

Supplementary Table 1. Features of step and impulse responses for person-specific models for weekends.

| ID | mm_we_ss | mm_we_rt | mm_we_st | mm_we_eft | mm_we_pmag | mm_we_pdel | sl_we_ss | sl_we_rt | sl_we_st | sl_we_eft | sl_we_pmag | sl_we_pdel | cn_we_ss | cn_we_rt | cn_we_st | cn_we_eft | cn_we_pmag | cn_we_pdel |
|--------|----------|----------|----------|-----------|------------|------------|----------|----------|----------|-----------|------------|------------|----------|----------|----------|-----------|------------|------------|
| aim101 | 152.05 | 120 | 195 | 15 | 47.44 | 60 | -142.24 | 60 | 135 | 600 | 48.8 | 45 | -189.38 | 75 | 150 | 600 | 59.04 | 0 |
| aim102 | 178.87 | 30 | 105 | 600 | 59.26 | 15 | -49.76 | 0 | 165 | 600 | 46.24 | 0 | -279.07 | 105 | 180 | 600 | 70.29 | 0 |
| aim103 | -75.22 | 210 | 255 | 75 | 37.16 | 60 | 75.79 | 135 | 165 | 600 | 24.04 | 15 | -144.85 | 165 | 225 | 60 | 60.5 | 0 |
| aim105 | -55.05 | 15 | 225 | 15 | 35.25 | 30 | 219.16 | 225 | 285 | 600 | 55.79 | 0 | -287.08 | 180 | 270 | 600 | 64.11 | 0 |
| aim108 | -226.68 | 150 | 180 | 15 | 46.51 | 45 | -287.12 | 150 | 180 | 15 | 81.93 | 45 | -236.17 | 90 | 165 | 15 | 60.48 | 0 |
| aim109 | 5.02 | 0 | 240 | 45 | 28.03 | 30 | -101.8 | 120 | 150 | 600 | 50.29 | 0 | -25.16 | 105 | 240 | 60 | 34.4 | 0 |
| aim110 | -160.92 | 30 | 135 | 15 | 63.08 | 15 | 155.97 | 120 | 225 | 75 | 84.32 | 60 | -265.4 | 90 | 195 | 30 | 76.32 | 30 |
| aim111 | 125.33 | 135 | 150 | 15 | 52.36 | 60 | 157.08 | 90 | 135 | 15 | 45.59 | 30 | -98.03 | 30 | 105 | 15 | 59.94 | 30 |
| aim112 | -147.6 | 30 | 75 | 600 | 73.01 | 0 | 176.61 | 105 | 135 | 600 | 44.46 | 45 | 29.42 | 15 | 180 | 600 | 61.12 | 0 |
| aim113 | 232.56 | 135 | 210 | 600 | 54.58 | 15 | -95.45 | 120 | 165 | 600 | 30.13 | 0 | -306.52 | 135 | 210 | 600 | 58.72 | 45 |
| aim114 | -10.77 | 105 | 270 | 75 | 48.89 | 0 | 168.25 | 105 | 150 | 600 | 52.06 | 15 | -106.96 | 75 | 120 | 600 | 50.24 | 15 |
| aim115 | 139.79 | 15 | 105 | 600 | 68.42 | 0 | 42.37 | 0 | 135 | 180 | 44.85 | 15 | -467.42 | 75 | 120 | 600 | 111.91 | 60 |
| aim116 | 116.36 | 105 | 120 | 30 | 36.09 | 0 | 160.99 | 105 | 120 | 30 | 55.62 | 0 | -68.91 | 60 | 75 | 45 | 95.39 | 30 |
| aim117 | 114.32 | 90 | 180 | 45 | 67.75 | 45 | 162.56 | 120 | 150 | 30 | 38.29 | 60 | 188.84 | 90 | 120 | 120 | 50.06 | 0 |
| aim118 | 55.84 | 15 | 195 | 390 | 57.59 | 15 | 55.74 | 120 | 225 | 60 | 65.12 | 45 | 14.25 | 0 | 240 | 105 | 39.84 | 0 |
| aim119 | -28.7 | 135 | 180 | 15 | 26.65 | 30 | -69.01 | 90 | 165 | 15 | 16.75 | 60 | 54.68 | 120 | 165 | 15 | 49.51 | 30 |
| aim120 | 5.7 | 15 | 165 | 30 | 30.53 | 0 | 131.3 | 90 | 195 | 15 | 63.68 | 60 | 108.29 | 120 | 180 | 15 | 28.83 | 60 |
| aim121 | -3.41 | 0 | 255 | 90 | 20.41 | 60 | -51.62 | 15 | 165 | 600 | 45.47 | 30 | 9.72 | 0 | 180 | 120 | 25.26 | 30 |
| aim122 | 132.62 | 120 | 180 | 15 | 53.34 | 45 | 182.59 | 120 | 195 | 15 | 47.43 | 45 | 65.2 | 30 | 90 | 90 | 40.09 | 0 |
| aim123 | 147.63 | 105 | 135 | 15 | 40.91 | 60 | 9.34 | 0 | 180 | 15 | 38 | 0 | 497.47 | 75 | 150 | 15 | 167.43 | 60 |
| aim124 | 76.49 | 105 | 180 | 15 | 46.92 | 15 | -251.21 | 165 | 225 | 15 | 33.84 | 60 | -181.91 | 165 | 240 | 15 | 43.34 | 60 |
| aim125 | 146.5 | 210 | 255 | 30 | 31.41 | 60 | -107.2 | 165 | 240 | 15 | 23.49 | 30 | -139.9 | 165 | 255 | 600 | 37.18 | 60 |
| aim126 | 273.81 | 135 | 180 | 345 | 52.78 | 0 | 155.66 | 150 | 195 | 15 | 51.69 | 45 | 138.87 | 135 | 255 | 15 | 48.05 | 60 |
| aim127 | 18.76 | 0 | 135 | 60 | 20.59 | 0 | -28.46 | 90 | 120 | 30 | 8.94 | 30 | -34.67 | 0 | 75 | 15 | 19.67 | 45 |
| aim128 | -338.48 | 105 | 180 | 600 | 77.88 | 60 | 238.01 | 120 | 150 | 600 | 64.02 | 30 | 77.77 | 15 | 165 | 600 | 87.32 | 0 |
| aim130 | -45.66 | 0 | 135 | 30 | 49.17 | 0 | 136.66 | 135 | 165 | 15 | 53.08 | 60 | 300.98 | 90 | 135 | 15 | 89.43 | 15 |
| aim131 | -0.06 | 0 | 225 | 30 | 18.04 | 0 | 62.83 | 75 | 90 | 30 | 28.24 | 45 | 93.19 | 45 | 90 | 600 | 50.8 | 0 |
| aim132 | -285.89 | 210 | 330 | 30 | 48.41 | 45 | 128.8 | 255 | 315 | 45 | 35.6 | 45 | -144.67 | 195 | 360 | 75 | 54.71 | 60 |
| aim133 | -183.21 | 45 | 135 | 30 | 64.22 | 60 | 1.34 | 0 | 210 | 15 | 23.96 | 45 | 550.72 | 60 | 75 | 600 | 140.92 | 0 |
| aim134 | 92.02 | 75 | 90 | 30 | 46.01 | 30 | -8.5 | 30 | 135 | 60 | 49.87 | 0 | 45.09 | 30 | 105 | 15 | 34.52 | 15 |
| aim135 | -38.44 | 15 | 105 | 15 | 46.87 | 15 | 222.71 | 75 | 105 | 600 | 75.28 | 45 | 25.51 | 0 | 165 | 75 | 80.25 | 0 |
| aim136 | 120.81 | 90 | 150 | 30 | 81.6 | 15 | 145.09 | 90 | 135 | 600 | 45.85 | 45 | -401.48 | 75 | 150 | 600 | 111.9 | 45 |
| aim137 | 204.43 | 75 | 135 | 15 | 68.19 | 30 | 504.76 | 105 | 120 | 480 | 98.81 | 30 | -161.92 | 30 | 75 | 15 | 70.97 | 30 |
| aim138 | -174.08 | 90 | 120 | 420 | 44.8 | 0 | -101.25 | 30 | 75 | 150 | 44.5 | 0 | 128.81 | 15 | 75 | 15 | 111.32 | 15 |
| aim139 | 47.21 | 15 | 165 | 15 | 72.8 | 15 | 363.94 | 75 | 90 | 240 | 106.42 | 30 | 501.6 | 60 | 60 | 435 | 197.33 | 15 |
| aim140 | 34.46 | 105 | 150 | 15 | 14.17 | 15 | -95.77 | 30 | 120 | 225 | 37.45 | 15 | -129.96 | 45 | 75 | 30 | 57.24 | 30 |
| aim141 | 332.93 | 60 | 150 | 600 | 105.16 | 60 | -180.07 | 60 | 165 | 600 | 69.74 | 60 | -176.86 | 90 | 135 | 600 | 42.28 | 0 |
| aim142 | 113.85 | 135 | 180 | 15 | 48.01 | 45 | 301 | 135 | 165 | 255 | 59 | 0 | 327.15 | 120 | 195 | 15 | 78.06 | 15 |
| aim143 | 365.11 | 60 | 120 | 600 | 95.26 | 30 | -21.44 | 165 | 195 | 15 | 24.81 | 0 | -203.05 | 60 | 150 | 15 | 52.97 | 60 |
| aim144 | -69.2 | 150 | 180 | 15 | 28.32 | 45 | -7.69 | 105 | 270 | 120 | 32.15 | 0 | 113 | 150 | 180 | 15 | 35.08 | 60 |
| aim145 | 60.54 | 30 | 120 | 15 | 30.57 | 30 | 76.86 | 15 | 75 | 15 | 50 | 15 | 159.74 | 30 | 120 | 465 | 76.62 | 0 |
| aim146 | 273.8 | 105 | 150 | 600 | 105.45 | 0 | -135.99 | 120 | 210 | 45 | 43.36 | 45 | -82.14 | 120 | 165 | 600 | 32.46 | 45 |
| aim147 | 445.79 | 90 | 105 | 15 | 89.41 | 0 | 281.54 | 75 | 105 | 15 | 80.62 | 0 | 57.89 | 60 | 120 | 15 | 49.09 | 15 |
| aim149 | 39.61 | 60 | 165 | 45 | 29.42 | 60 | -39.24 | 15 | 150 | 60 | 38.91 | 45 | 166.19 | 60 | 135 | 30 | 65.93 | 45 |
| aim150 | -53.97 | 105 | 135 | 15 | 29.82 | 30 | -94.49 | 105 | 120 | 15 | 24.98 | 30 | -42.44 | 120 | 165 | 15 | 21.09 | 60 |

Note. we = weekend, mm = “move more” messages, sl = “sit less” messages, cn = “inspirational quote” messages. ss = steady state, rt = rise time, st = settling time, eft = effective time, pmag = peak magnitude, pdel = peak delay.

Supplementary Table 2. Features of step and impulse responses for person-specific models for weekdays.

| ID | mm_wd_ss | mm_wd_rt | mm_wd_st | mm_wd_eft | mm_wd_pmag | mm_wd_pdel | sl_wd_ss | sl_wd_rt | sl_wd_st | sl_wd_eft | sl_wd_pmag | sl_wd_pdel | cn_wd_ss | cn_wd_rt | cn_wd_st | cn_wd_eft | cn_wd_pmag | cn_wd_pdel |
|--------|----------|----------|----------|-----------|------------|------------|----------|----------|----------|-----------|------------|------------|----------|----------|----------|-----------|------------|------------|
| aim101 | 1.07 | 15 | 150 | 600 | 23.01 | 45 | 40.63 | 30 | 75 | 600 | 21.32 | 15 | -75.76 | 60 | 90 | 600 | 65.23 | 0 |
| aim102 | -263.45 | 120 | 165 | 600 | 43.41 | 60 | 13.74 | 0 | 135 | 15 | 20.88 | 0 | 6.97 | 0 | 150 | 45 | 37.34 | 0 |
| aim103 | 48.08 | 30 | 180 | 60 | 34.9 | 30 | 99.25 | 60 | 135 | 600 | 37.13 | 15 | 52.57 | 15 | 75 | 390 | 65.36 | 0 |
| aim105 | 38.63 | 60 | 135 | 165 | 15.44 | 0 | 85.83 | 150 | 210 | 600 | 23.6 | 0 | -63.36 | 75 | 150 | 465 | 34.73 | 0 |
| aim108 | -107.18 | 75 | 135 | 30 | 49.4 | 15 | -165.42 | 105 | 135 | 300 | 36.85 | 60 | 127.77 | 15 | 105 | 60 | 80.45 | 0 |
| aim109 | -55.2 | 45 | 105 | 600 | 22.26 | 15 | 18.35 | 90 | 180 | 15 | 14.82 | 60 | -34.67 | 90 | 120 | 15 | 21.7 | 15 |
| aim110 | 239.68 | 75 | 105 | 600 | 92.98 | 15 | 50.55 | 45 | 105 | 60 | 35.97 | 0 | -110.41 | 60 | 150 | 30 | 51.97 | 30 |
| aim111 | -141.64 | 75 | 135 | 15 | 43.88 | 45 | -47.46 | 30 | 90 | 15 | 19.6 | 45 | 96.19 | 75 | 150 | 45 | 44.03 | 45 |
| aim112 | 21.67 | 0 | 120 | 15 | 25.38 | 0 | 199.26 | 75 | 105 | 15 | 62.46 | 60 | 28.79 | 30 | 105 | 15 | 37.92 | 45 |
| aim113 | 97.68 | 60 | 90 | 15 | 43.15 | 30 | 180.02 | 45 | 45 | 60 | 65.5 | 0 | 136.63 | 75 | 75 | 15 | 49.41 | 45 |
| aim114 | 42.25 | 45 | 135 | 600 | 33.95 | 60 | 62.52 | 45 | 120 | 600 | 41.58 | 60 | -175.52 | 45 | 90 | 600 | 64.22 | 30 |
| aim115 | -59.51 | 30 | 90 | 600 | 27.04 | 15 | 61.09 | 135 | 150 | 60 | 43.49 | 60 | -56.7 | 60 | 120 | 600 | 40.66 | 15 |
| aim116 | -60.76 | 75 | 150 | 15 | 27.71 | 60 | 8.19 | 0 | 135 | 60 | 50.31 | 15 | 267.67 | 75 | 105 | 600 | 70.39 | 45 |
| aim117 | 55.53 | 45 | 105 | 600 | 38.81 | 15 | -8.09 | 15 | 150 | 45 | 14.95 | 0 | -28.3 | 45 | 150 | 60 | 34.04 | 0 |
| aim118 | 16.98 | 0 | 120 | 195 | 17.18 | 0 | -1.43 | 0 | 360 | 90 | 25.56 | 15 | 86.72 | 45 | 120 | 600 | 42.93 | 15 |
| aim119 | 12.43 | 0 | 150 | 15 | 15.22 | 30 | 122.41 | 90 | 165 | 15 | 54.35 | 15 | 25.38 | 120 | 195 | 15 | 60.53 | 30 |
| aim120 | 26.37 | 15 | 165 | 15 | 15.29 | 30 | 99.65 | 120 | 195 | 15 | 24.98 | 60 | 38.28 | 135 | 180 | 15 | 17.66 | 0 |
| aim121 | 109.04 | 75 | 105 | 105 | 46.6 | 0 | 12.5 | 0 | 90 | 15 | 26.81 | 0 | 226 | 90 | 135 | 450 | 47.09 | 60 |
| aim122 | -49.22 | 105 | 135 | 600 | 16.96 | 15 | 87.34 | 90 | 120 | 600 | 30.19 | 0 | -73.79 | 45 | 105 | 600 | 23.57 | 30 |
| aim123 | 28.82 | 75 | 165 | 15 | 42.2 | 15 | 25.31 | 75 | 180 | 15 | 20.51 | 30 | 242.45 | 75 | 105 | 600 | 67.75 | 0 |
| aim124 | -1.68 | 0 | 300 | 75 | 10.98 | 60 | 15.21 | 90 | 165 | 45 | 16.73 | 0 | 50.81 | 75 | 165 | 15 | 24.81 | 45 |
| aim125 | -119.11 | 150 | 270 | 15 | 32.78 | 60 | 11.4 | 150 | 330 | 15 | 12.02 | 30 | -74.08 | 135 | 285 | 45 | 24.17 | 60 |
| aim126 | 124.93 | 90 | 135 | 15 | 30.16 | 0 | 71.7 | 105 | 120 | 15 | 40.76 | 0 | 100.13 | 105 | 150 | 15 | 34.56 | 60 |
| aim127 | -30.08 | 105 | 135 | 360 | 8.07 | 0 | 5.64 | 90 | 180 | 30 | 7.91 | 0 | -22.51 | 0 | 105 | 210 | 20.48 | 0 |
| aim128 | 19.57 | 105 | 150 | 15 | 45.41 | 60 | 7.93 | 0 | 150 | 75 | 24.34 | 0 | 66.67 | 90 | 105 | 60 | 32.14 | 0 |
| aim130 | 189.83 | 90 | 150 | 15 | 44.62 | 60 | 20.18 | 90 | 195 | 15 | 35.48 | 45 | 165.73 | 45 | 105 | 15 | 63.24 | 15 |
| aim131 | 55.53 | 45 | 75 | 15 | 26.1 | 30 | -26.42 | 45 | 105 | 15 | 11.62 | 45 | 47.21 | 30 | 105 | 15 | 20.52 | 45 |
| aim132 | 173.23 | 150 | 225 | 15 | 31.82 | 60 | -13.21 | 225 | 285 | 15 | 21.26 | 15 | -101.28 | 165 | 225 | 600 | 18.02 | 60 |
| aim133 | 44.65 | 45 | 105 | 15 | 48.36 | 45 | 65.14 | 45 | 90 | 15 | 25.28 | 60 | 92.18 | 30 | 75 | 45 | 58.88 | 30 |
| aim134 | 32.23 | 75 | 135 | 15 | 32.11 | 15 | 137.79 | 75 | 90 | 150 | 44.46 | 0 | 12.99 | 75 | 150 | 15 | 41.34 | 45 |
| aim135 | -97.53 | 60 | 135 | 45 | 43.75 | 45 | -7.38 | 15 | 150 | 15 | 12.02 | 30 | 101.22 | 75 | 120 | 15 | 41.23 | 60 |
| aim136 | 154.07 | 150 | 165 | 30 | 61.24 | 0 | 64.1 | 60 | 120 | 15 | 62.26 | 45 | -14.07 | 0 | 240 | 60 | 76.37 | 0 |
| aim137 | -81.88 | 90 | 120 | 15 | 21.7 | 15 | 12.1 | 0 | 90 | 15 | 27.8 | 0 | -167.16 | 90 | 150 | 15 | 51.67 | 60 |
| aim138 | 29.6 | 0 | 150 | 210 | 34.75 | 60 | -67.37 | 60 | 120 | 45 | 33.55 | 0 | -26.43 | 60 | 90 | 15 | 38.58 | 45 |
| aim139 | 18.95 | 120 | 165 | 15 | 35.59 | 0 | 319.36 | 75 | 105 | 315 | 108.3 | 0 | 139.68 | 15 | 90 | 15 | 110.59 | 30 |
| aim140 | 79.6 | 60 | 90 | 600 | 25.61 | 15 | 12.13 | 30 | 105 | 75 | 20.9 | 60 | -166.66 | 90 | 90 | 600 | 41.58 | 60 |
| aim141 | 95.4 | 30 | 90 | 105 | 45.7 | 0 | 54.45 | 45 | 90 | 15 | 43.52 | 45 | 59.94 | 15 | 120 | 15 | 72.23 | 30 |
| aim142 | -40.95 | 90 | 105 | 30 | 19.07 | 60 | -0.25 | 90 | 195 | 60 | 25.95 | 45 | -45.59 | 105 | 120 | 60 | 65.8 | 0 |
| aim143 | 17.96 | 0 | 195 | 75 | 63.23 | 0 | 85.04 | 90 | 120 | 15 | 27.26 | 0 | 238.63 | 45 | 105 | 600 | 109.11 | 30 |
| aim144 | -33.97 | 120 | 135 | 30 | 11.86 | 45 | -30.82 | 30 | 90 | 375 | 18.8 | 30 | 52.21 | 60 | 105 | 600 | 30.59 | 0 |
| aim145 | 75.34 | 75 | 105 | 30 | 28.91 | 60 | -9.43 | 15 | 120 | 45 | 26.42 | 60 | -186.37 | 75 | 75 | 600 | 51.07 | 0 |
| aim146 | 74.12 | 15 | 75 | 75 | 69.76 | 0 | -221.58 | 105 | 135 | 15 | 57.57 | 60 | -137.05 | 60 | 120 | 15 | 79.87 | 30 |
| aim147 | -14.86 | 15 | 120 | 600 | 65.77 | 45 | -55.35 | 0 | 90 | 600 | 58.2 | 0 | 143.4 | 45 | 75 | 600 | 74.25 | 45 |
| aim149 | 136.15 | 60 | 105 | 15 | 63.39 | 30 | 132.39 | 45 | 60 | 30 | 57.11 | 0 | -34.35 | 0 | 105 | 30 | 50.32 | 0 |
| aim150 | -29.35 | 30 | 150 | 15 | 17.91 | 15 | -148.77 | 105 | 150 | 15 | 37.42 | 45 | -73.75 | 120 | 150 | 15 | 26.66 | 30 |

Note. wd = weekday, mm = “move more” messages, sl = “sit less” messages, cn = “inspirational quote” messages. ss = steady state, rt = rise time, st = settling time, eft = effective time, pmag = peak magnitude, pdel = peak delay.