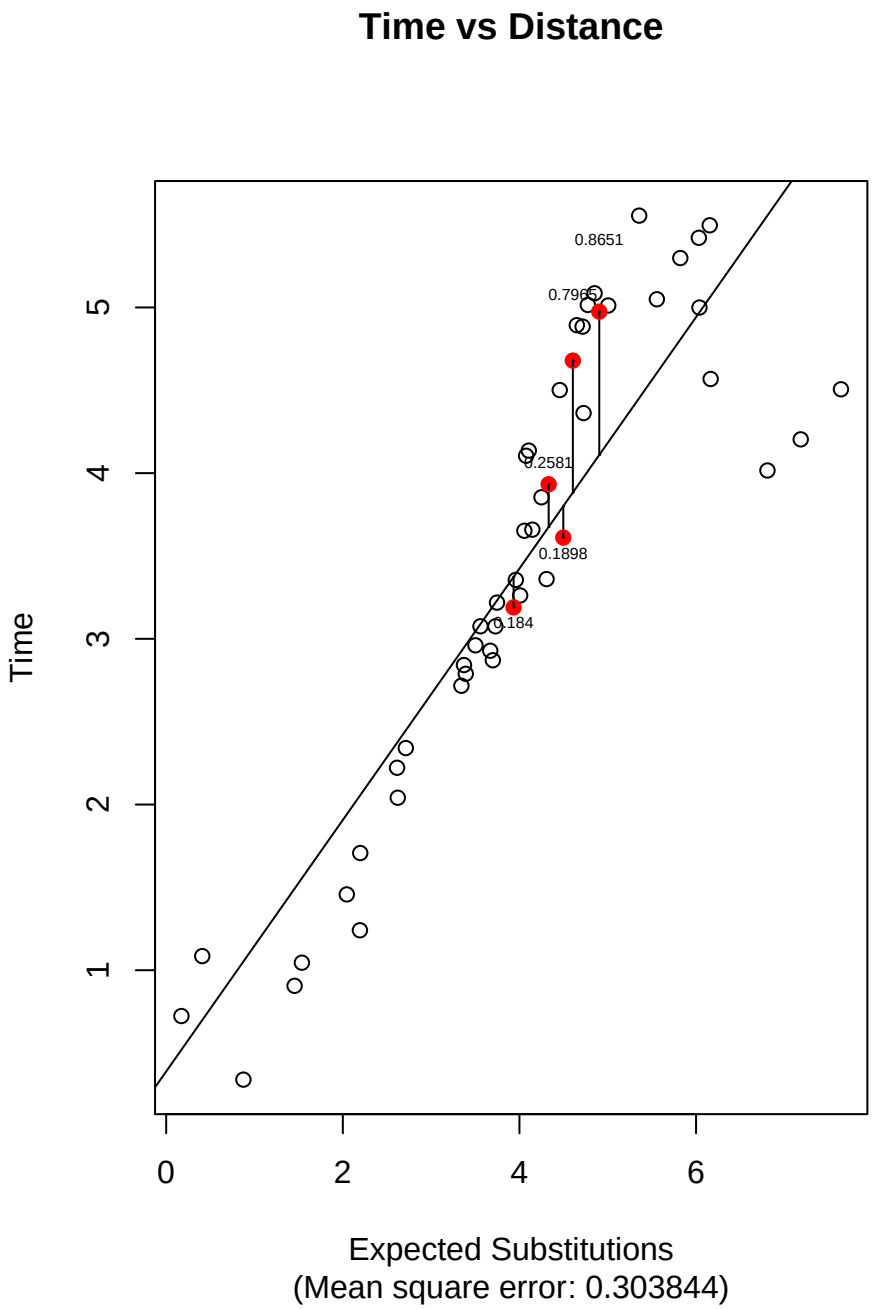

Coalescent: Simulated−no.32 (Remove 5)
u41 t32 1.1557012540511
u3 t6 0.316891375980318
u42 t41 1.90335701546382
u24 t23 1.86926964152892
u31 t21 3.75547514651112
u16 t28 1.82123928205802
u10 t42 2.51243771681671
u29 t50 2.33646147283562
u46 t7 2.68959034269093
u12 t26 2.61033022269997
u34 t46 2.97726191531444
u44 t22 1.84472475845113
???
u26 t33 2.42625986111623
u17 t36 2.78106994154805
u11 t18 2.22470608452858
u40 t19 2.97948468047393
u25 t3 3.32194562549671
u32 t10 3.68791684313906
u1 t17 4.78341685162023
u39 t45 3.77923890612202
u37 t27 5.01355784254163
u36 t14 5.05114357448663
u48 t49 5.00507142619696
u18 t31 3.72450948333483
u43 t39 4.61323677279436
???
???
u33 t4 5.26968715858228
???
u30 t24 7.24077316601634
u20 t5 7.83843678512143
u4 t12 8.09584789633241
u28 t30 8.52010420386884
u5 t44 10.7036966930776
u15 t1 10.5204530050784
u23 t37 10.5425161397227
u35 t8 9.76970175274894
u27 t48 10.2870419976608
???
u21 t38 6.70761711621011
u22 t25 6.56301084241712
u8 t35 7.70322778267999
u45 t34 7.72517793126928
u7 t11 6.88800618059105
u49 t43 3.90295459101509
u50 t16 3.66200639319232
u13 t13 3.40711217482703
u9 t29 3.04831602760699
u6 t40 3.14304367098538

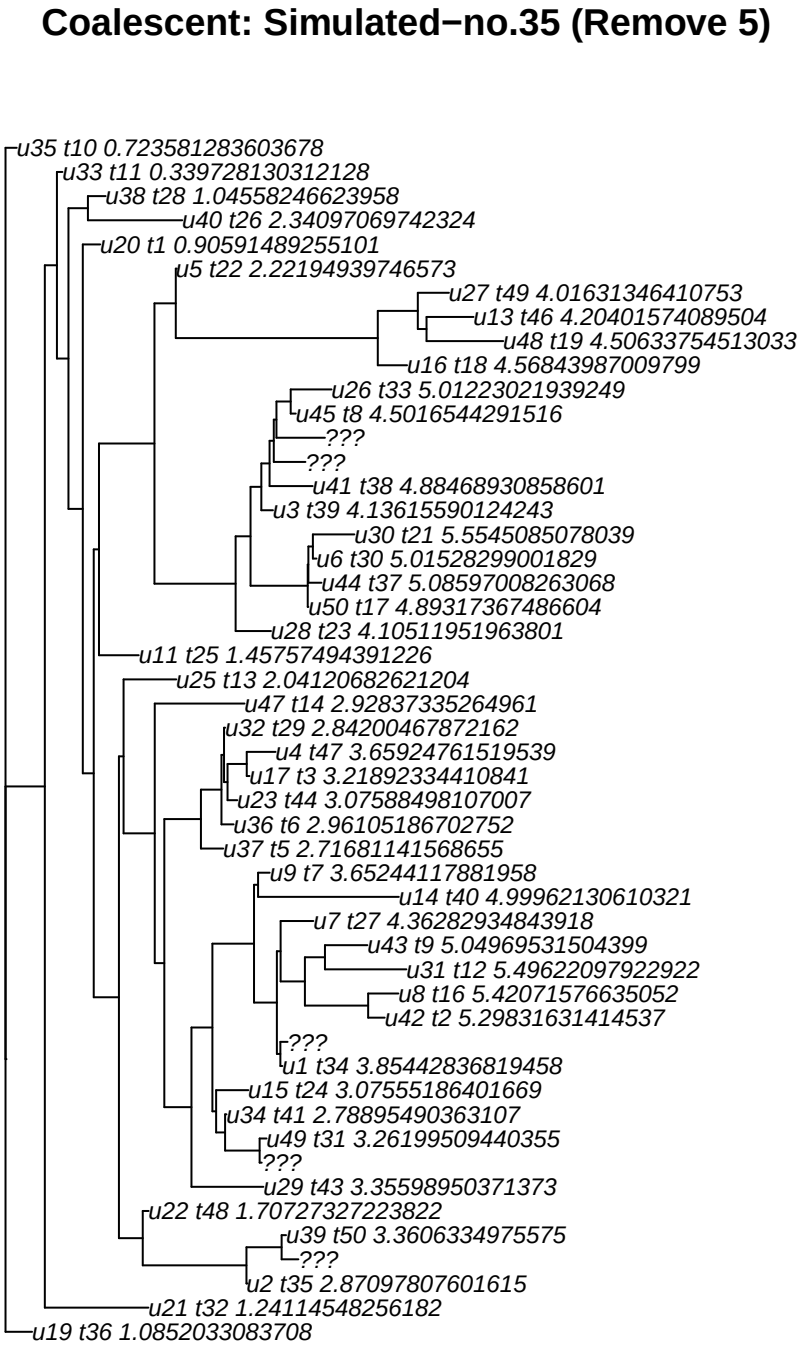

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.174599)
0.3494
0.5088
0.6172

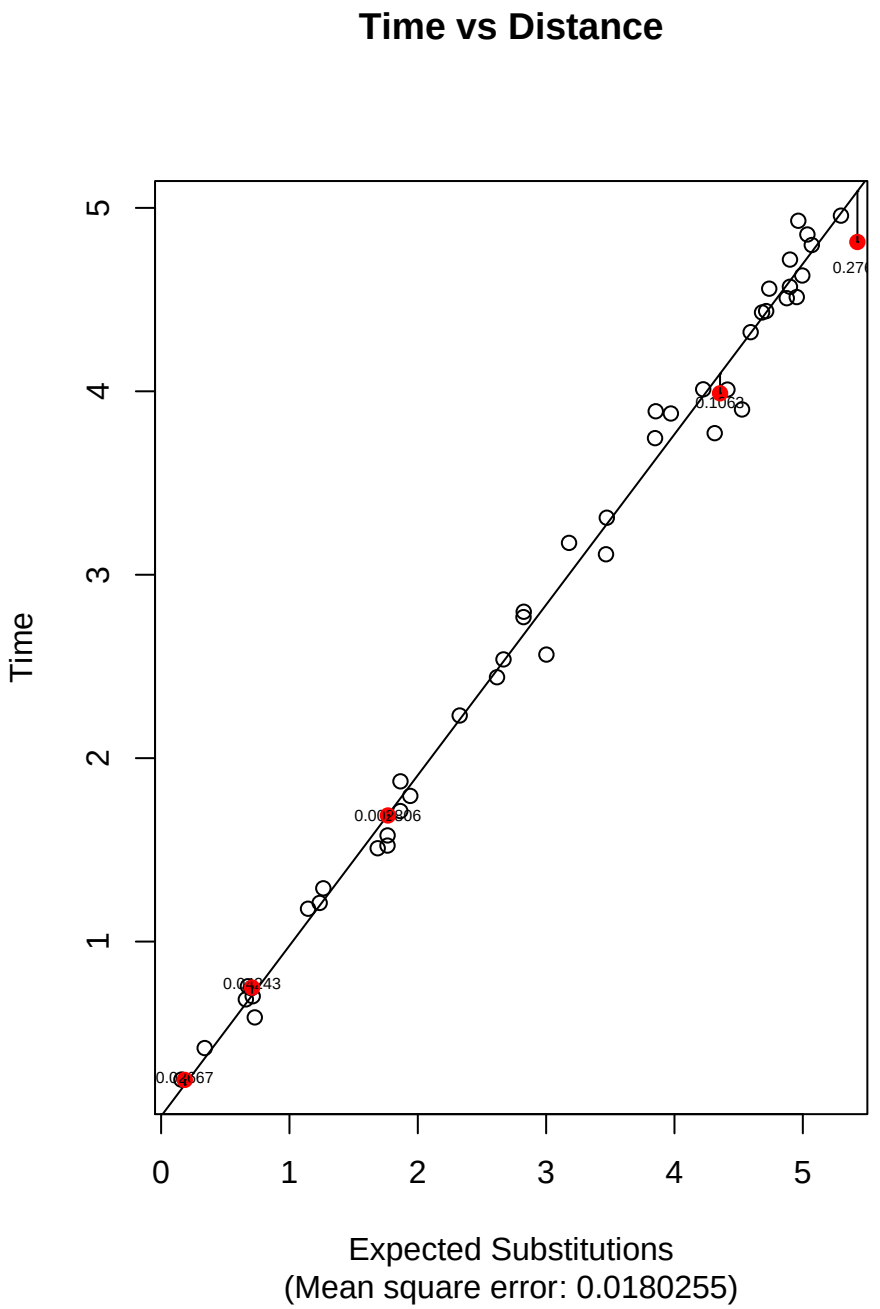

Coalescent: Simulated−no.33 (Remove 5)
u16 t32 0.247080521075986
u12 t10 3.26859213725814
u27 t15 3.11039064651279
u7 t35 3.31723174080989
u8 t26 2.28875540527007
u49 t44 3.78759653254036
u37 t43 5.90255001356291
u36 t24 5.11082267417832
u29 t48 5.11010806912915
u28 t47 4.6272721465264
u15 t36 4.46882760029119
???
u26 t20 3.74066126584952
u6 t18 4.55909574127469
???
u34 t16 3.15133472195007
u10 t22 4.8890616799568
u38 t45 5.04218603762866
???
u3 t27 3.3468699647419
u17 t5 3.21728300940178
u2 t40 6.03432433708552
u19 t50 5.26387276556186
u35 t41 3.06644497319744
u42 t31 2.65617643872884
u46 t19 1.11627060278374
u25 t46 1.71523498289066
u22 t28 3.23766242680217
u48 t34 4.35065774493989
u20 t29 4.84905050255587
u14 t37 5.10410733461273
u4 t9 4.76180431948211
u31 t1 5.38725804177856
u23 t14 5.26168490194517
u40 t13 5.92686633047346
u9 t23 5.11242646737594
u33 t21 5.65364172975515
u1 t6 5.06364427993512
u13 t11 5.35046918322249
u44 t39 4.97159970185215
???
???
u21 t17 2.93389670614059
u43 t8 3.27027477143896
u24 t25 1.67775675988153
u11 t49 1.64974147715017
u5 t3 1.35870214610097
u30 t30 0.504486941575644
u39 t4 1.59505704710215
u45 t33 1.80472390478921

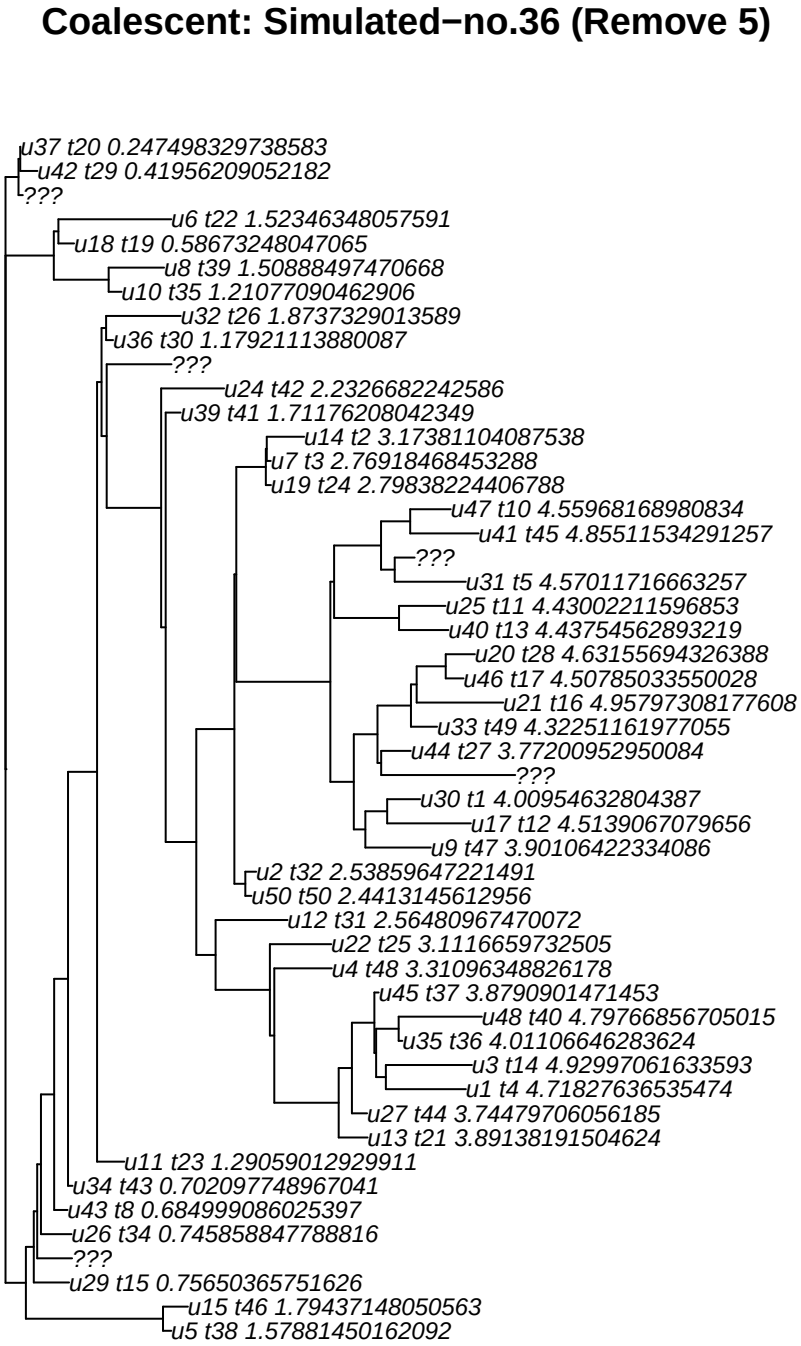

Time vs Distance
Time
0
2
4
6
8
10
0
10
20
30
40
Expected Substitutions
(Mean square error: 6.03624)

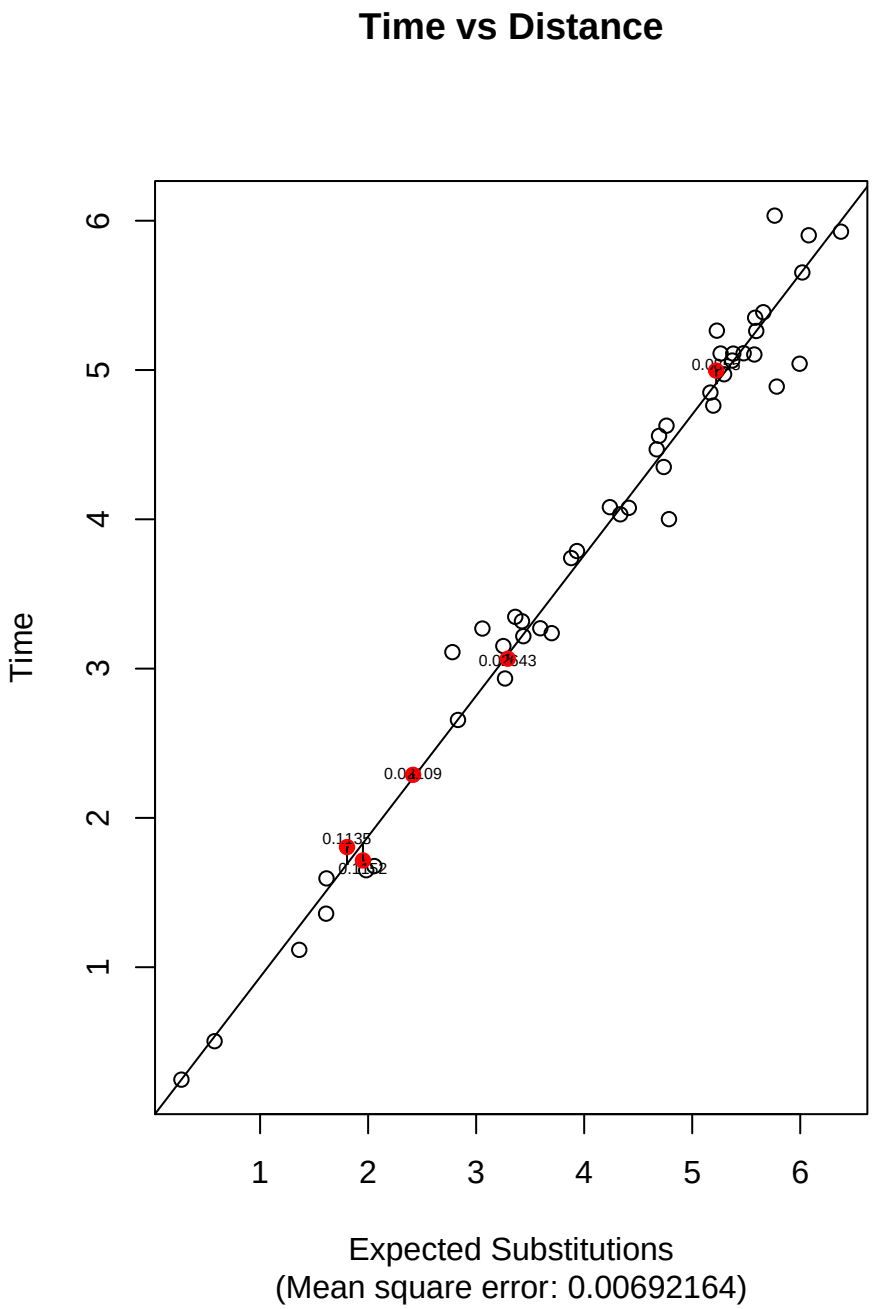

Coalescent: Simulated−no.34 (Remove 5)
u6 t23 1.86926964152892
u34 t21 3.75547514651112
u23 t28 1.82123928205802
u38 t41 1.90335701546382
u27 t42 2.51243771681671
u35 t50 2.33646147283562
???
u20 t26 2.61033022269997
u13 t46 2.97726191531444
u2 t19 2.97948468047393
u14 t17 4.78341685162023
u32 t10 3.68791684313906
u1 t3 3.32194562549671
???
u48 t27 5.01355784254163
u9 t14 5.05114357448663
u40 t49 5.00507142619696
u4 t31 3.72450948333483
u28 t25 6.56301084241712
u22 t44 10.7036966930776
u25 t1 10.5204530050784
u50 t37 10.5425161397227
u30 t8 9.76970175274894
???
u49 t12 8.09584789633241
u17 t30 8.52010420386884
u19 t5 7.83843678512143
u7 t24 7.24077316601634
u11 t9 6.38890203878924
u31 t38 6.70761711621011
u37 t35 7.70322778267999
u42 t11 6.88800618059105
u16 t34 7.72517793126928
u41 t20 6.26965683919607
u3 t4 5.26968715858228
u33 t47 5.4761912376663
u47 t2 5.39192196632032
u5 t39 4.61323677279436
u10 t43 3.90295459101509
u8 t29 3.04831602760699
???
???
u21 t13 3.40711217482703
u45 t33 2.42625986111623
u46 t36 2.78106994154805
u36 t18 2.22470608452858
u12 t15 2.1940135275301
u43 t22 1.84472475845113
u18 t32 1.1557012540511
u26 t6 0.316891375980318

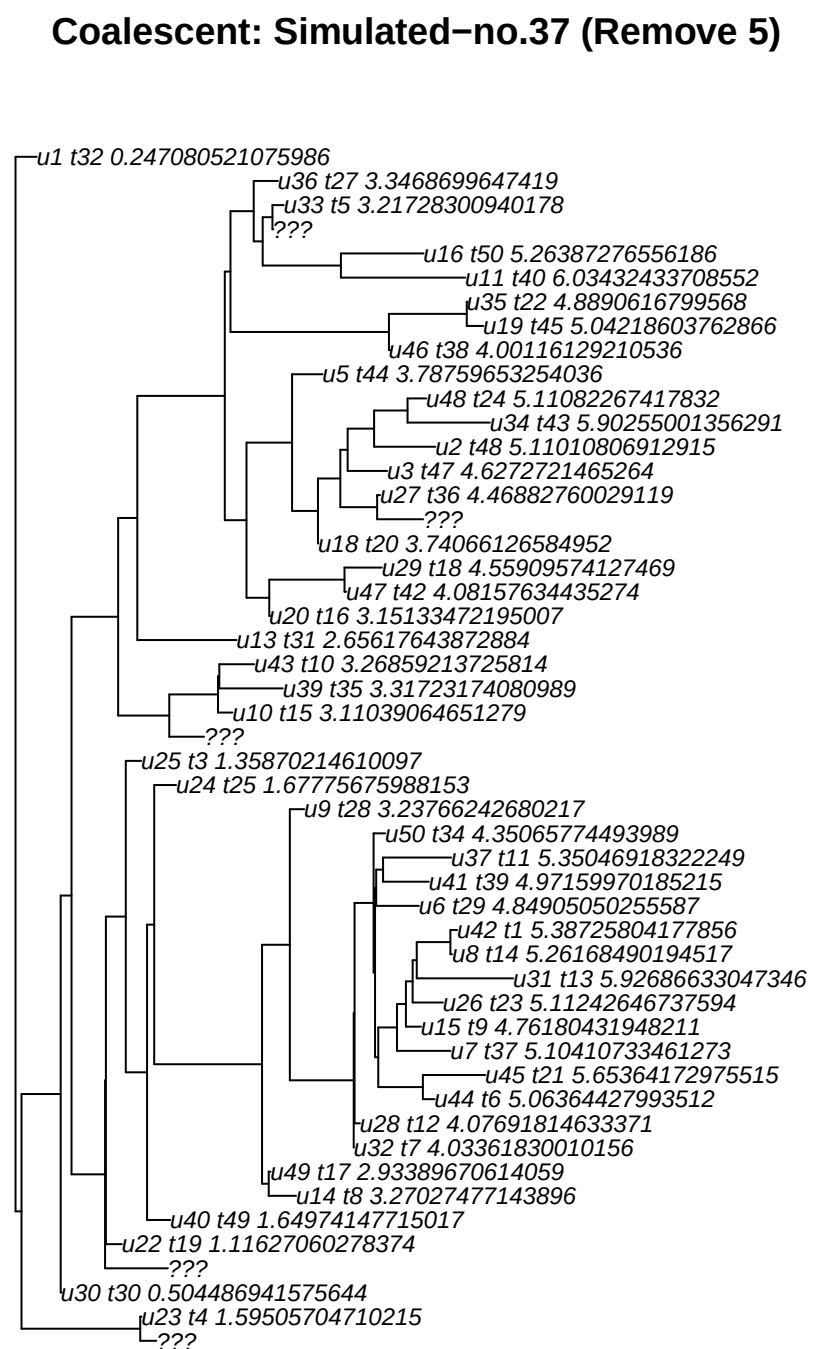

Time vs Distance
0.8651
0.7965
0.2581
0.1898
0.184
Time
1
2
3
4
5
0
2
4
6
Expected Substitutions
(Mean square error: 0.303844)

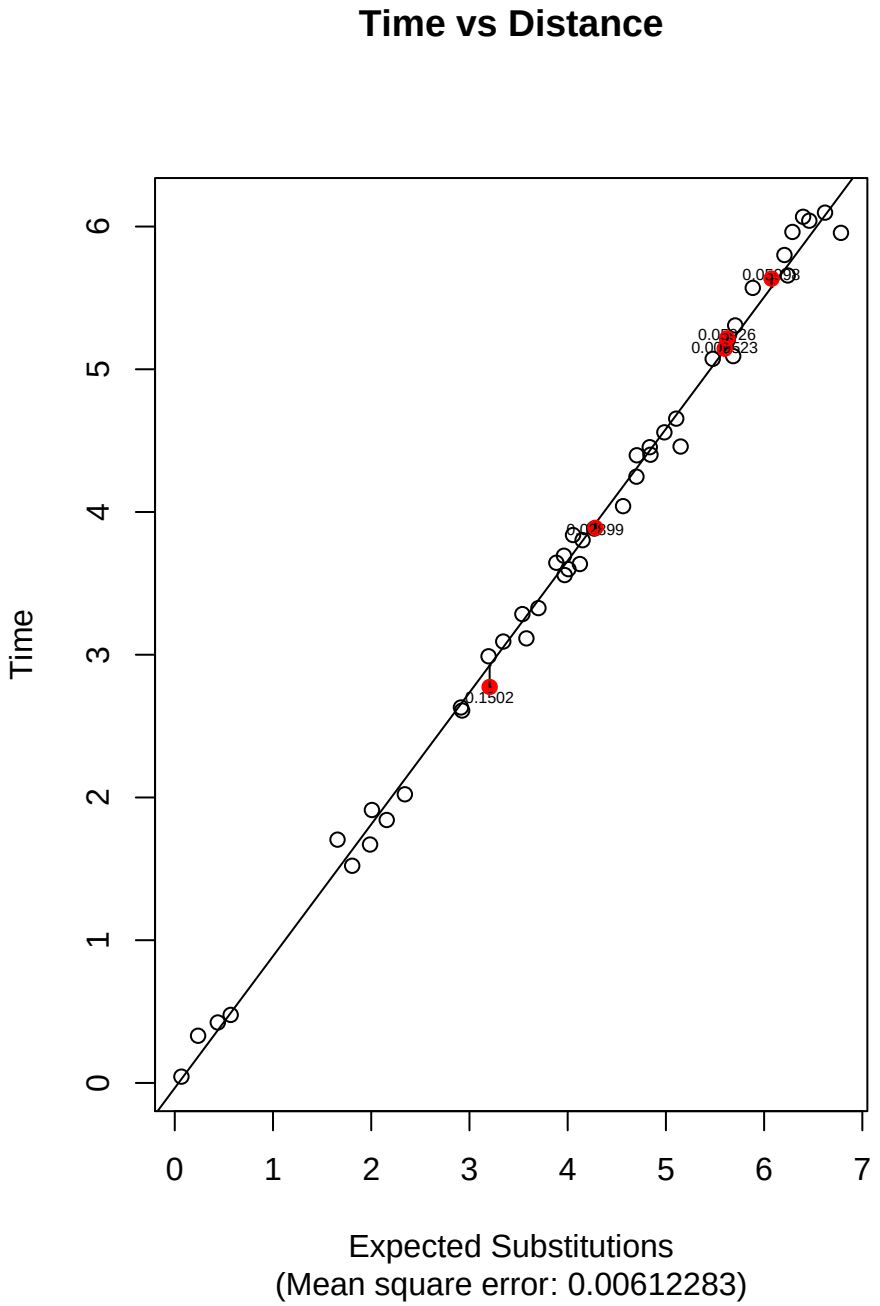

Coalescent: Simulated−no.35 (Remove 5)
u35 t10 0.723581283603678
u33 t11 0.339728130312128
u38 t28 1.04558246623958
u40 t26 2.34097069742324
u20 t1 0.90591489255101
u5 t22 2.22194939746573
u27 t49 4.01631346410753
u13 t46 4.20401574089504
u48 t19 4.50633754513033
u16 t18 4.56843987009799
u26 t33 5.01223021939249
u45 t8 4.5016544291516
???
???
u41 t38 4.88468930858601
u3 t39 4.13615590124243
u30 t21 5.5545085078039
u6 t30 5.01528299001829
u44 t37 5.08597008263068
u50 t17 4.89317367486604
u28 t23 4.10511951963801
u11 t25 1.45757494391226
u25 t13 2.04120682621204
u47 t14 2.92837335264961
u32 t29 2.84200467872162
u4 t47 3.65924761519539
u17 t3 3.21892334410841
u23 t44 3.07588498107007
u36 t6 2.96105186702752
u37 t5 2.71681141568655
u9 t7 3.65244117881958
u14 t40 4.99962130610321
u7 t27 4.36282934843918
u43 t9 5.04969531504399
u31 t12 5.49622097922922
u8 t16 5.42071576635052
u42 t2 5.29831631414537
???
u1 t34 3.85442836819458
u15 t24 3.07555186401669
u34 t41 2.78895490363107
u49 t31 3.26199509440355
???
u29 t43 3.35598950371373
u22 t48 1.70727327223822
u39 t50 3.3606334975575
???
u2 t35 2.87097807601615
u21 t32 1.24114548256182
u19 t36 1.0852033083708

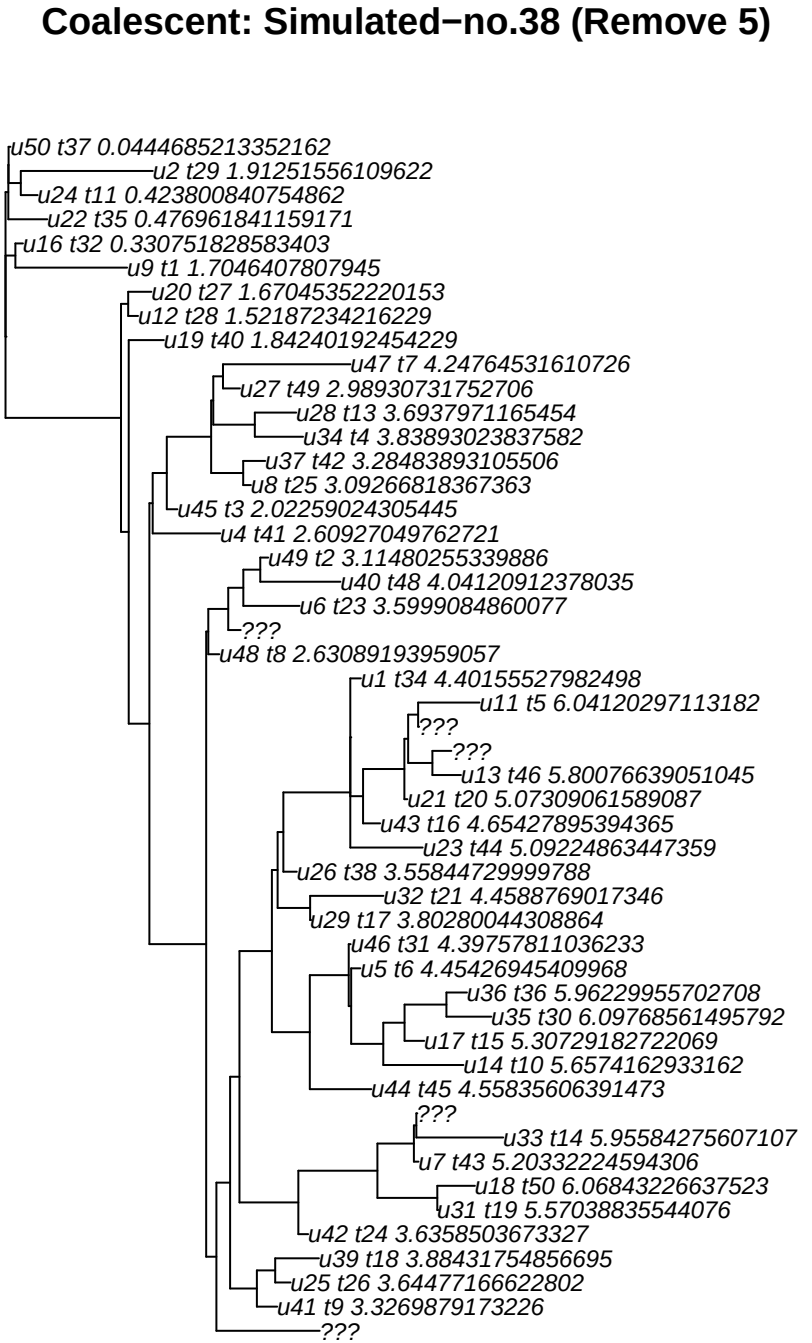

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0180255)
0
1
2
3
4
5

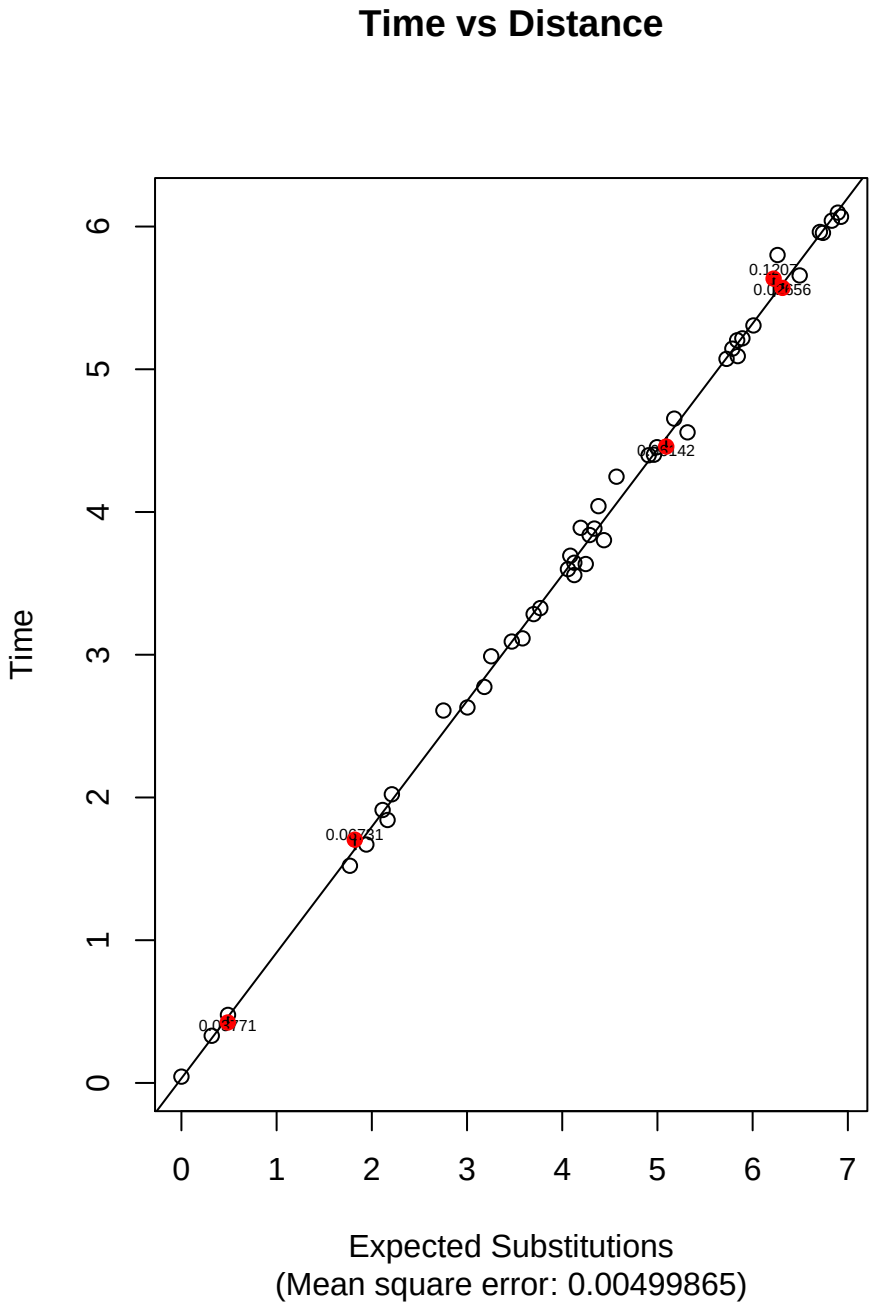

Coalescent: Simulated−no.36 (Remove 5)
u37 t20 0.247498329738583
u42 t29 0.41956209052182
???
u6 t22 1.52346348057591
u18 t19 0.58673248047065
u8 t39 1.50888497470668
u10 t35 1.21077090462906
u32 t26 1.8737329013589
u36 t30 1.17921113880087
???
u24 t42 2.2326682242586
u39 t41 1.71176208042349
u14 t2 3.17381104087538
u7 t3 2.76918468453288
u19 t24 2.79838224406788
u47 t10 4.55968168980834
u41 t45 4.85511534291257
???
u31 t5 4.57011716663257
u25 t11 4.43002211596853
u40 t13 4.43754562893219
u20 t28 4.63155694326388
u46 t17 4.50785033550028
u21 t16 4.95797308177608
u33 t49 4.32251161977055
u44 t27 3.77200952950084
???
u30 t1 4.00954632804387
u17 t12 4.5139067079656
u9 t47 3.90106422334086
u2 t32 2.53859647221491
u50 t50 2.4413145612956
u12 t31 2.56480967470072
u22 t25 3.1116659732505
u4 t48 3.31096348826178
u45 t37 3.8790901471453
u48 t40 4.79766856705015
u35 t36 4.01106646283624
u3 t14 4.92997061633593
u1 t4 4.71827636535474
u27 t44 3.74479706056185
u13 t21 3.89138191504624
u11 t23 1.29059012929911
u34 t43 0.702097748967041
u43 t8 0.684999086025397
u26 t34 0.745858847788816
???
u29 t15 0.75650365751626
u15 t46 1.79437148050563
u5 t38 1.57881450162092

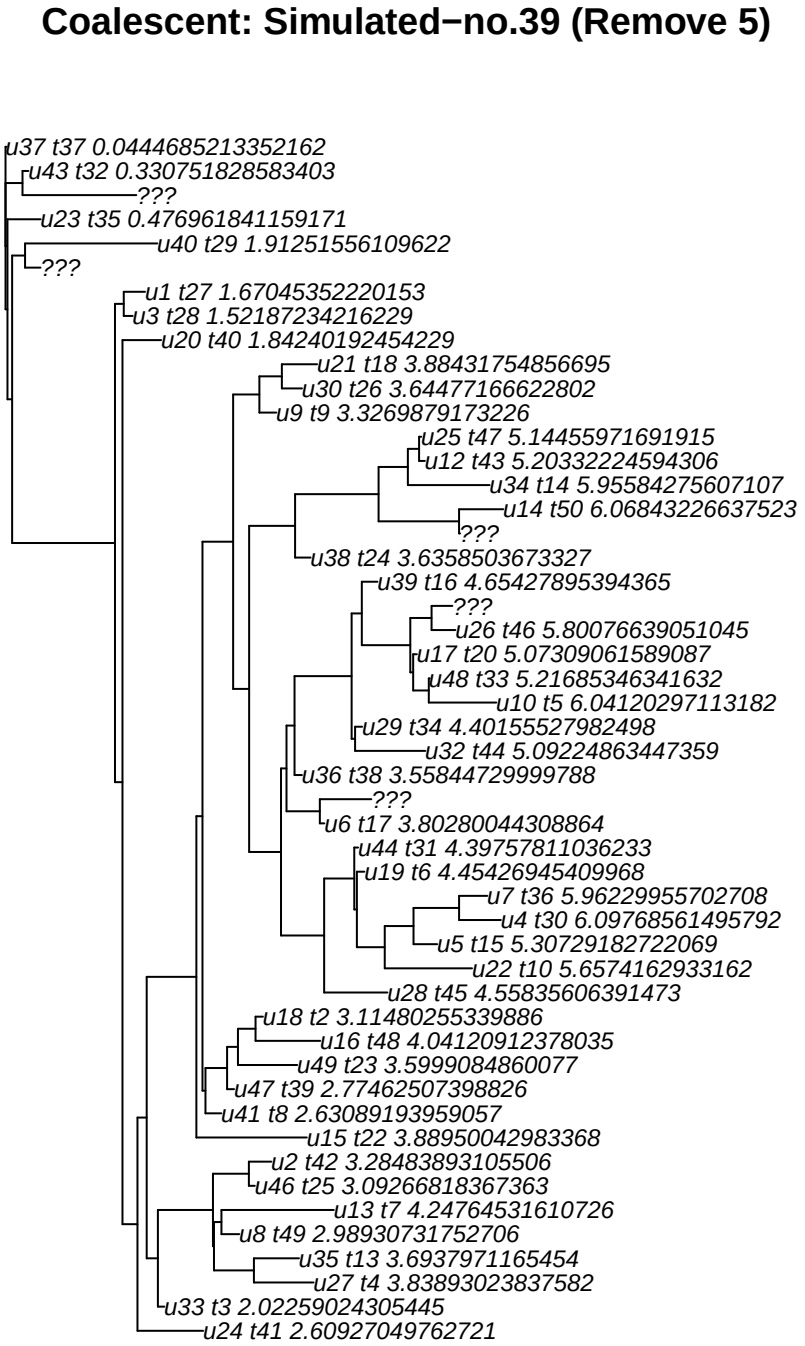

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00692164)
1
2
3
4
5
6
0.1135
0.1152
0.04109
0.02643

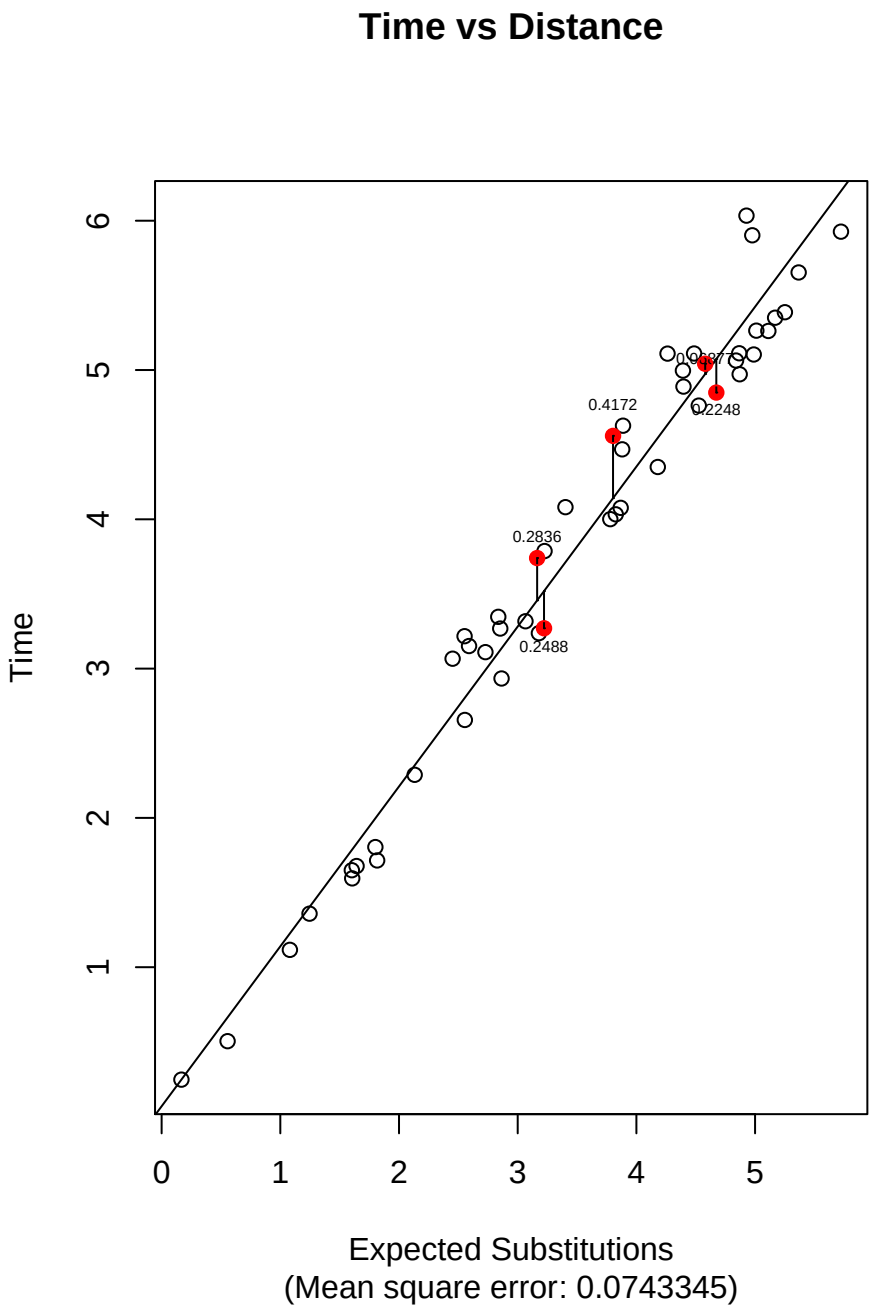

Coalescent: Simulated−no.37 (Remove 5)
u1 t32 0.247080521075986
u36 t27 3.3468699647419
u33 t5 3.21728300940178
???
u16 t50 5.26387276556186
u11 t40 6.03432433708552
u35 t22 4.8890616799568
u19 t45 5.04218603762866
u46 t38 4.00116129210536
u5 t44 3.78759653254036
u48 t24 5.11082267417832
u34 t43 5.90255001356291
u2 t48 5.11010806912915
u3 t47 4.6272721465264
u27 t36 4.46882760029119
???
u18 t20 3.74066126584952
u29 t18 4.55909574127469
u47 t42 4.08157634435274
u20 t16 3.15133472195007
u13 t31 2.65617643872884
u43 t10 3.26859213725814
u39 t35 3.31723174080989
u10 t15 3.11039064651279
???
u25 t3 1.35870214610097
u24 t25 1.67775675988153
u9 t28 3.23766242680217
u50 t34 4.35065774493989
u37 t11 5.35046918322249
u41 t39 4.97159970185215
u6 t29 4.84905050255587
u42 t1 5.38725804177856
u8 t14 5.26168490194517
u31 t13 5.92686633047346
u26 t23 5.11242646737594
u15 t9 4.76180431948211
u7 t37 5.10410733461273
u45 t21 5.65364172975515
u44 t6 5.06364427993512
u28 t12 4.07691814633371
u32 t7 4.03361830010156
u49 t17 2.93389670614059
u14 t8 3.27027477143896
u40 t49 1.64974147715017
u22 t19 1.11627060278374
???
u30 t30 0.504486941575644
u23 t4 1.59505704710215
???

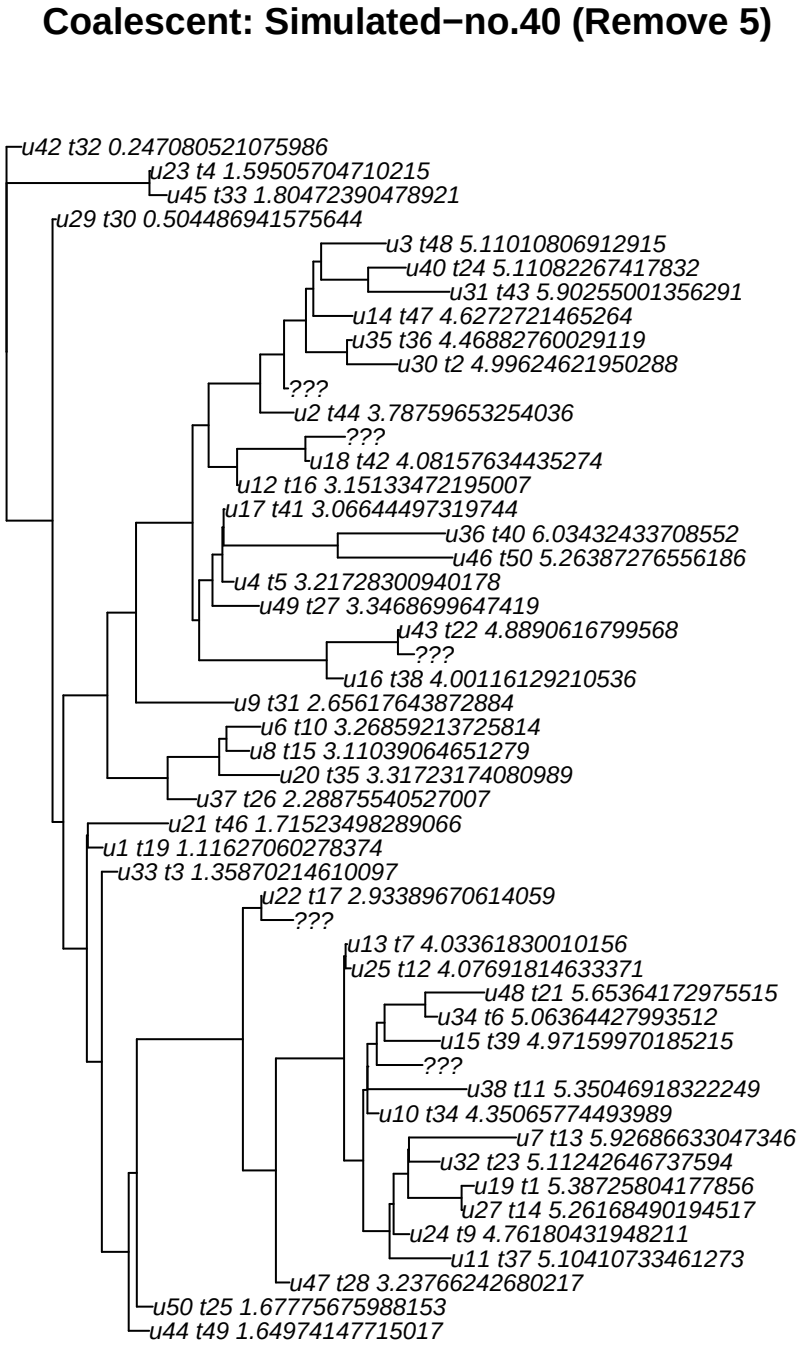

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00612283)
0
1
2
3
4
5
6
7
0.1502

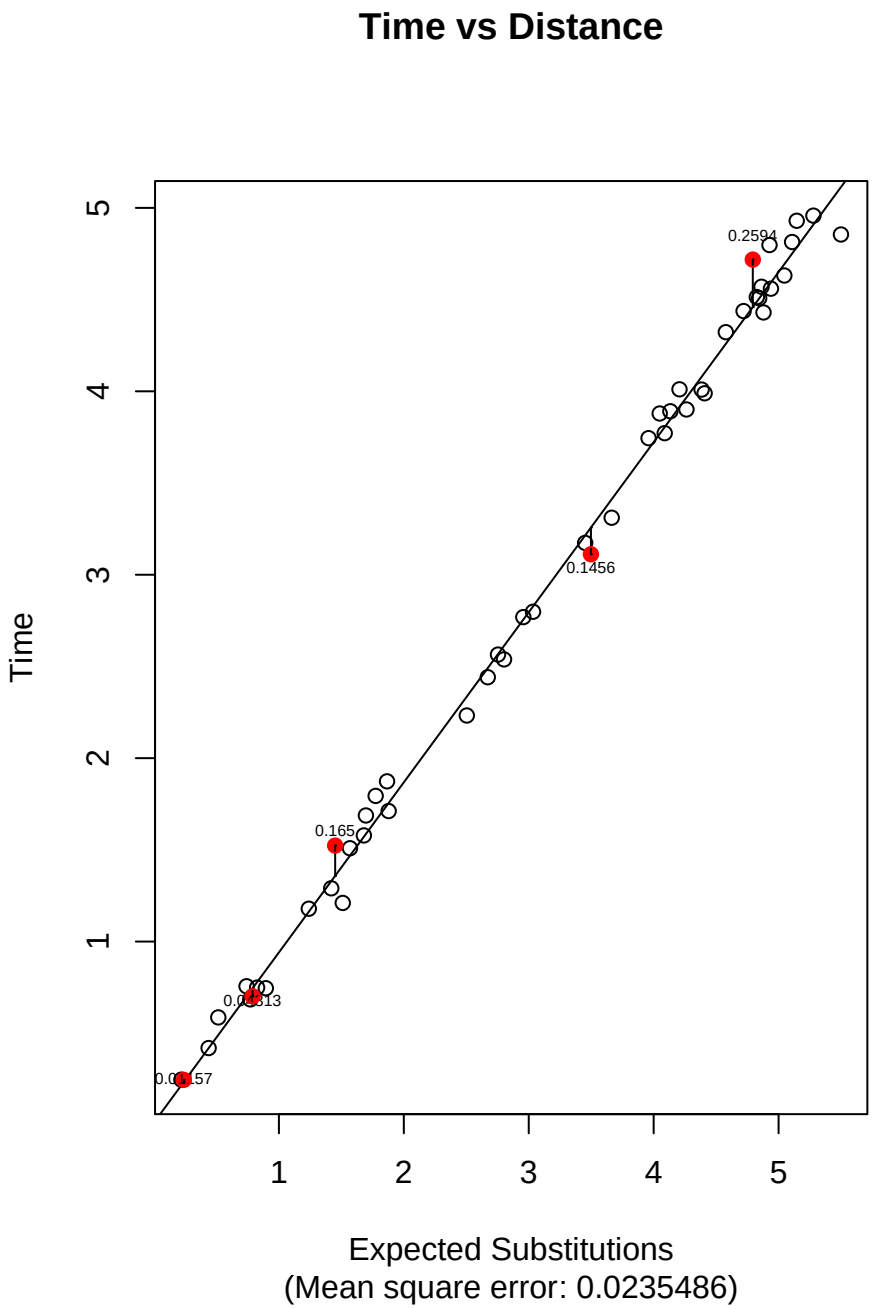

Coalescent: Simulated−no.38 (Remove 5)
u50 t37 0.0444685213352162
u2 t29 1.91251556109622
u24 t11 0.423800840754862
u22 t35 0.476961841159171
u16 t32 0.330751828583403
u9 t1 1.7046407807945
u20 t27 1.67045352220153
u12 t28 1.52187234216229
u19 t40 1.84240192454229
u47 t7 4.24764531610726
u27 t49 2.98930731752706
u28 t13 3.6937971165454
u34 t4 3.83893023837582
u37 t42 3.28483893105506
u8 t25 3.09266818367363
u45 t3 2.02259024305445
u4 t41 2.60927049762721
u49 t2 3.11480255339886
u40 t48 4.04120912378035
u6 t23 3.5999084860077
???
u48 t8 2.63089193959057
u1 t34 4.40155527982498
u11 t5 6.04120297113182
???
???
u13 t46 5.80076639051045
u21 t20 5.07309061589087
u43 t16 4.65427895394365
u23 t44 5.09224863447359
u26 t38 3.55844729999788
u32 t21 4.4588769017346
u29 t17 3.80280044308864
u46 t31 4.39757811036233
u5 t6 4.45426945409968
u36 t36 5.96229955702708
u35 t30 6.09768561495792
u17 t15 5.30729182722069
u14 t10 5.6574162933162
u44 t45 4.55835606391473
???
u33 t14 5.95584275607107
u7 t43 5.20332224594306
u18 t50 6.06843226637523
u31 t19 5.57038835544076
u42 t24 3.6358503673327
u39 t18 3.88431754856695
u25 t26 3.64477166622802
u41 t9 3.3269879173226
???

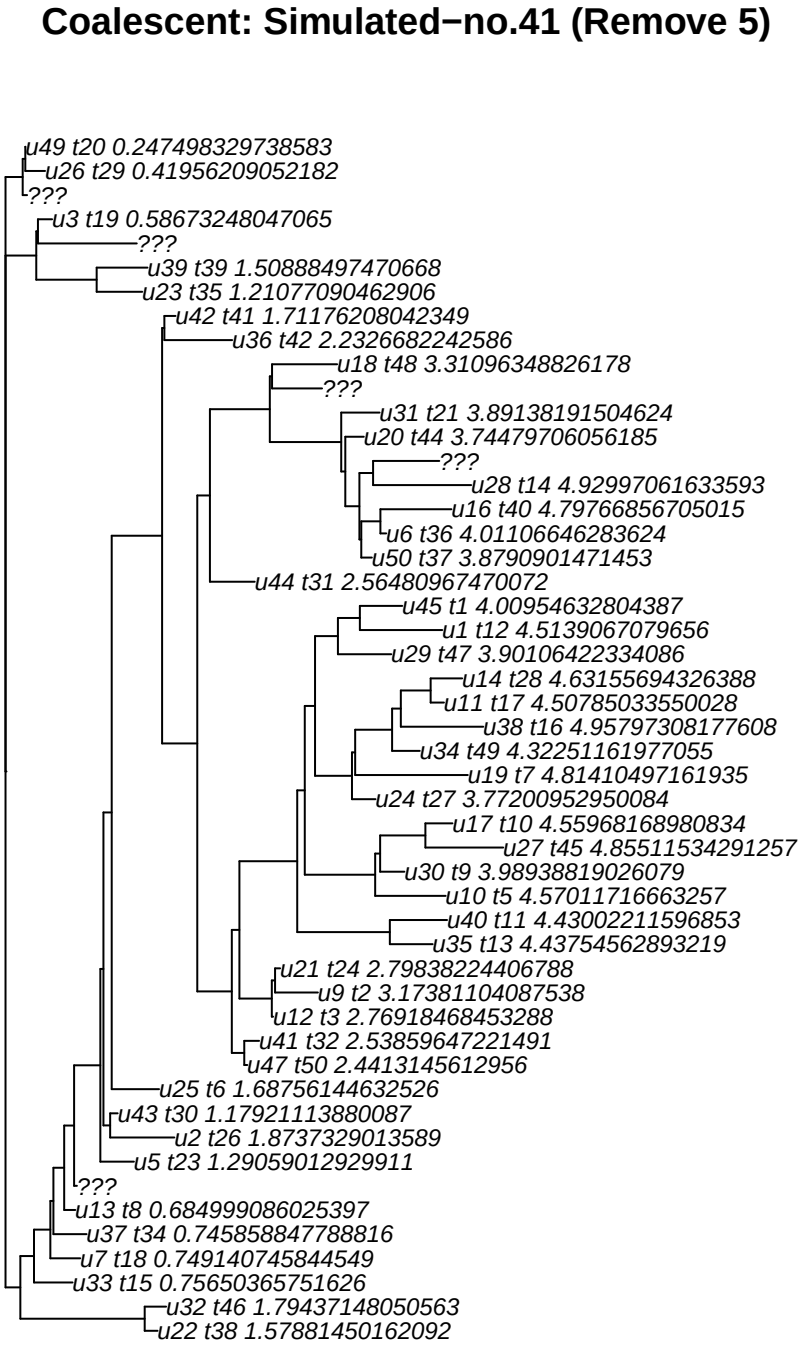

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00499865)
0
1
2
3
4
5
6
7

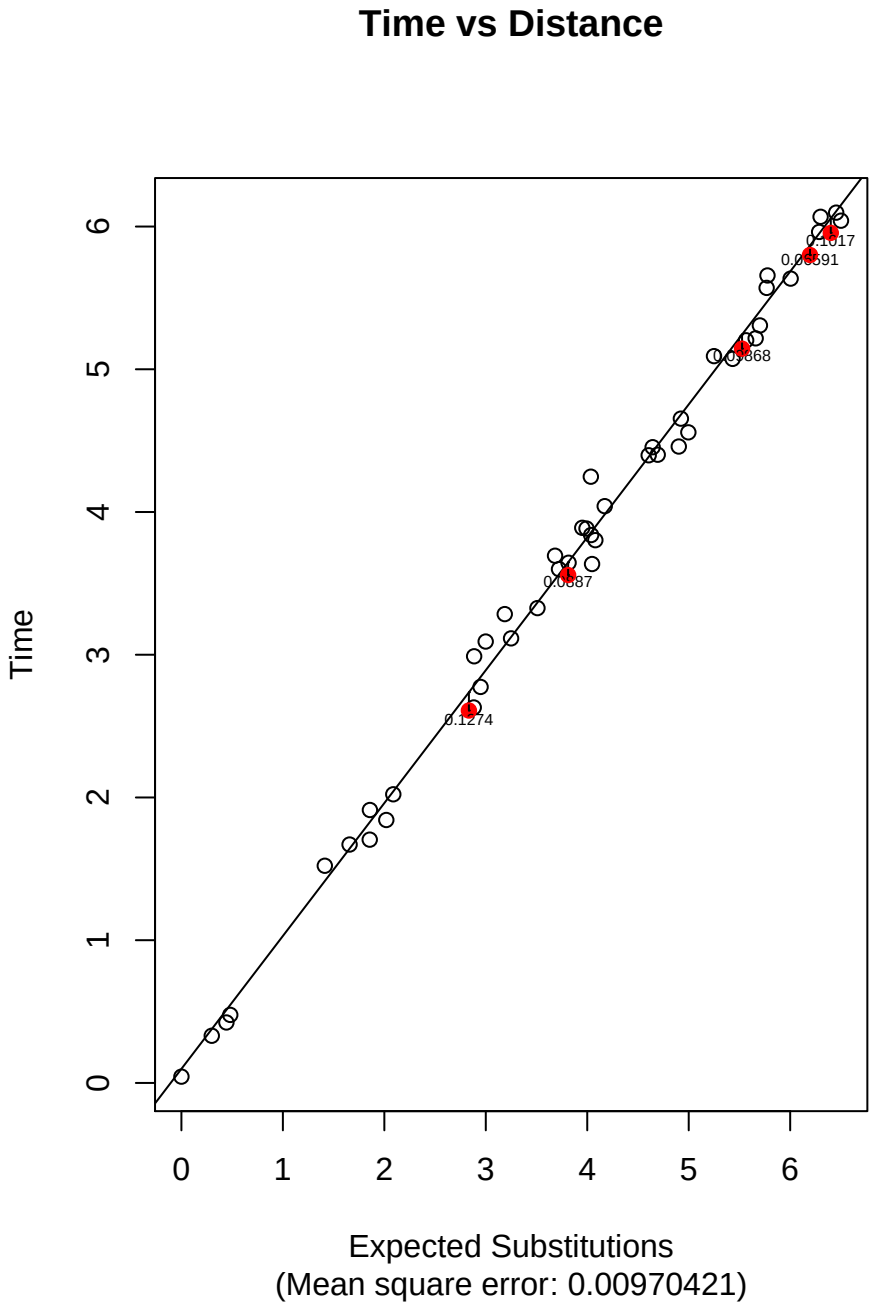

Coalescent: Simulated−no.39 (Remove 5)
u37 t37 0.0444685213352162
u43 t32 0.330751828583403
???
u23 t35 0.476961841159171
u40 t29 1.91251556109622
???
u1 t27 1.67045352220153
u3 t28 1.52187234216229
u20 t40 1.84240192454229
u21 t18 3.88431754856695
u30 t26 3.64477166622802
u9 t9 3.3269879173226
u25 t47 5.14455971691915
u12 t43 5.20332224594306
u34 t14 5.95584275607107
u14 t50 6.06843226637523
???
u38 t24 3.6358503673327
u39 t16 4.65427895394365
???
u26 t46 5.80076639051045
u17 t20 5.07309061589087
u48 t33 5.21685346341632
u10 t5 6.04120297113182
u29 t34 4.40155527982498
u32 t44 5.09224863447359
u36 t38 3.55844729999788
???
u6 t17 3.80280044308864
u44 t31 4.39757811036233
u19 t6 4.45426945409968
u7 t36 5.96229955702708
u4 t30 6.09768561495792
u5 t15 5.30729182722069
u22 t10 5.6574162933162
u28 t45 4.55835606391473
u18 t2 3.11480255339886
u16 t48 4.04120912378035
u49 t23 3.5999084860077
u47 t39 2.77462507398826
u41 t8 2.63089193959057
u15 t22 3.88950042983368
u2 t42 3.28483893105506
u46 t25 3.09266818367363
u13 t7 4.24764531610726
u8 t49 2.98930731752706
u35 t13 3.6937971165454
u27 t4 3.83893023837582
u33 t3 2.02259024305445
u24 t41 2.60927049762721

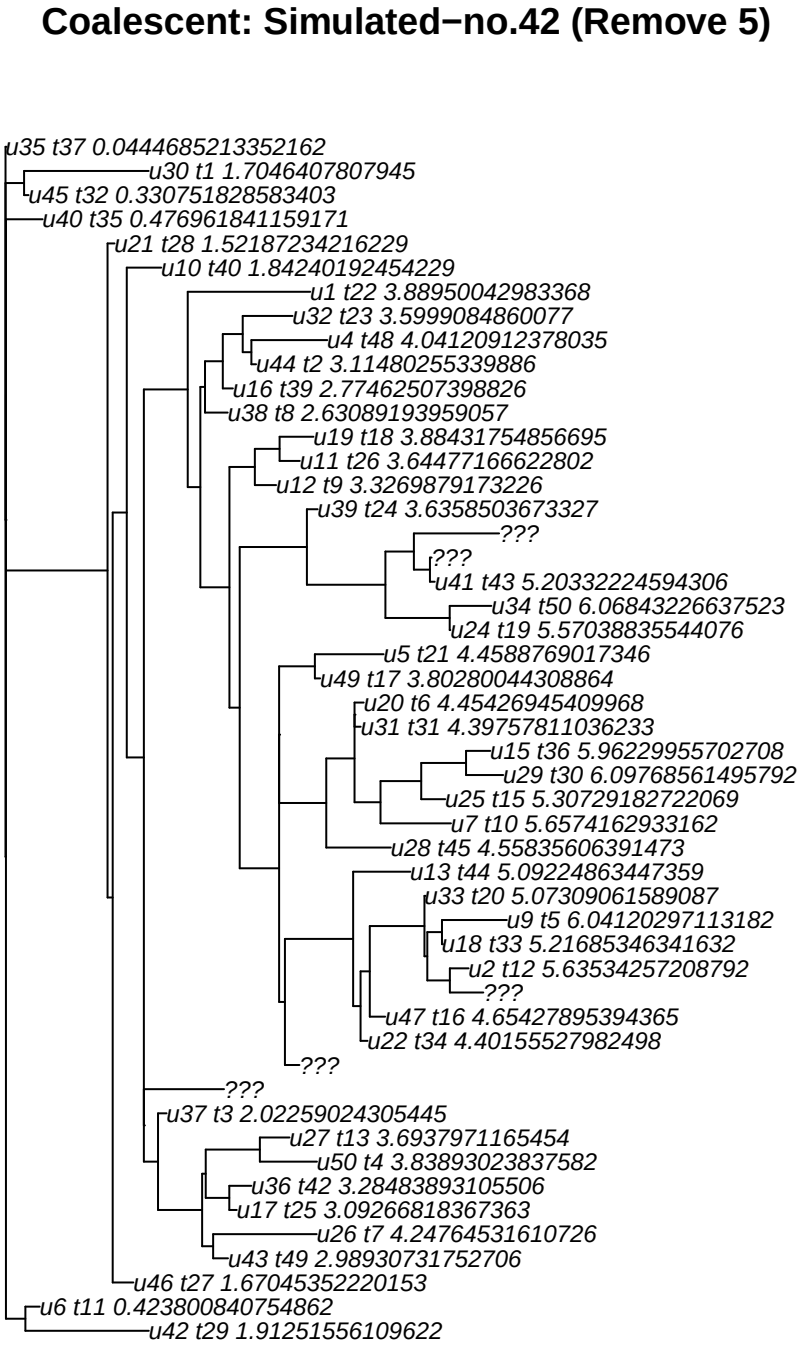

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0743345)
0.4172
0.2248
0.2836
0.2488
0
1
2
3
4
5
6

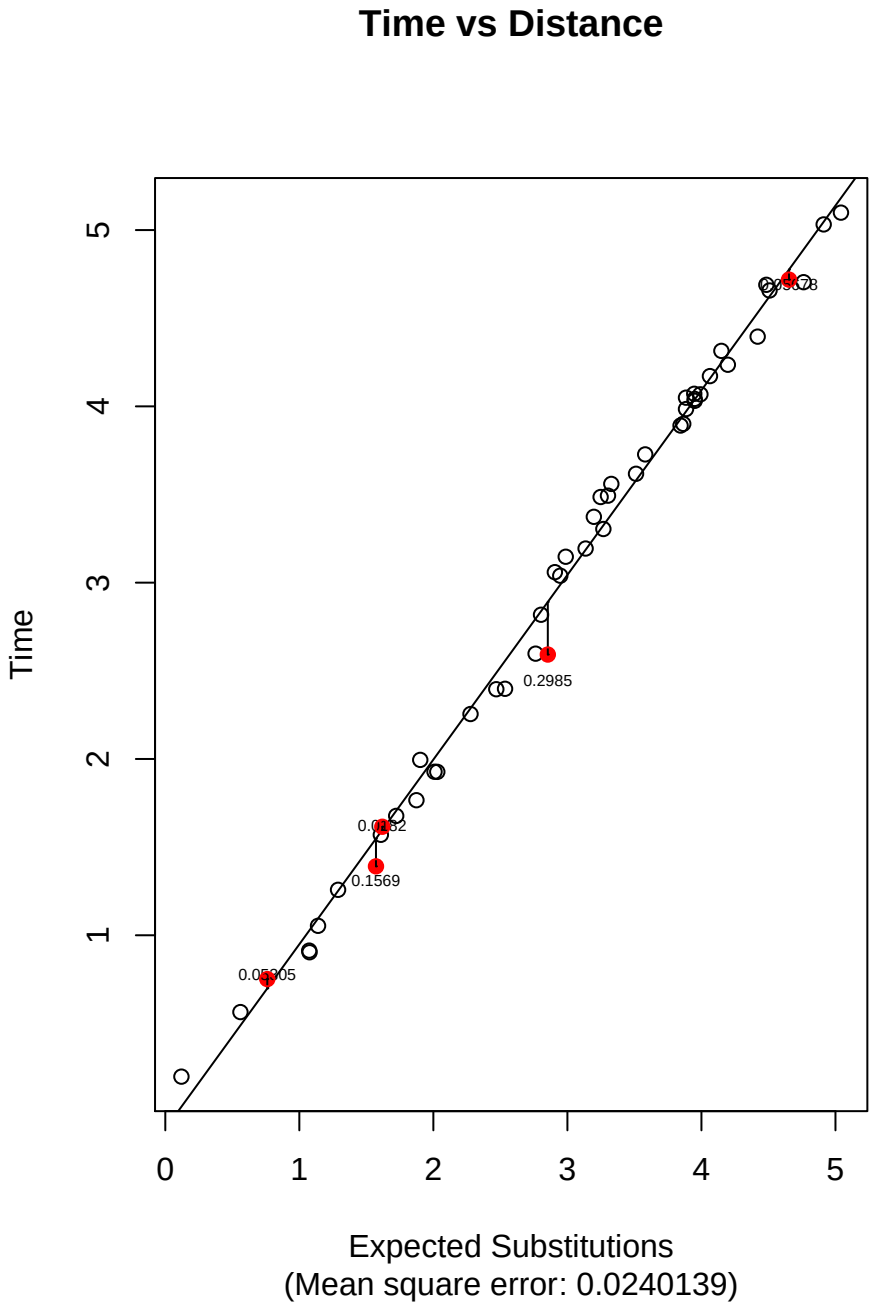

Coalescent: Simulated−no.40 (Remove 5)
u42 t32 0.247080521075986
u23 t4 1.59505704710215
u45 t33 1.80472390478921
u29 t30 0.504486941575644
u3 t48 5.11010806912915
u40 t24 5.11082267417832
u31 t43 5.90255001356291
u14 t47 4.6272721465264
u35 t36 4.46882760029119
u30 t2 4.99624621950288
???
u2 t44 3.78759653254036
???
u18 t42 4.08157634435274
u12 t16 3.15133472195007
u17 t41 3.06644497319744
u36 t40 6.03432433708552
u46 t50 5.26387276556186
u4 t5 3.21728300940178
u49 t27 3.3468699647419
u43 t22 4.8890616799568
???
u16 t38 4.00116129210536
u9 t31 2.65617643872884
u6 t10 3.26859213725814
u8 t15 3.11039064651279
u20 t35 3.31723174080989
u37 t26 2.28875540527007
u21 t46 1.71523498289066
u1 t19 1.11627060278374
u33 t3 1.35870214610097
u22 t17 2.93389670614059
???
u13 t7 4.03361830010156
u25 t12 4.07691814633371
u48 t21 5.65364172975515
u34 t6 5.06364427993512
u15 t39 4.97159970185215
???
u38 t11 5.35046918322249
u10 t34 4.35065774493989
u7 t13 5.92686633047346
u32 t23 5.11242646737594
u19 t1 5.38725804177856
u27 t14 5.26168490194517
u24 t9 4.76180431948211
u11 t37 5.10410733461273
u47 t28 3.23766242680217
u50 t25 1.67775675988153
u44 t49 1.64974147715017

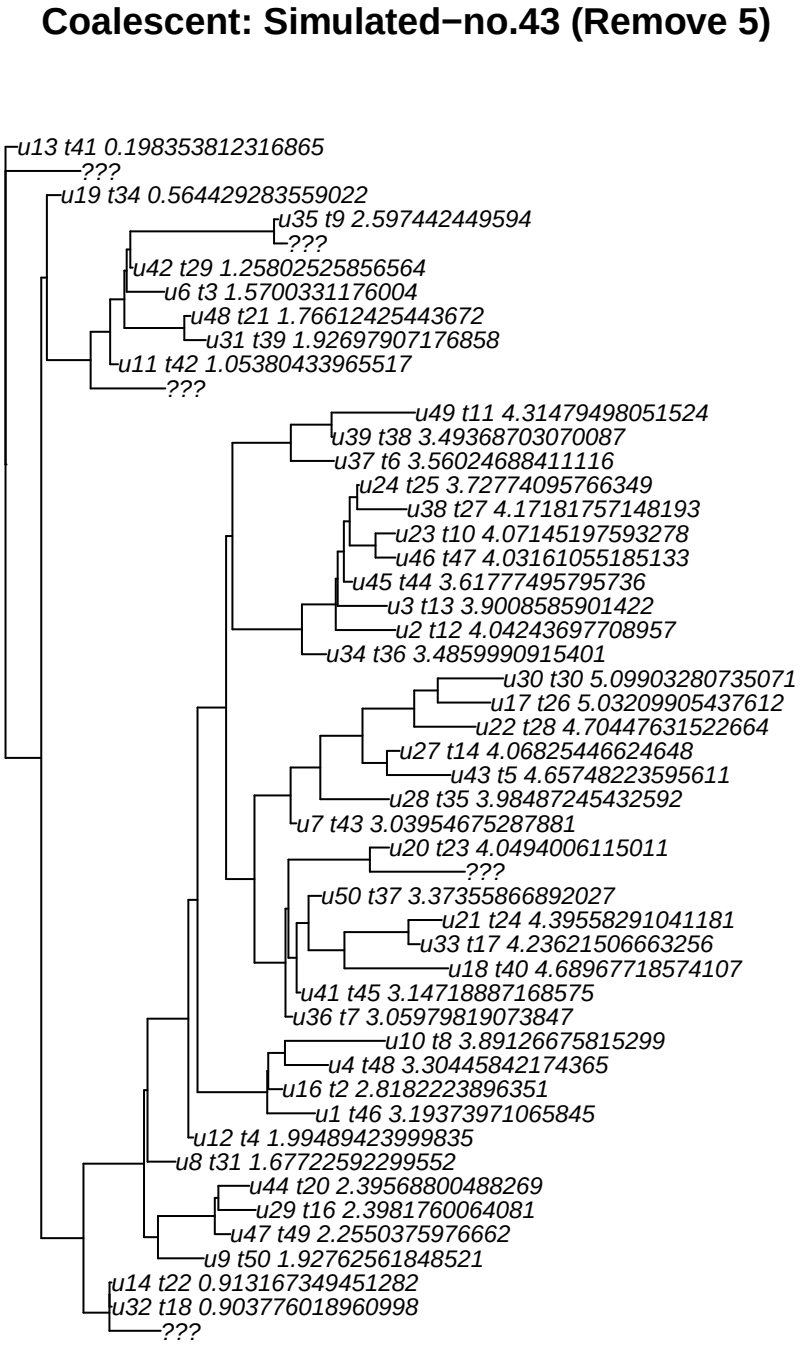

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0235486)
0.2594
0.1456
0.165
1
2
3
4
5

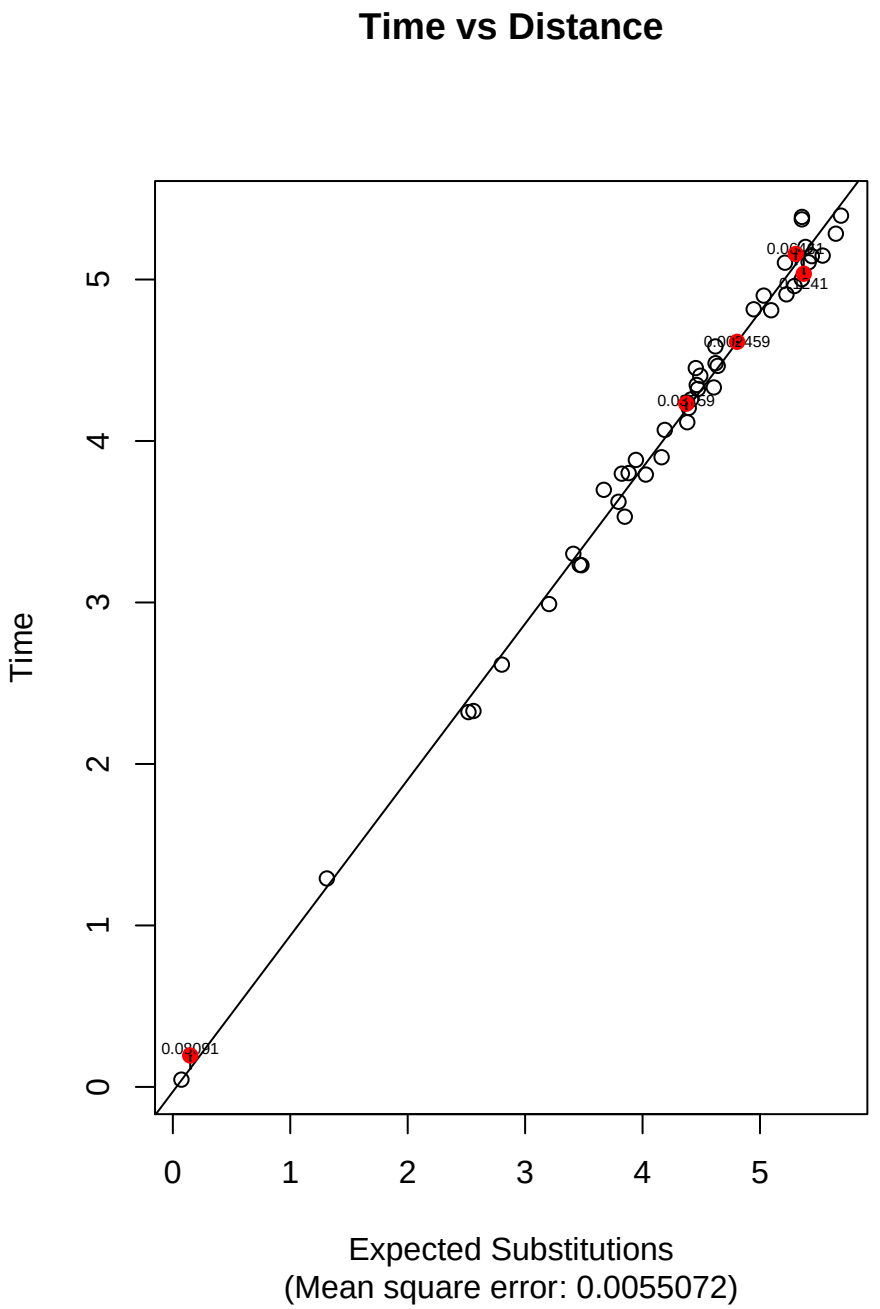

Coalescent: Simulated−no.41 (Remove 5)
u49 t20 0.247498329738583
u26 t29 0.41956209052182
???
u3 t19 0.58673248047065
???
u39 t39 1.50888497470668
u23 t35 1.21077090462906
u42 t41 1.71176208042349
u36 t42 2.2326682242586
u18 t48 3.31096348826178
???
u31 t21 3.89138191504624
u20 t44 3.74479706056185
???
u28 t14 4.92997061633593
u16 t40 4.79766856705015
u6 t36 4.01106646283624
u50 t37 3.8790901471453
u44 t31 2.56480967470072
u45 t1 4.00954632804387
u1 t12 4.5139067079656
u29 t47 3.90106422334086
u14 t28 4.63155694326388
u11 t17 4.50785033550028
u38 t16 4.95797308177608
u34 t49 4.32251161977055
u19 t7 4.81410497161935
u24 t27 3.77200952950084
u17 t10 4.55968168980834
u27 t45 4.85511534291257
u30 t9 3.98938819026079
u10 t5 4.57011716663257
u40 t11 4.43002211596853
u35 t13 4.43754562893219
u21 t24 2.79838224406788
u9 t2 3.17381104087538
u12 t3 2.76918468453288
u41 t32 2.53859647221491
u47 t50 2.4413145612956
u25 t6 1.68756144632526
u43 t30 1.17921113880087
u2 t26 1.8737329013589
u5 t23 1.29059012929911
???
u13 t8 0.684999086025397
u37 t34 0.745858847788816
u7 t18 0.749140745844549
u33 t15 0.75650365751626
u32 t46 1.79437148050563
u22 t38 1.57881450162092

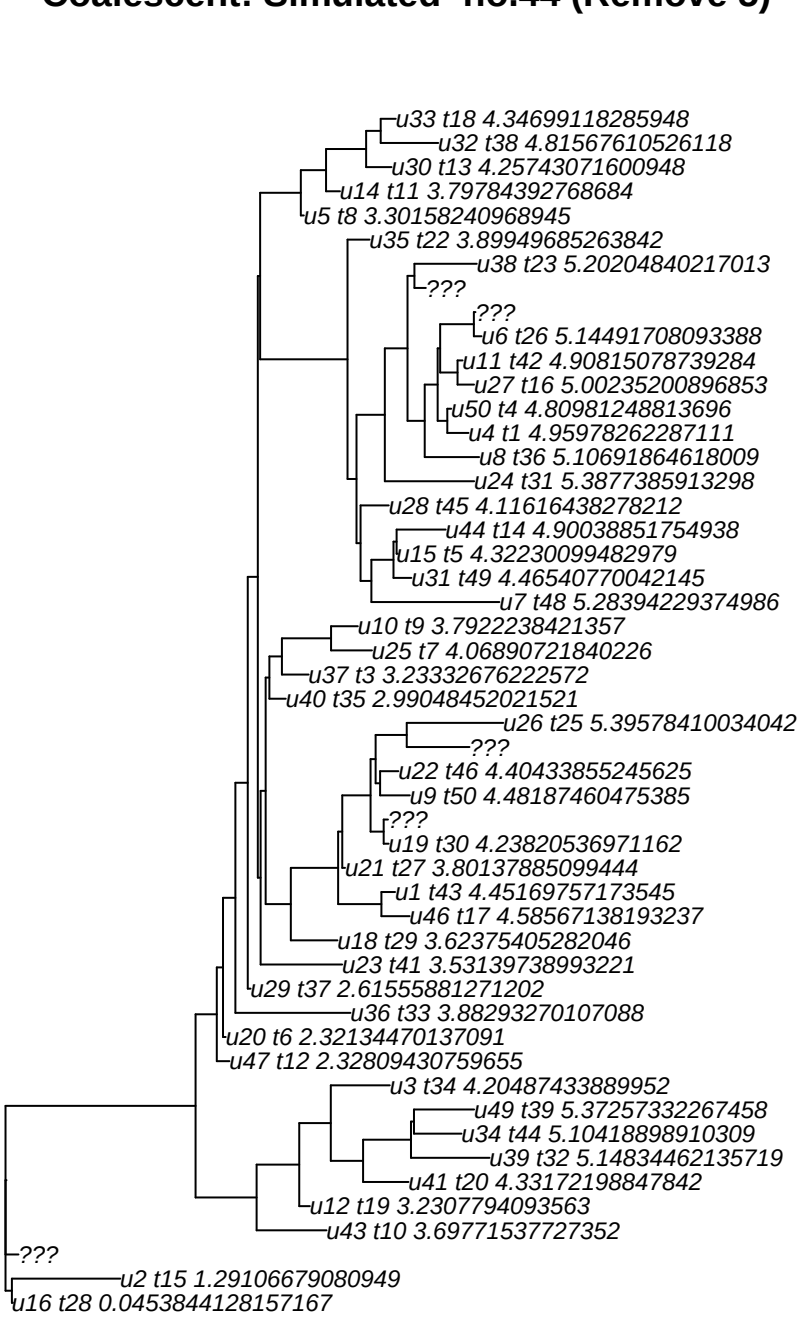

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.00970421)
0
1
2
3
4
5
6
0.1274
0.0887

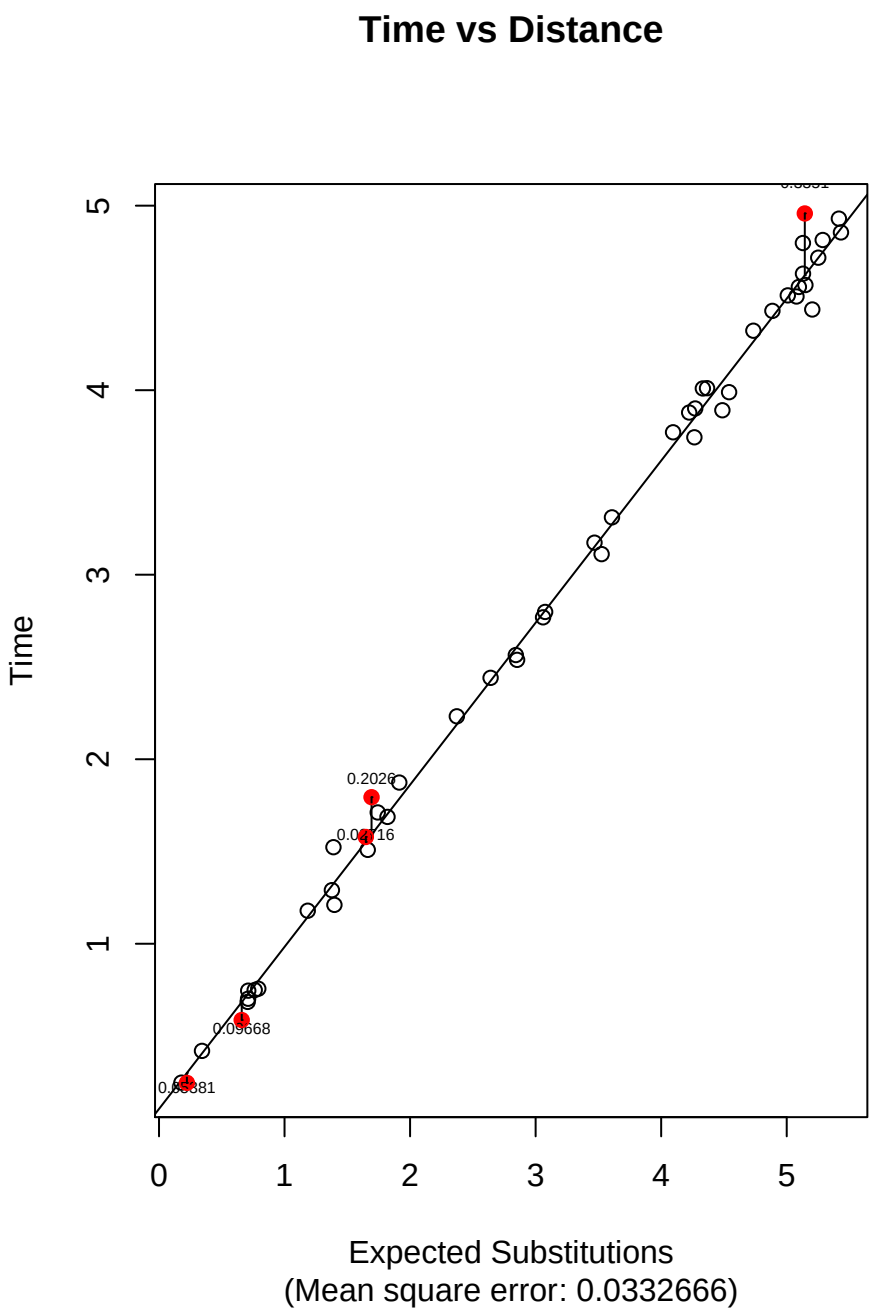

Coalescent: Simulated−no.42 (Remove 5)
u35 t37 0.0444685213352162
u30 t1 1.7046407807945
u45 t32 0.330751828583403
u40 t35 0.476961841159171
u21 t28 1.52187234216229
u10 t40 1.84240192454229
u1 t22 3.88950042983368
u32 t23 3.5999084860077
u4 t48 4.04120912378035
u44 t2 3.11480255339886
u16 t39 2.77462507398826
u38 t8 2.63089193959057
u19 t18 3.88431754856695
u11 t26 3.64477166622802
u12 t9 3.3269879173226
u39 t24 3.6358503673327
???
???
u41 t43 5.20332224594306
u34 t50 6.06843226637523
u24 t19 5.57038835544076
u5 t21 4.4588769017346
u49 t17 3.80280044308864
u20 t6 4.45426945409968
u31 t31 4.39757811036233
u15 t36 5.96229955702708
u29 t30 6.09768561495792
u25 t15 5.30729182722069
u7 t10 5.6574162933162
u28 t45 4.55835606391473
u13 t44 5.09224863447359
u33 t20 5.07309061589087
u9 t5 6.04120297113182
u18 t33 5.21685346341632
u2 t12 5.63534257208792
???
u47 t16 4.65427895394365
u22 t34 4.40155527982498
???
???
u37 t3 2.02259024305445
u27 t13 3.6937971165454
u50 t4 3.83893023837582
u36 t42 3.28483893105506
u17 t25 3.09266818367363
u26 t7 4.24764531610726
u43 t49 2.98930731752706
u46 t27 1.67045352220153
u6 t11 0.423800840754862
u42 t29 1.91251556109622

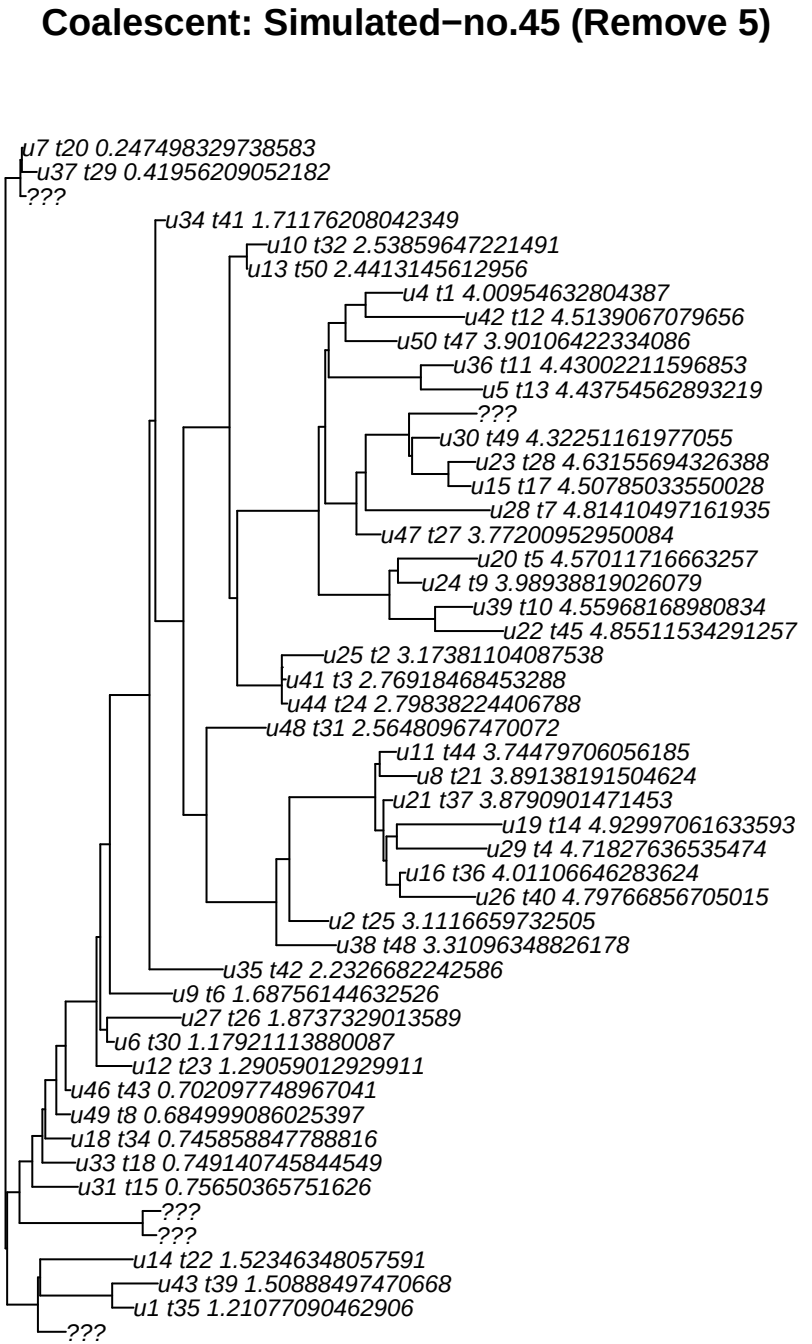

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0240139)
0
1
2
3
4
5
0.2985
0.1569

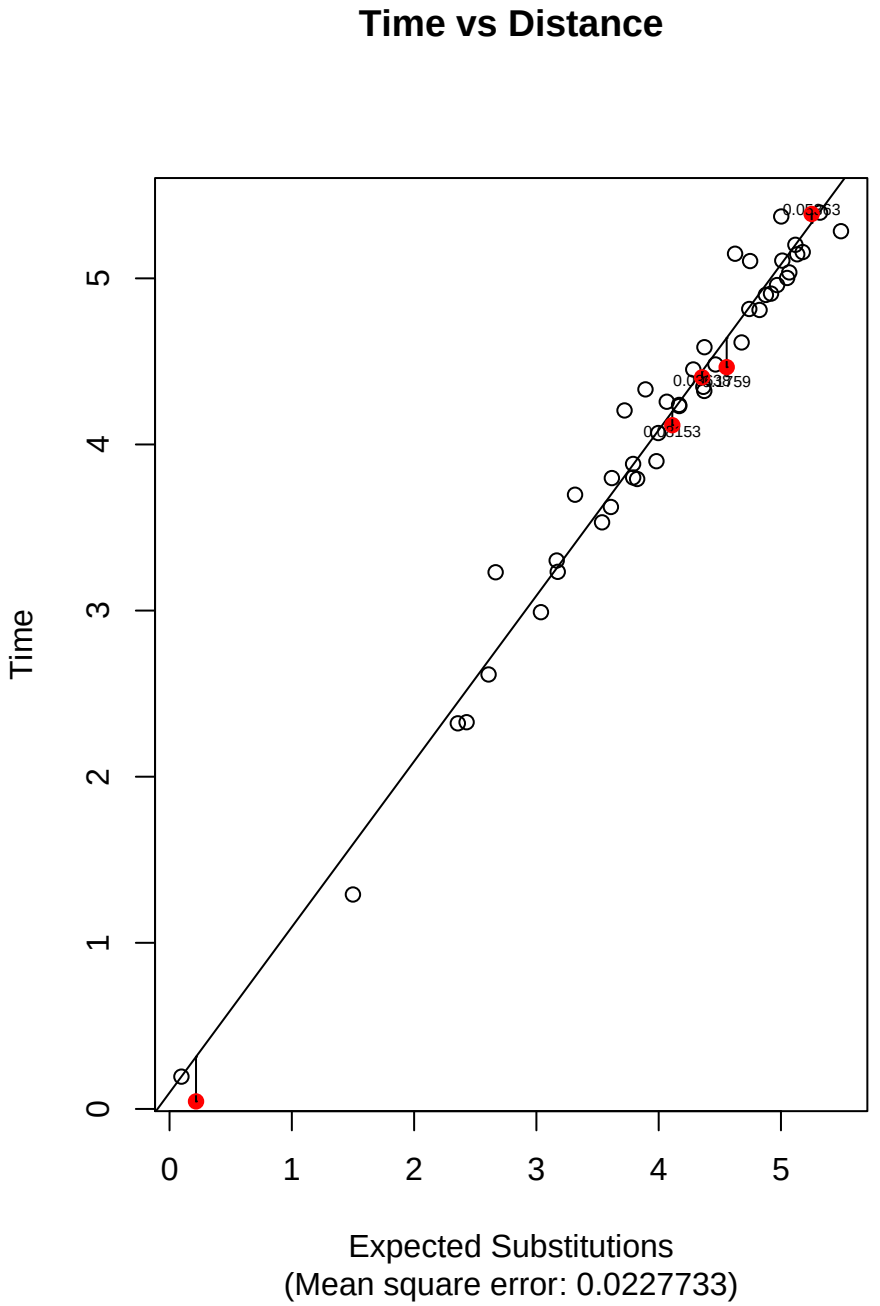

Coalescent: Simulated−no.43 (Remove 5)
u13 t41 0.198353812316865
???
u19 t34 0.564429283559022
u35 t9 2.597442449594
???
u42 t29 1.25802525856564
u6 t3 1.5700331176004
u48 t21 1.76612425443672
u31 t39 1.92697907176858
u11 t42 1.05380433965517
???
u49 t11 4.31479498051524
u39 t38 3.49368703070087
u37 t6 3.56024688411116
u24 t25 3.72774095766349
u38 t27 4.17181757148193
u23 t10 4.07145197593278
u46 t47 4.03161055185133
u45 t44 3.61777495795736
u3 t13 3.9008585901422
u2 t12 4.04243697708957
u34 t36 3.4859990915401
u30 t30 5.09903280735071
u17 t26 5.03209905437612
u22 t28 4.70447631522664
u27 t14 4.06825446624648
u43 t5 4.65748223595611
u28 t35 3.98487245432592
u7 t43 3.03954675287881
u20 t23 4.0494006115011
???
u50 t37 3.37355866892027
u21 t24 4.39558291041181
u33 t17 4.23621506663256
u18 t40 4.68967718574107
u41 t45 3.14718887168575
u36 t7 3.05979819073847
u10 t8 3.89126675815299
u4 t48 3.30445842174365
u16 t2 2.8182223896351
u1 t46 3.19373971065845
u12 t4 1.99489423999835
u8 t31 1.67722592299552
u44 t20 2.39568800488269
u29 t16 2.3981760064081
u47 t49 2.2550375976662
u9 t50 1.92762561848521
u14 t22 0.913167349451282
u32 t18 0.903776018960998
???

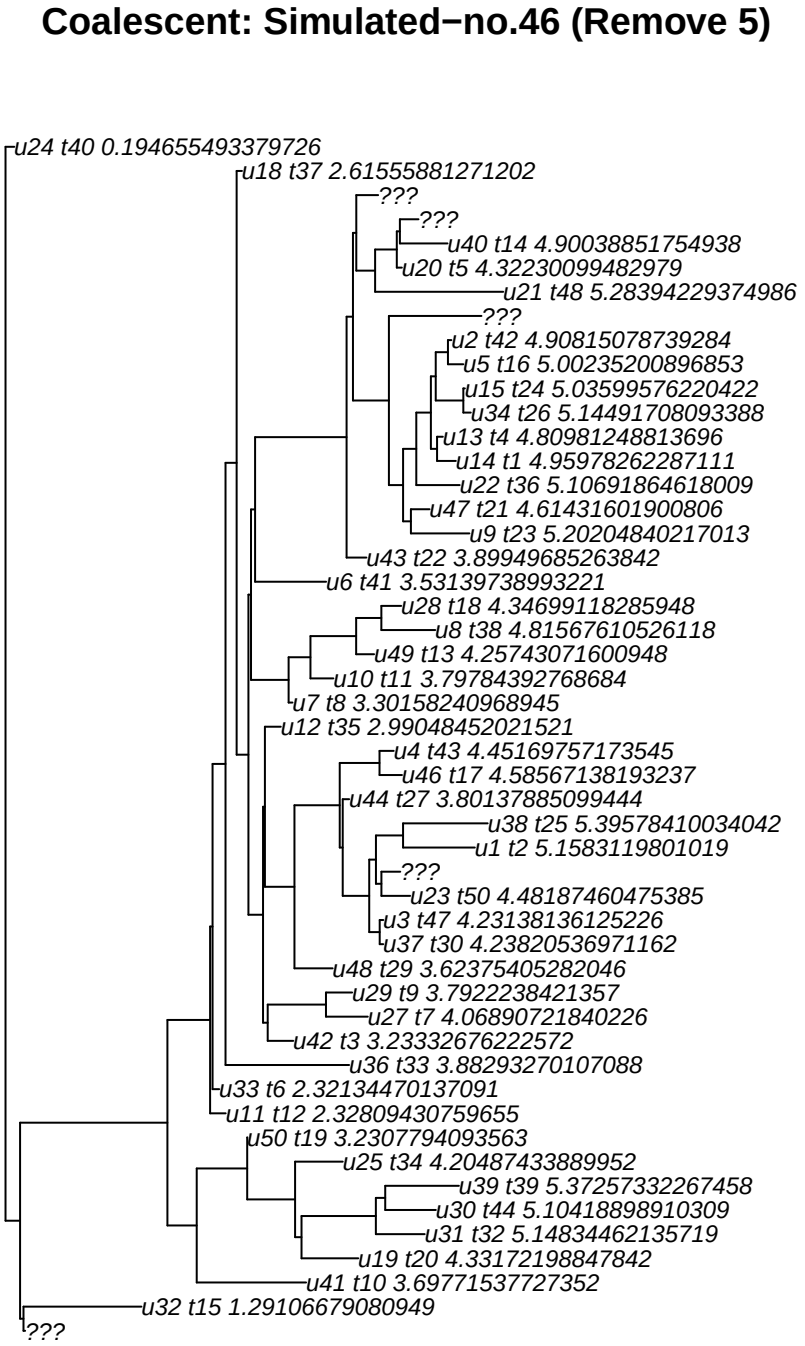

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0055072)
0
1
2
3
4
5
0.09091
0.0459

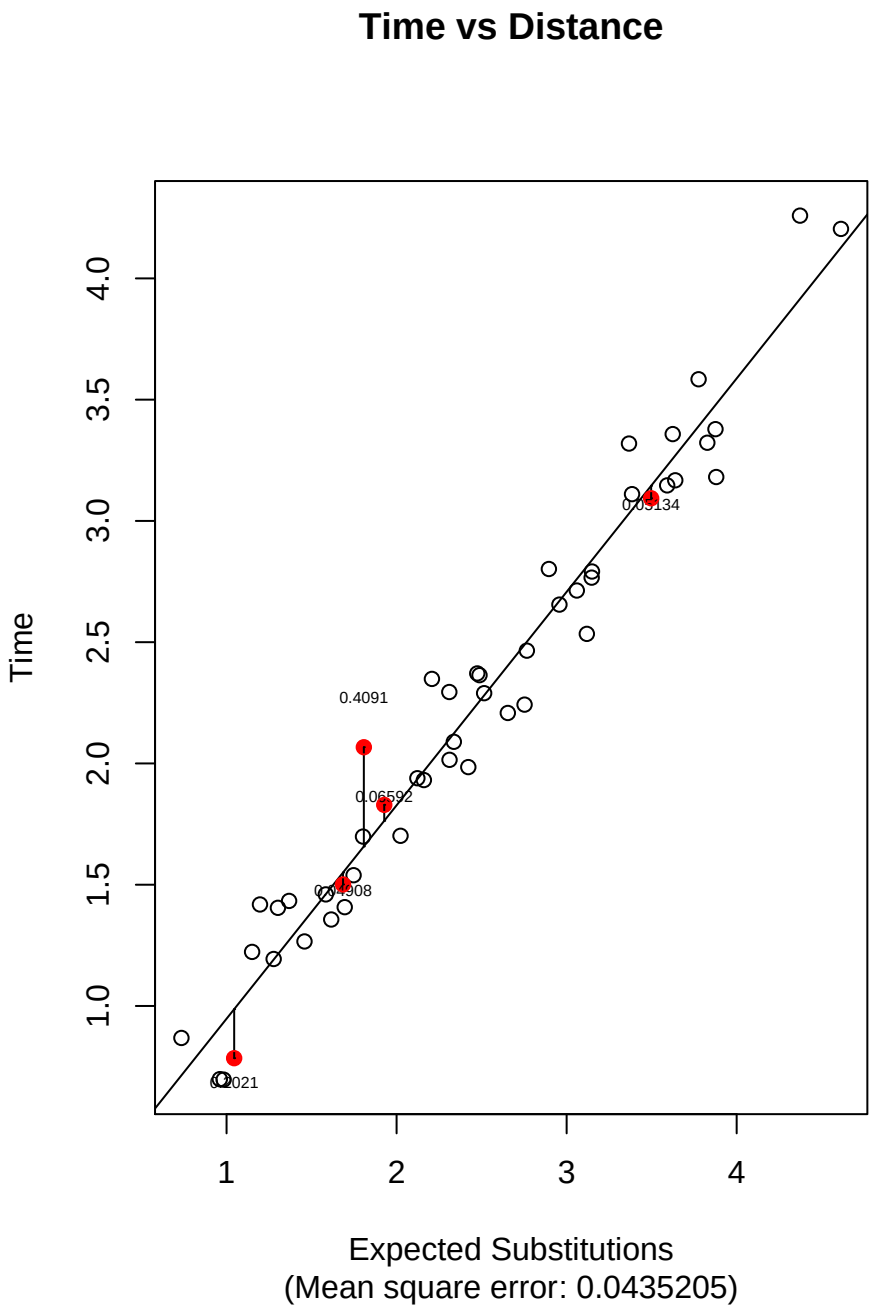

Coalescent: Simulated−no.44 (Remove 5)
u33 t18 4.34699118285948
u32 t38 4.81567610526118
u30 t13 4.25743071600948
u14 t11 3.79784392768684
u5 t8 3.30158240968945
u35 t22 3.89949685263842
u38 t23 5.20204840217013
???
???
u6 t26 5.14491708093388
u11 t42 4.90815078739284
u27 t16 5.00235200896853
u50 t4 4.80981248813696
u4 t1 4.95978262287111
u8 t36 5.10691864618009
u24 t31 5.3877385913298
u28 t45 4.11616438278212
u44 t14 4.90038851754938
u15 t5 4.32230099482979
u31 t49 4.46540770042145
u7 t48 5.28394229374986
u10 t9 3.7922238421357
u25 t7 4.06890721840226
u37 t3 3.23332676222572
u40 t35 2.99048452021521
u26 t25 5.39578410034042
???
u22 t46 4.40433855245625
u9 t50 4.48187460475385
???
u19 t30 4.23820536971162
u21 t27 3.80137885099444
u1 t43 4.45169757173545
u46 t17 4.58567138193237
u18 t29 3.62375405282046
u23 t41 3.53139738993221
u29 t37 2.61555881271202
u36 t33 3.88293270107088
u20 t6 2.32134470137091
u47 t12 2.32809430759655
u3 t34 4.20487433889952
u49 t39 5.37257332267458
u34 t44 5.10418898910309
u39 t32 5.14834462135719
u41 t20 4.33172198847842
u12 t19 3.2307794093563
u43 t10 3.69771537727352
???
u2 t15 1.29106679080949
u16 t28 0.0453844128157167

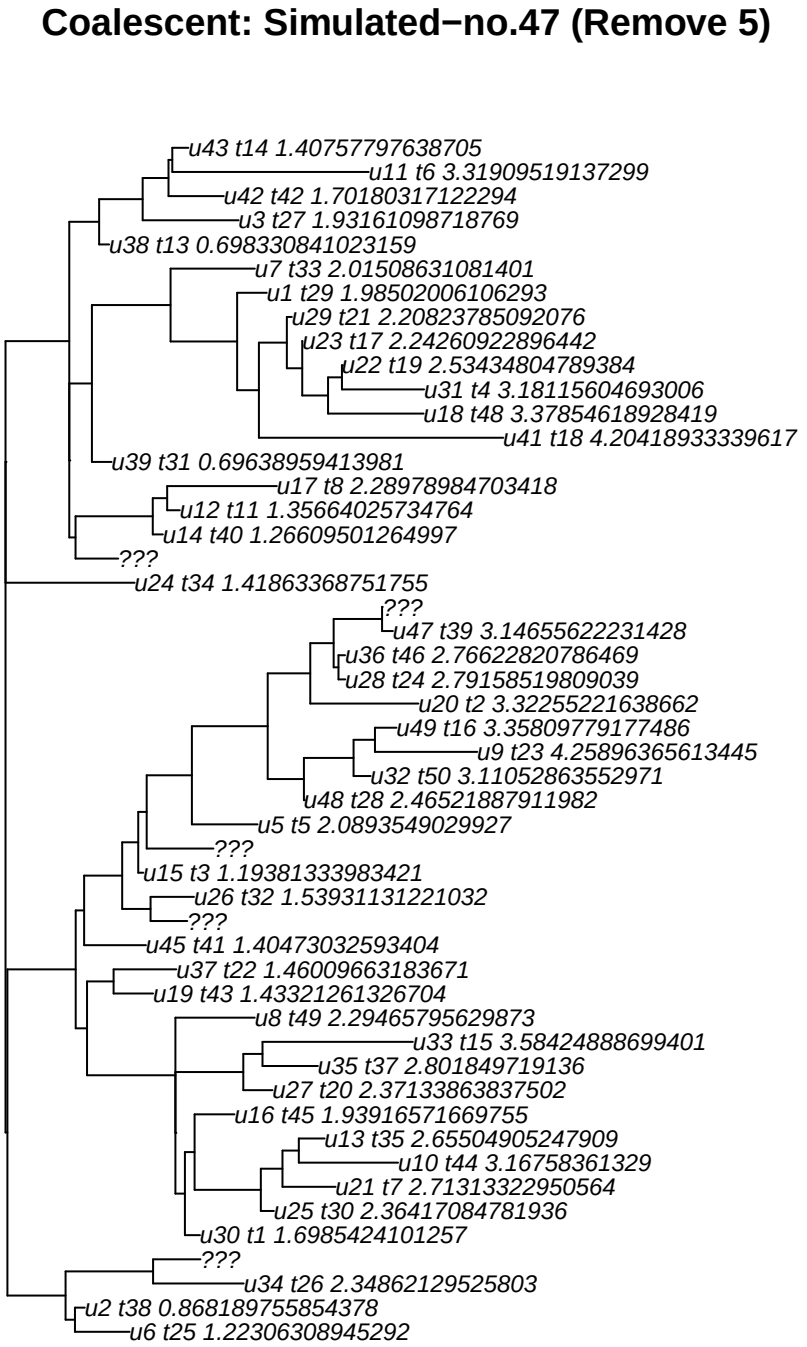

Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0332666)
0
1
2
3
4
5
0.2026
0.09668


Coalescent: Simulated−no.45 (Remove 5)
u7 t20 0.247498329738583
u37 t29 0.41956209052182
???
u34 t41 1.71176208042349
u10 t32 2.53859647221491
u13 t50 2.4413145612956
u4 t1 4.00954632804387
u42 t12 4.5139067079656
u50 t47 3.90106422334086
u36 t11 4.43002211596853
u5 t13 4.43754562893219
???
u30 t49 4.32251161977055
u23 t28 4.63155694326388
u15 t17 4.50785033550028
u28 t7 4.81410497161935
u47 t27 3.77200952950084
u20 t5 4.57011716663257
u24 t9 3.98938819026079
u39 t10 4.55968168980834
u22 t45 4.85511534291257
u25 t2 3.17381104087538
u41 t3 2.76918468453288
u44 t24 2.79838224406788
u48 t31 2.56480967470072
u11 t44 3.74479706056185
u8 t21 3.89138191504624
u21 t37 3.8790901471453
u19 t14 4.92997061633593
u29 t4 4.71827636535474
u16 t36 4.01106646283624
u26 t40 4.79766856705015
u2 t25 3.1116659732505
u38 t48 3.31096348826178
u35 t42 2.2326682242586
u9 t6 1.68756144632526
u27 t26 1.8737329013589
u6 t30 1.17921113880087
u12 t23 1.29059012929911
u46 t43 0.702097748967041
u49 t8 0.684999086025397
u18 t34 0.745858847788816
u33 t18 0.749140745844549
u31 t15 0.75650365751626
???
???
u14 t22 1.52346348057591
u43 t39 1.50888497470668
u1 t35 1.21077090462906
???

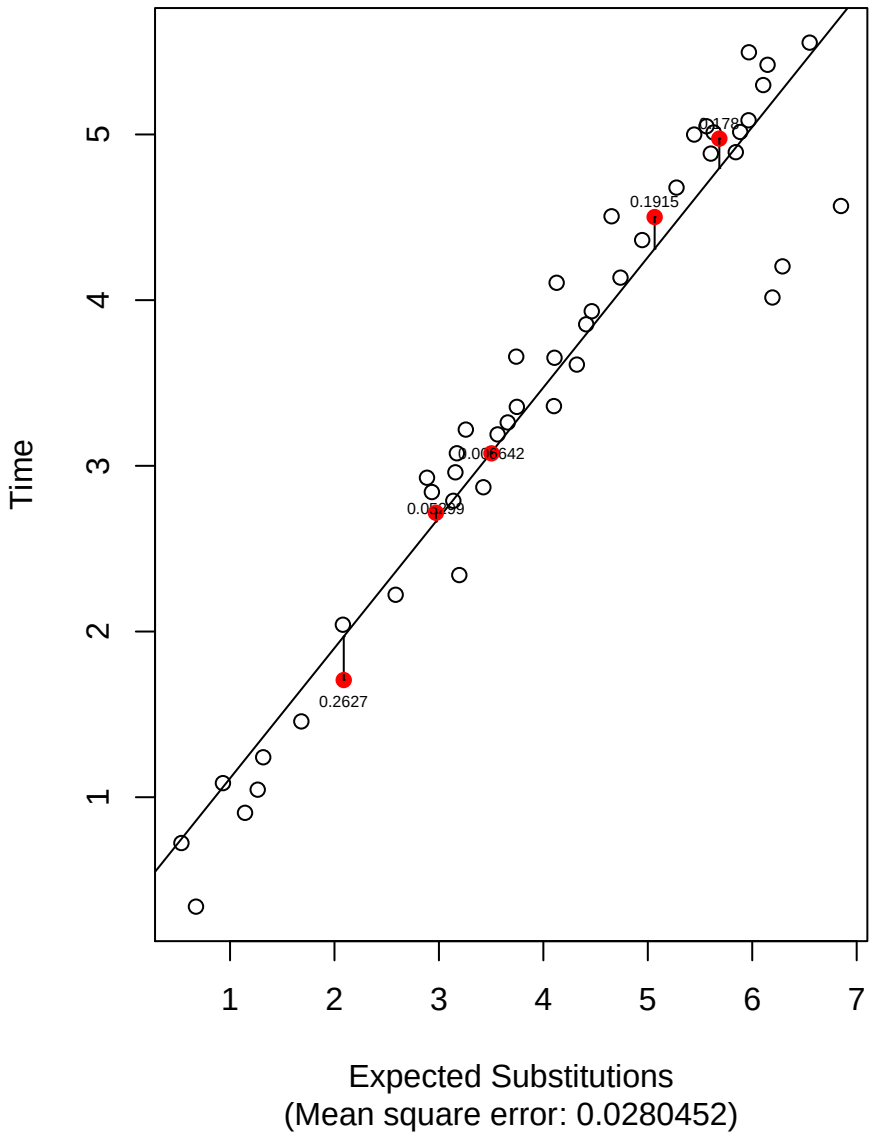

Time vs Distance
Time
0
1
2
3
4
5
Expected Substitutions
(Mean square error: 0.0227733)


Coalescent: Simulated−no.46 (Remove 5)
u24 t40 0.194655493379726
u18 t37 2.61555881271202
???
???
u40 t14 4.90038851754938
u20 t5 4.32230099482979
u21 t48 5.28394229374986
???
u2 t42 4.90815078739284
u5 t16 5.00235200896853
u15 t24 5.03599576220422
u34 t26 5.14491708093388
u13 t4 4.80981248813696
u14 t1 4.95978262287111
u22 t36 5.10691864618009
u47 t21 4.61431601900806
u9 t23 5.20204840217013
u43 t22 3.89949685263842
u6 t41 3.53139738993221
u28 t18 4.34699118285948
u8 t38 4.81567610526118
u49 t13 4.25743071600948
u10 t11 3.79784392768684
u7 t8 3.30158240968945
u12 t35 2.99048452021521
u4 t43 4.45169757173545
u46 t17 4.58567138193237
u44 t27 3.80137885099444
u38 t25 5.39578410034042
u1 t2 5.1583119801019
???
u23 t50 4.48187460475385
u3 t47 4.23138136125226
u37 t30 4.23820536971162
u48 t29 3.62375405282046
u29 t9 3.7922238421357
u27 t7 4.06890721840226
u42 t3 3.23332676222572
u36 t33 3.88293270107088
u33 t6 2.32134470137091
u11 t12 2.32809430759655
u50 t19 3.2307794093563
u25 t34 4.20487433889952
u39 t39 5.37257332267458
u30 t44 5.10418898910309
u31 t32 5.14834462135719
u19 t20 4.33172198847842
u41 t10 3.69771537727352
u32 t15 1.29106679080949
???

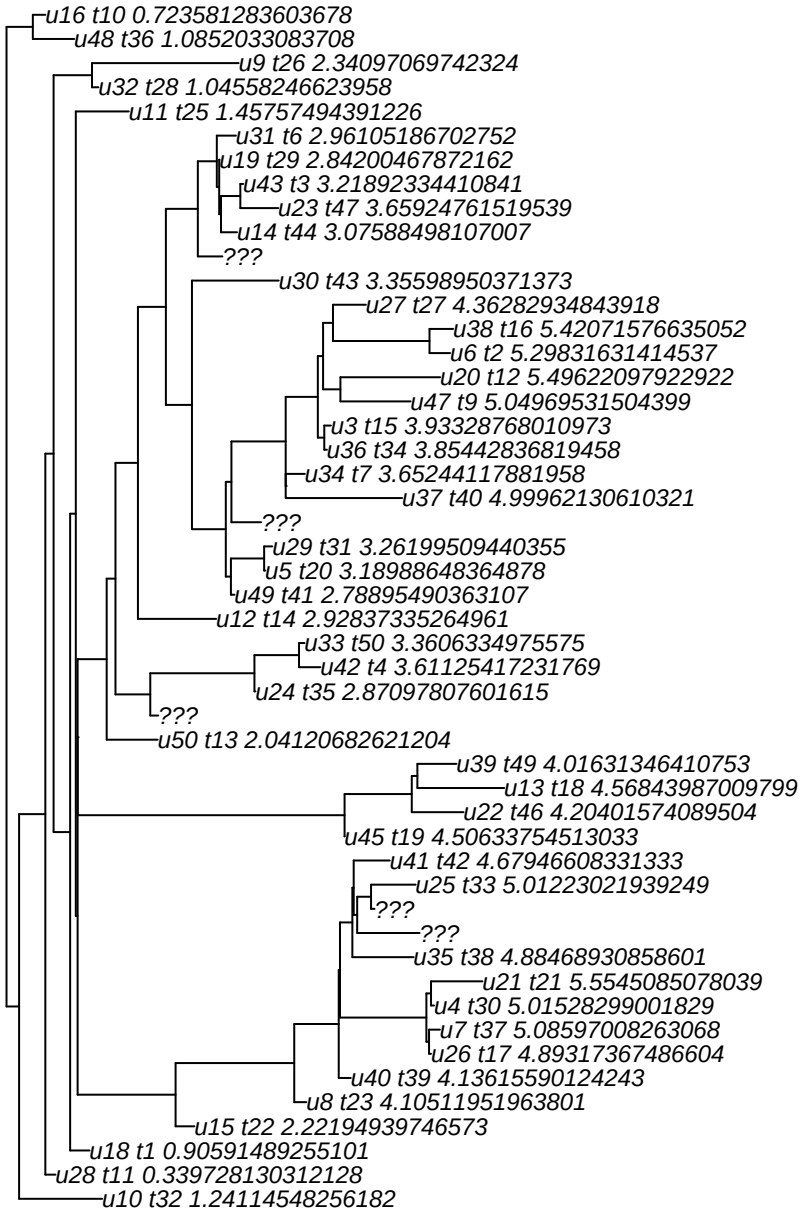

Time vs Distance
Time
1.0
1.5
2.0
2.5
3.0
3.5
4.0
1
2
3
4
0.4091
0.06592
0.05134
0.04908
0.02021
Expected Substitutions
(Mean square error: 0.0435205)

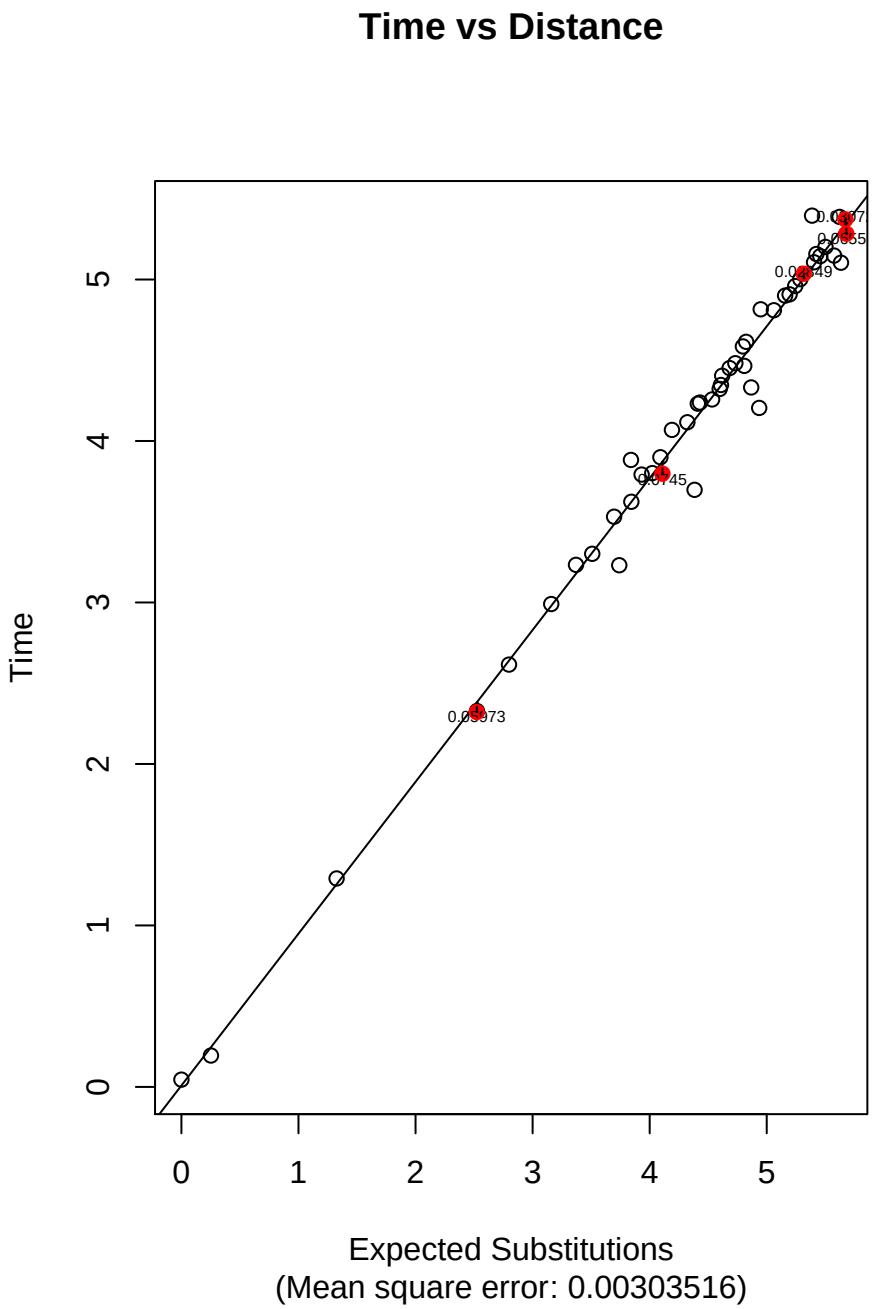

Coalescent: Simulated−no.47 (Remove 5)
u43 t14 1.40757797638705
u11 t6 3.31909519137299
u42 t42 1.70180317122294
u3 t27 1.93161098718769
u38 t13 0.698330841023159
u7 t33 2.01508631081401
u1 t29 1.98502006106293
u29 t21 2.20823785092076
u23 t17 2.24260922896442
u22 t19 2.53434804789384
u31 t4 3.18115604693006
u18 t48 3.37854618928419
u41 t18 4.20418933339617
u39 t31 0.69638959413981
u17 t8 2.28978984703418
u12 t11 1.35664025734764
u14 t40 1.26609501264997
???
u24 t34 1.41863368751755
???
u47 t39 3.14655622231428
u36 t46 2.76622820786469
u28 t24 2.79158519809039
u20 t2 3.32255221638662
u49 t16 3.35809779177486
u9 t23 4.25896365613445
u32 t50 3.11052863552971
u48 t28 2.46521887911982
u5 t5 2.0893549029927
???
u15 t3 1.19381333983421
u26 t32 1.53931131221032
???
u45 t41 1.40473032593404
u37 t22 1.46009663183671
u19 t43 1.43321261326704
u8 t49 2.29465795629873
u33 t15 3.58424888699401
u35 t37 2.801849719136
u27 t20 2.37133863837502
u16 t45 1.93916571669755
u13 t35 2.65504905247909
u10 t44 3.16758361329
u21 t7 2.71313322950564
u25 t30 2.36417084781936
u30 t1 1.6985424101257
???
u34 t26 2.34862129525803
u2 t38 0.868189755854378
u6 t25 1.22306308945292

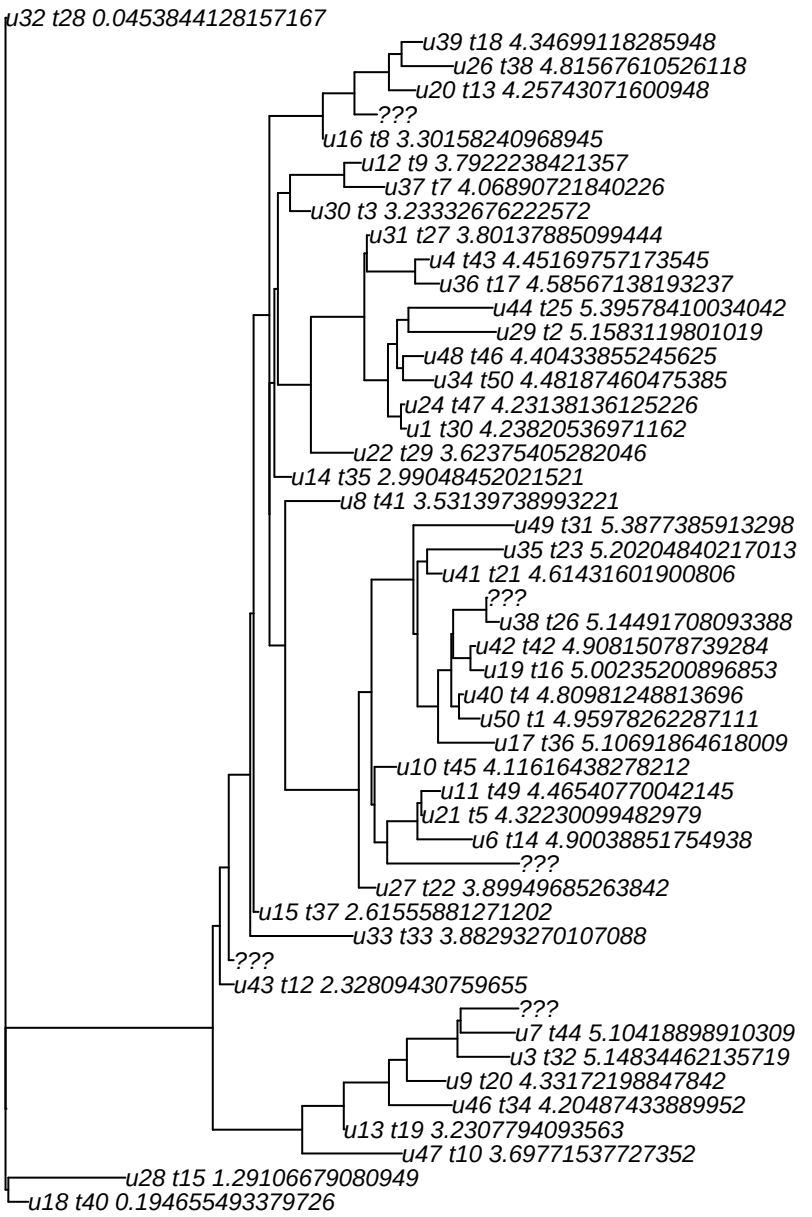
Time vs Distance

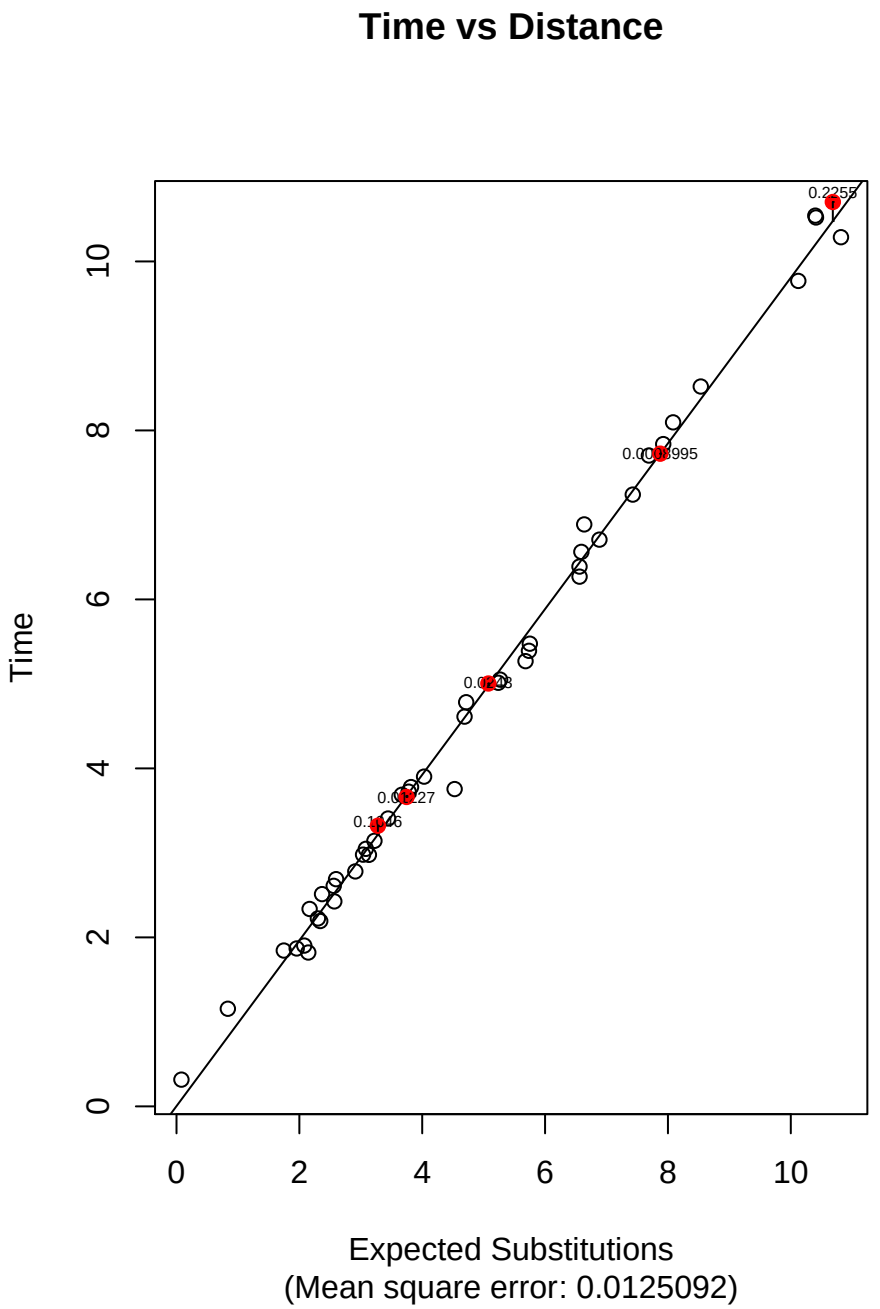


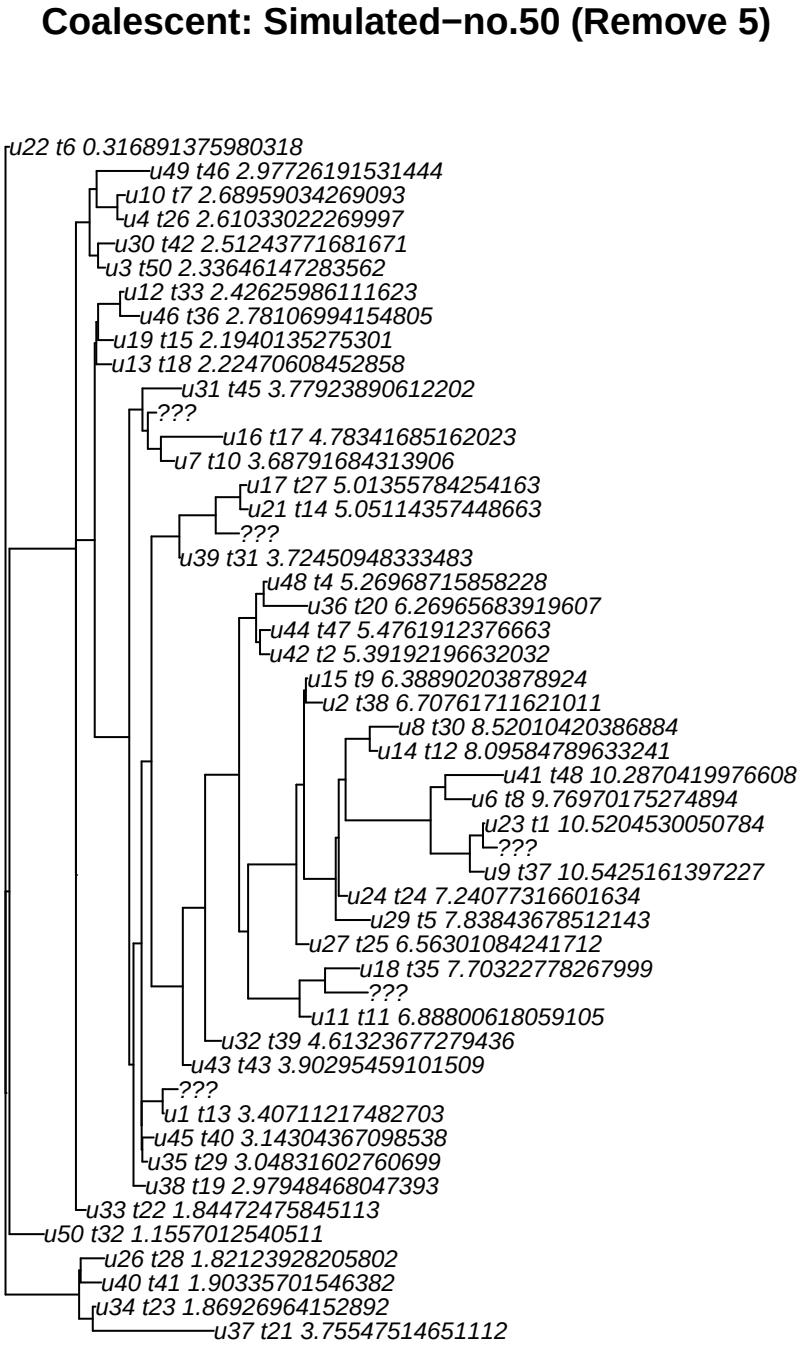
Coalescent: Simulated−no.48 (Remove 5)

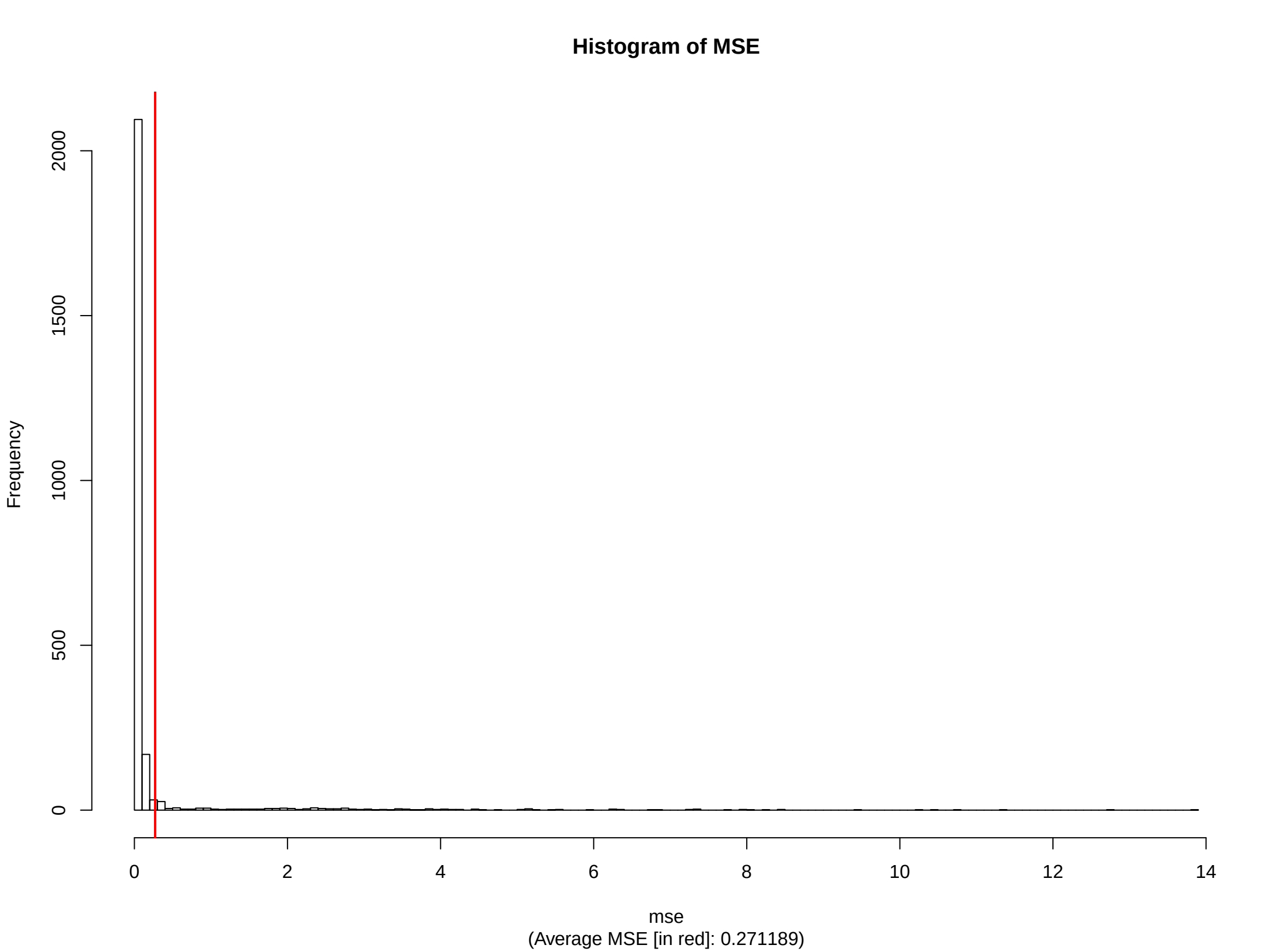



Time vs Distance
Time
0
1
2
3
4
5
Expected Substitutions
(Mean square error: 0.00303516)


Coalescent: Simulated−no.49 (Remove 5)
u32 t28 0.0453844128157167
u39 t18 4.34699118285948
u26 t38 4.81567610526118
u20 t13 4.25743071600948
???
u16 t8 3.30158240968945
u12 t9 3.7922238421357
u37 t7 4.06890721840226
u30 t3 3.23332676222572
u31 t27 3.80137885099444
u4 t43 4.45169757173545
u36 t17 4.58567138193237
u44 t25 5.39578410034042
u29 t2 5.1583119801019
u48 t46 4.40433855245625
u34 t50 4.48187460475385
u24 t47 4.23138136125226
u1 t30 4.23820536971162
u22 t29 3.62375405282046
u14 t35 2.99048452021521
u8 t41 3.53139738993221
u49 t31 5.3877385913298
u35 t23 5.20204840217013
u41 t21 4.61431601900806
???
u38 t26 5.14491708093388
u42 t42 4.90815078739284
u19 t16 5.00235200896853
u40 t4 4.80981248813696
u50 t1 4.95978262287111
u17 t36 5.10691864618009
u10 t45 4.11616438278212
u11 t49 4.46540770042145
u21 t5 4.32230099482979
u6 t14 4.90038851754938
???
u27 t22 3.89949685263842
u15 t37 2.61555881271202
u33 t33 3.88293270107088
???
u43 t12 2.32809430759655
???
u7 t44 5.10418898910309
u3 t32 5.14834462135719
u9 t20 4.33172198847842
u46 t34 4.20487433889952
u13 t19 3.2307794093563
u47 t10 3.69771537727352
u28 t15 1.29106679080949
u18 t40 0.194655493379726


Time vs Distance
Time
Expected Substitutions
(Mean square error: 0.0125092)
0
2
4
6
8
10
0.2255
0.0008995


Coalescent: Simulated−no.50 (Remove 5)
u22 t6 0.316891375980318
u49 t46 2.97726191531444
u10 t7 2.68959034269093
u4 t26 2.61033022269997
u30 t42 2.51243771681671
u3 t50 2.33646147283562
u12 t33 2.42625986111623
u46 t36 2.78106994154805
u19 t15 2.1940135275301
u13 t18 2.22470608452858
u31 t45 3.77923890612202
???
u16 t17 4.78341685162023
u7 t10 3.68791684313906
u17 t27 5.01355784254163
u21 t14 5.05114357448663
???
u39 t31 3.72450948333483
u48 t4 5.26968715858228
u36 t20 6.26965683919607
u44 t47 5.4761912376663
u42 t2 5.39192196632032
u15 t9 6.38890203878924
u2 t38 6.70761711621011
u8 t30 8.52010420386884
u14 t12 8.09584789633241
u41 t48 10.2870419976608
u6 t8 9.76970175274894
u23 t1 10.5204530050784
???
u9 t37 10.5425161397227
u24 t24 7.24077316601634
u29 t5 7.83843678512143
u27 t25 6.56301084241712
u18 t35 7.70322778267999
???
u11 t11 6.88800618059105
u32 t39 4.61323677279436
u43 t43 3.90295459101509
???
u1 t13 3.40711217482703
u45 t40 3.14304367098538
u35 t29 3.04831602760699
u38 t19 2.97948468047393
u33 t22 1.84472475845113
u50 t32 1.1557012540511
u26 t28 1.82123928205802
u40 t41 1.90335701546382
u34 t23 1.86926964152892
u37 t21 3.75547514651112


Histogram of MSE
Frequency
0
500
1000
1500
2000
0
2
4
6
8
10
12
14
mse
(Average MSE [in red]: 0.271189)