Type of the Paper (Article)

Individual human climate analysis applying  
the new clothing resistance model

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Table S1. Input data. Q0 is the solar radiation constant for clear sky conditions over a 1-hour period, and α is the corresponding dimensionless constant for the same hour. The human parameters used for the calculation are shown in Table 1.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **Solar**  **radiation con-stant (Q0)[MJ∙m2∙hour-1]** | **Di-men-sion-less cons-tant**  **(α)** | | **Air**  **tem-**  **per-**  **ature**  **(Ta)**  **[°C]** | | **Rel-**  **ative**  **sun-**  **shine**  **dura-**  **tion**  **(rsd)** | | **Cloud cover**  **(N)** | **Wind**  **gust**  **[ms-1]** | | **Aver-**  **age**  **wind**  **speed**  **[ms-1]** | **Rel-**  **ative**  **humid-**  **ity**  **[%]** | **Air pres-sure [hPa]** | **Body mass before activity [kg]** | **Body mass after activity [kg]** | **Duration of activity**  **[min]** | **Speed of walking [ms-1]** | **Average beats per minute (BPM)** |
| 1 | 2023.06.02 | 15:50 | 2.625 | | 0.37 | | 26.3 | | 0.9 | 0.3 | | 4.4 | 1.7 | 55 | 1012 | 90.0 | 89.2 | 72 | 1.68 | 98 |
| 2 | 2023.06.03 | 14:20 | 2.952 | | 0.34 | | 21.2 | | 0.7 | 0.6 | | 4.4 | 1.7 | 50 | 1019 | 90.3 | 90.0 | 60 | 1.35 | 79 |
| 3 | 2023.06.05 | 12:40 | 3.128 | | 0.35 | | 24.7 | | 1.0 | 0.6 | | 5.8 | 2.8 | 53 | 1020 | 90.7 | 90.3 | 52 | 1.38 | 85 |
| 4 | 2023.06.12 | 12:20 | 3.128 | | 0.35 | | 21.7 | | 1.0 | 0.3 | | 6.1 | 2.8 | 50 | 1015 | 90.4 | 90.1 | 61 | 1.43 | 82 |
| 5 | 2023.06.12 | 14:30 | 2.952 | | 0.34 | | 22.2 | | 1.0 | 0.4 | | 6.7 | 2.5 | 49 | 1015 | 90.8 | 90.6 | 32 | 1.38 | 87 |
| 6 | 2023.06.14 | 12:10 | 3.128 | | 0.35 | | 20.8 | | 1.0 | 0.4 | | 2.8 | 1.1 | 66 | 1016 | 89.7 | 89.5 | 46 | 1.29 | 79 |
| 7 | 2023.06.16 | 12:30 | 3.128 | | 0.35 | | 22.3 | | 0.1 | 0.8 | | 5.8 | 3.1 | 68 | 1013 | 91.7 | 91.6 | 45 | 1.34 | 83 |
| 8 | 2023.06.17 | 16:20 | 2.240 | | 0.32 | | 24.3 | | 0.5 | 0.9 | | 6.7 | 3.6 | 56 | 1013 | 90.6 | 90.3 | 44 | 1.33 | 81 |
| 9 | 2023.06.18 | 09:40 | 2.114 | | 0.34 | | 21.8 | | 1.0 | 0.0 | | 5.0 | 2.8 | 66 | 1017 | 90.4 | 90.1 | 43 | 1.34 | 79 |
| 10 | 2023.06.18 | 13:40 | 3.148 | | 0.37 | | 27.0 | | 1.0 | 0.3 | | 5.6 | 3.3 | 49 | 1016 | 90.6 | 90.3 | 43 | 1.38 | 86 |
| 11 | | 2023.06.18 | 18:20 | 1.047 | | 0.34 | | 26.8 | | 1.0 | 0.1 | | 4.7 | 2.8 | 46 | 1015 | 89.7 | 89.4 | 42 | 1.33 | 84 |
| 12 | | 2023.06.21 | 12:40 | 3.128 | | 0.35 | | 29.8 | | 0.0 | 0.9 | | 3.6 | 1.7 | 65 | 1018 | 89.9 | 89.4 | 44 | 1.36 | 81 |
| 13 | | 2023.06.23 | 18:40 | 1.047 | | 0.34 | | 27.8 | | 0.5 | 0.8 | | 14.2 | 7.5 | 62 | 1015 | 89.5 | 89.2 | 41 | 1.33 | 82 |
| 14 | | 2023.06.26 | 12:30 | 3.128 | | 0.35 | | 26.5 | | 1.0 | 0.4 | | 5.0 | 2.8 | 59 | 1016 | 89.7 | 89.3 | 36 | 1.42 | 81 |
| 15 | | 2023.06.30 | 08:50 | 1.566 | | 0.36 | | 22.0 | | 1.0 | 0.0 | | 2.2 | 1.4 | 74 | 1014 | 89.2 | 88.8 | 42 | 1.49 | 91 |
| 16 | | 2023.06.30 | 18:40 | 1.047 | | 0.34 | | 27.4 | | 0.7 | 0.5 | | 4.2 | 2.5 | 48 | 1009 | 88.5 | 88.2 | 41 | 1.53 | 89 |
| 17 | | 2023.07.02 | 19:20 | 0.440 | | 0.40 | | 25.8 | | 1.0 | 0.1 | | 6.1 | 3.3 | 54 | 1010 | 90.3 | 89.9 | 36 | 1.42 | 86 |
| 18 | | 2023.07.06 | 12:50 | 3.086 | | 0.35 | | 25.8 | | 0.8 | 0.6 | | 6.9 | 3.9 | 66 | 1017 | 89.3 | 88.9 | 44 | 1.37 | 80 |
| 19 | | 2023.07.06 | 19:20 | 0.440 | | 0.40 | | 25.2 | | 0.0 | 0.8 | | 3.9 | 2.3 | 53 | 1017 | 90.1 | 89.7 | 37 | 1.65 | 90 |
| 20 | | 2023.07.23 | 19:30 | 0.440 | | 0.40 | | 28.0 | | 0.5 | 0.3 | | 3.3 | 1.9 | 52 | 1015 | 89.2 | 89.0 | 42 | 1.10 | 84 |
| 21 | 2023.07.24 | 19:10 | 0.440 | | 0.40 | | 31.2 | | 0.0 | 1.0 | | 8.1 | 4.4 | 52 | 1006 | 89.7 | 89.4 | 43 | 1.11 | 82 |
| 22 | 2023.07.25 | 13:30 | 3.040 | | 0.34 | | 21.2 | | 0.0 | 1.0 | | 2.8 | 1.1 | 94 | 1004 | 89.5 | 89.2 | 37 | 1.27 | 83 |
| 23 | 2023.07.25 | 19:30 | 0.440 | | 0.40 | | 22.5 | | 0.0 | 0.7 | | 2.5 | 1.4 | 80 | 1004 | 89.0 | 88.9 | 38 | 1.24 | 80 |

Table S1 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **INPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **Solar**  **radiation con-stant (Q0)[MJ∙m2∙hour-1]** | **Di-men-sion-less cons-tant**  **(α)** | | **Air**  **tem-**  **per-**  **ature**  **(Ta)**  **[°C]** | | **Rel-**  **ative**  **sun-**  **shine**  **dura-**  **tion**  **(rsd)** | | **Cloud cover**  **(N)** | **Wind**  **gust**  **[ms-1]** | | **Aver-**  **age**  **wind**  **speed**  **[ms-1]** | **Rel-**  **ative**  **humid-**  **ity**  **[%]** | **Air pres-sure [hPa]** | **Body mass before activity [kg]** | **Body mass after activity [kg]** | **Duration of activity**  **[min]** | **Speed of walking [ms-1]** | **Average beats per minute (BPM)** |
| 24 | 2023.07.28 | 18:30 | 0.959 | | 0.43 | | 28.2 | | 0.0 | 0.7 | | 5.0 | 2.8 | 58 | 1012 | 88.7 | 88.3 | 42 | 1.40 | 81 |
| 25 | 2023.07.29 | 18:50 | 0.959 | | 0.43 | | 28.1 | | 0.0 | 1.0 | | 3.9 | 2.2 | 57 | 1012 | 89.0 | 88.7 | 39 | 1.18 | 79 |
| 26 | 2023.07.30 | 15:30 | 2.562 | | 0.31 | | 22.2 | | 0.0 | 0.7 | | 5.0 | 2.8 | 84 | 1013 | 90.2 | 89.6 | 50 | 1.30 | 76 |
| 27 | 2023.07.30 | 18:20 | 0.959 | | 0.43 | | 24.7 | | 0.0 | 0.5 | | 4.7 | 2.5 | 72 | 1012 | 90.0 | 89.6 | 39 | 1.21 | 74 |
| 28 | 2023.07.31 | 16:20 | 2.144 | | 0.28 | | 26.0 | | 0.8 | 0.7 | | 6.1 | 3.0 | 50 | 1014 | 89.1 | 88.7 | 40 | 1.28 | 82 |
| 29 | 2023.07.31 | 18:50 | 0.959 | | 0.43 | | 24.0 | | 0.5 | 0.7 | | 3.6 | 2.5 | 55 | 1013 | 88.6 | 88.5 | 34 | 1.33 | 81 |
| 30 | 2023.08.01 | 15:30 | 2.290 | | 0.45 | | 28.5 | | 0.0 | 0.9 | | 6.4 | 3.6 | 50 | 1005 | 89.1 | 88.8 | 35 | 1.33 | 81 |
| 31 | 2023.08.01 | 16:50 | 1.905 | | 0.31 | | 28.0 | | 0.0 | 1.0 | | 5.0 | 3.1 | 51 | 1004 | 89.1 | 88.9 | 34 | 1.36 | 80 |
| 32 | 2023.08.02 | 18:30 | 0.670 | | 0.33 | | 26.0 | | 0.6 | 0.5 | | 5.8 | 3.1 | 44 | 1007 | 87.8 | 87.5 | 37 | 1.30 | 93 |
| 33 | 2023.08.13 | 15:40 | 2.290 | | 0.45 | | 29.5 | | 1.0 | 0.0 | | 4.7 | 1.4 | 51 | 1021 | 88.5 | 88.3 | 37 | 1.24 | 94 |
| 34 | | 2023.08.16 | 19:45 | 0.209 | | 0.38 | | 24.5 | | 0.0 | 0.6 | | 0.8 | 0.3 | 70 | 1019 | 90.1 | 90.0 | 32 | 1.46 | 85 |
| 35 | | 2023.08.17 | 17:50 | 1.256 | | 0.37 | | 27.2 | | 0.7 | 0.8 | | 3.9 | 2.2 | 70 | 1017 | 89.4 | 89.1 | 36 | 1.46 | 85 |
| 36 | | 2023.08.18 | 15:10 | 2.290 | | 0.45 | | 28.4 | | 0.2 | 0.9 | | 6.4 | 3.9 | 70 | 1018 | 88.8 | 88.6 | 39 | 1.20 | 89 |
| 37 | | 2023.08.19 | 18:50 | 0.670 | | 0.33 | | 27.0 | | 0.8 | 0.6 | | 0.8 | 0.3 | 76 | 1019 | 90.6 | 90.3 | 33 | 1.31 | 87 |
| 38 | | 2023.08.21 | 08:25 | 1.290 | | 0.38 | | 26.0 | | 1.0 | 0.0 | | 1.4 | 0.3 | 75 | 1021 | 90.1 | 90.0 | 35 | 1.30 | 85 |
| 39 | | 2023.08.21 | 18:20 | 0.670 | | 0.33 | | 32.1 | | 1.0 | 0.0 | | 1.4 | 0.3 | 48 | 1020 | 89.1 | 88.5 | 34 | 1.29 | 86 |
| 40 | | 2023.08.22 | 08:40 | 1.290 | | 0.38 | | 26.0 | | 1.0 | 0.0 | | 1.9 | 0.8 | 70 | 1021 | 90.0 | 89.7 | 35 | 1.26 | 81 |
| 41 | | 2023.08.23 | 17:00 | 1.256 | | 0.37 | | 32.0 | | 0.6 | 0.7 | | 7.2 | 3.9 | 48 | 1016 | 90.3 | 89.9 | 37 | 1.19 | 80 |
| 42 | | 2023.08.24 | 12:50 | 2.759 | | 0.38 | | 30.3 | | 1.0 | 0.0 | | 4.7 | 2.2 | 51 | 1018 | 90.1 | 89.6 | 39 | 1.20 | 92 |
| 43 | | 2023.08.24 | 16:50 | 1.905 | | 0.31 | | 30.9 | | 1.0 | 0.0 | | 4.2 | 1.7 | 50 | 1016 | 89.8 | 89.3 | 35 | 1.26 | 82 |
| 44 | 2023.08.25 | 16:10 | 1.905 | | 0.31 | | 33.0 | | 0.5 | 0.9 | | 4.2 | 1.9 | 38 | 1013 | 89.5 | 89.2 | 30 | 1.52 | 85 |
| 45 | 2023.08.26 | 08:20 | 1.290 | | 0.38 | | 25.0 | | 1.0 | 0.0 | | 2.5 | 1.1 | 80 | 1013 | 90.1 | 89.9 | 34 | 1.35 | 82 |
| 46 | 2023.08.26 | 14:40 | 2.608 | | 0.33 | | 36.0 | | 1.0 | 0.3 | | 6.4 | 3.3 | 34 | 1010 | 89.1 | 88.5 | 32 | 1.34 | 85 |

Table S1 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **INPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **Solar**  **radiation con-stant (Q0)[MJ∙m2∙hour-1]** | **Di-men-sion-less cons-tant**  **(α)** | | **Air**  **tem-**  **per-**  **ature**  **(Ta)**  **[°C]** | | **Rel-**  **ative**  **sun-**  **shine**  **dura-**  **tion**  **(rsd)** | | **Cloud cover**  **(N)** | **Wind**  **gust**  **[ms-1]** | | **Aver-**  **age**  **wind**  **speed**  **[ms-1]** | **Rel-**  **ative**  **humid-**  **ity**  **[%]** | **Air pres-sure [hPa]** | **Body mass before activity [kg]** | **Body mass after activity [kg]** | **Duration of activity**  **[min]** | **Speed of walking [ms-1]** | **Average beats per minute (BPM)** |
| 47 | 2023.08.26 | 17:20 | 1.256 | | 0.37 | | 36.0 | | 0.5 | 0.4 | | 5.0 | 2.5 | 34 | 1010 | 89.2 | 89.0 | 36 | 1.26 | 84 |
| 48 | 2023.08.26 | 20:10 | 0.000 | | 0.00 | | 29.0 | | 0.0 | 0.0 | | 1.9 | 1.6 | 57 | 1009 | 90.1 | 89.8 | 27 | 1.41 | 86 |
| 49 | 2023.08.27 | 07:20 | 0.762 | | 0.45 | | 21.0 | | 1.0 | 0.0 | | 2.8 | 1.1 | 84 | 1010 | 90.3 | 90.0 | 30 | 1.48 | 88 |
| 50 | 2023.08.28 | 09:10 | 1.851 | | 0.37 | | 24.0 | | 0.5 | 0.9 | | 4.4 | 1.7 | 73 | 1006 | 88.8 | 88.5 | 39 | 1.24 | 78 |
| 51 | 2023.08.28 | 19:30 | 0.209 | | 0.38 | | 28.0 | | 0.0 | 0.8 | | 0.8 | 0.3 | 61 | 1001 | 88.9 | 88.8 | 30 | 1.30 | 82 |
| 52 | 2023.08.29 | 18:40 | 0.670 | | 0.33 | | 23.0 | | 0.0 | 1.0 | | 3.3 | 1.4 | 77 | 1003 | 88.5 | 88.4 | 30 | 1.60 | 85 |
| 53 | 2023.08.31 | 16:00 | 1.905 | | 0.31 | | 25.0 | | 0.7 | 0.5 | | 6.4 | 2.5 | 46 | 1014 | 86.9 | 86.8 | 32 | 1.26 | 88 |
| 54 | 2023.09.01 | 16:00 | 1.352 | | 0.40 | | 27.0 | | 1.0 | 0.7 | | 6.9 | 4.2 | 37 | 1018 | 85.5 | 85.2 | 34 | 1.29 | 89 |
| 55 | 2023.09.02 | 18:30 | 0.385 | | 0.34 | | 28.0 | | 0.9 | 0.2 | | 2.5 | 1.4 | 52 | 1020 | 85.5 | 85.3 | 36 | 1.16 | 85 |
| 56 | | 2023.09.04 | 13:40 | 2.395 | | 0.35 | | 25.0 | | 1.0 | 0.4 | | 6.9 | 2.5 | 37 | 1024 | 85.8 | 85.6 | 35 | 1.27 | 84 |
| 57 | | 2023.09.04 | 16:50 | 1.352 | | 0.40 | | 26.0 | | 0.9 | 0.4 | | 6.1 | 2.2 | 36 | 1023 | 86.3 | 86.1 | 38 | 1.20 | 81 |
| 58 | | 2023.09.05 | 11:50 | 2.282 | | 0.40 | | 24.0 | | 0.9 | 0.3 | | 6.1 | 2.5 | 45 | 1025 | 85.9 | 85.8 | 36 | 1.30 | 80 |
| 59 | | 2023.09.05 | 16:20 | 1.352 | | 0.40 | | 26.0 | | 0.3 | 0.8 | | 5.0 | 1.9 | 42 | 1023 | 86.4 | 86.1 | 35 | 1.33 | 81 |
| 60 | | 2023.10.06 | 13:40 | 1.959 | | 0.41 | | 21.0 | | 1.0 | 0.2 | | 3.9 | 1.7 | 42 | 1027 | 88.3 | 88.2 | 29 | 1.56 | 88 |
| 61 | | 2023.10.14 | 15:20 | 1.398 | | 0.35 | | 25.0 | | 1.0 | 0.0 | | 2.2 | 1.1 | 47 | 1011 | 87.7 | 87.3 | 37 | 1.19 | 86 |
| 62 | | 2023.12.06 | 15:30 | 0.348 | | 0.35 | | 2.0 | | 0.0 | 1.0 | | 1.9 | 0.6 | 98 | 1014 | 90.0 | 90.0 | 50 | 1.26 | 82 |
| 63 | | 2023.12.11 | 13:10 | 1.114 | | 0.35 | | 3.0 | | 0.6 | 0.4 | | 2.5 | 1.4 | 89 | 1011 | 91.1 | 90.8 | 71 | 1.37 | 87 |
| 64 | | 2023.12.16 | 13:50 | 1.114 | | 0.35 | | 5.0 | | 0.2 | 0.9 | | 6.7 | 3.6 | 76 | 1040 | 91.1 | 91.1 | 40 | 1.40 | 96 |
| 65 | | 2023.12.23 | 14:20 | 0.821 | | 0.30 | | 0.0 | | 0.0 | 1.0 | | 5.0 | 3.6 | 100 | 1005 | 90.4 | 90.3 | 44 | 1.54 | 89 |
| 66 | 2023.12.24 | 14:10 | 0.821 | | 0.30 | | 6.0 | | 0.0 | 0.9 | | 4.7 | 3.3 | 86 | 1010 | 91.1 | 90.9 | 40 | 1.52 | 89 |
| 67 | 2023.12.25 | 16:10 | 0.318 | | 0.05 | | 10.0 | | 0.0 | 0.9 | | 3.1 | 1.7 | 83 | 1012 | 91.9 | 91.7 | 47 | 1.29 | 83 |
| 68 | 2023.12.28 | 16:10 | 0.318 | | 0.05 | | 5.0 | | 0.0 | 1.0 | | 0.8 | 0.3 | 91 | 1022 | 92.8 | 92.6 | 45 | 1.33 | 87 |
| 69 | 2023.12.30 | 14:20 | 0.821 | | 0.30 | | 9.0 | | 0.4 | 0.7 | | 1.9 | 1.1 | 80 | 1019 | 92.0 | 91.9 | 48 | 1.19 | 89 |
| 70 | 2024.01.01 | 15:30 | 0.507 | | 0.38 | | 8.0 | | 0.1 | 0.7 | | 6.9 | 5.3 | 73 | 1012 | 91.0 | 90.8 | 40 | 1.43 | 91 |

Table S1 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **INPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **Solar**  **radiation con-stant (Q0)[MJ∙m2∙hour-1]** | **Di-men-sion-less cons-tant**  **(α)** | | **Air**  **tem-**  **per-**  **ature**  **(Ta)**  **[°C]** | | **Rel-**  **ative**  **sun-**  **shine**  **dura-**  **tion**  **(rsd)** | | **Cloud cover**  **(N)** | **Wind**  **gust**  **[ms-1]** | | **Aver-**  **age**  **wind**  **speed**  **[ms-1]** | **Rel-**  **ative**  **humid-**  **ity**  **[%]** | **Air pres-sure [hPa]** | **Body mass before activity [kg]** | **Body mass after activity [kg]** | **Duration of activity**  **[min]** | **Speed of walking [ms-1]** | **Average beats per minute (BPM)** |
| 71 | 2024.01.02 | 15:40 | 0.507 | | 0.38 | | 7.0 | | 0.0 | 1.0 | | 3.6 | 2.2 | 83 | 1010 | 90.9 | 90.7 | 42 | 1.40 | 87 |
| 72 | 2024.01.03 | 10:40 | 1.340 | | 0.43 | | 9.0 | | 0.5 | 0.4 | | 3.9 | 2.2 | 85 | 1005 | 91.0 | 91.0 | 40 | 1.27 | 83 |
| 73 | 2024.01.04 | 13:20 | 1.344 | | 0.39 | | 11.0 | | 0.0 | 1.0 | | 4.7 | 2.2 | 70 | 1004 | 89.9 | 89.8 | 43 | 1.42 | 84 |
| 74 | 2024.01.05 | 16:10 | 0.167 | | 0.25 | | 7.0 | | 0.0 | 1.0 | | 2.8 | 1.1 | 84 | 1009 | 90.2 | 90.1 | 38 | 1.53 | 92 |
| 75 | 2024.01.06 | 15:30 | 0.507 | | 0.38 | | 7.0 | | 0.0 | 1.0 | | 4.2 | 1.7 | 98 | 1005 | 91.4 | 91.4 | 43 | 1.42 | 86 |
| 76 | 2024.01.08 | 15:20 | 0.507 | | 0.38 | | -1.0 | | 0.0 | 0.6 | | 6.9 | 4.7 | 74 | 1017 | 90.2 | 90.2 | 46 | 1.47 | 92 |
| 77 | 2024.01.09 | 14:40 | 0.925 | | 0.41 | | 2.0 | | 1.0 | 0.2 | | 5.8 | 3.1 | 42 | 1032 | 90.9 | 90.7 | 35 | 1.43 | 87 |
| 78 | 2024.01.11 | 14:30 | 0.925 | | 0.41 | | 3.0 | | 0.8 | 0.7 | | 5.8 | 3.6 | 56 | 1025 | 90.6 | 90.6 | 40 | 1.39 | 87 |
| 79 | 2024.01.14 | 14:40 | 0.925 | | 0.41 | | 3.3 | | 0.5 | 0.6 | | 4.2 | 2.8 | 67 | 1010 | 91.3 | 91.3 | 40 | 1.44 | 82 |
| 80 | | 2024.01.15 | 14:50 | 0.925 | | 0.41 | | 5.8 | | 0.8 | 0.3 | | 5.8 | 2.8 | 49 | 1001 | 91.3 | 91.2 | 43 | 1.46 | 89 |
| 81 | | 2024.01.16 | 12:20 | 1.390 | | 0.47 | | 5.0 | | 1.0 | 0.3 | | 10.8 | 6.9 | 42 | 1013 | 90.3 | 90.3 | 49 | 1.46 | 85 |
| 82 | | 2024.01.18 | 15:10 | 0.507 | | 0.38 | | 5.0 | | 0.0 | 1.0 | | 1.5 | 0.8 | 100 | 994 | 90.6 | 90.5 | 50 | 1.24 | 82 |
| 83 | | 2024.01.20 | 16:20 | 0.167 | | 0.25 | | 0.9 | | 0.0 | 0.0 | | 4.2 | 3.1 | 68 | 1031 | 89.5 | 89.4 | 42 | 1.61 | 94 |
| 84 | | 2024.01.21 | 12:00 | 1.390 | | 0.47 | | 3.0 | | 1.0 | 0.0 | | 2.2 | 0.6 | 59 | 1036 | 88.9 | 88.8 | 44 | 1.31 | 90 |
| 85 | | 2024.01.22 | 11:50 | 1.503 | | 0.42 | | 0.0 | | 0.9 | 0.4 | | 5.3 | 3.6 | 79 | 1034 | 89.7 | 89.5 | 41 | 1.50 | 89 |
| 86 | | 2024.01.23 | 12:20 | 1.390 | | 0.47 | | 4.0 | | 1.0 | 0.0 | | 1.1 | 0.3 | 84 | 1027 | 89.5 | 89.3 | 44 | 1.34 | 87 |
| 87 | | 2024.01.24 | 12:20 | 1.390 | | 0.47 | | 4.0 | | 0.0 | 1.0 | | 3.3 | 1.9 | 82 | 1023 | 89.8 | 89.7 | 43 | 1.30 | 82 |
| 88 | | 2024.01.25 | 15:40 | 0.507 | | 0.38 | | 10.0 | | 1.0 | 0.3 | | 16.1 | 8.9 | 51 | 1020 | 90.1 | 90.1 | 43 | 1.34 | 84 |
| 89 | | 2024.01.26 | 11:40 | 1.503 | | 0.42 | | 7.0 | | 1.0 | 0.1 | | 10.6 | 7.5 | 64 | 1026 | 89.5 | 89.4 | 36 | 1.42 | 83 |
| 90 | 2024.01.28 | 10:40 | 1.340 | | 0.43 | | 5.0 | | 1.0 | 0.0 | | 4.2 | 2.8 | 74 | 1038 | 89.5 | 89.4 | 37 | 1.50 | 83 |
| 91 | 2024.01.30 | 10:20 | 1.340 | | 0.43 | | 1.0 | | 0.7 | 0.7 | | 1.4 | 0.6 | 92 | 1041 | 90.7 | 90.5 | 38 | 1.47 | 82 |
| 92 | 2024.01.31 | 13:10 | 1.344 | | 0.39 | | 4.0 | | 0.2 | 1.0 | | 1.9 | 1.1 | 73 | 1036 | 89.8 | 89.7 | 44 | 1.31 | 84 |
| 93 | 2024.02.01 | 15:30 | 0.507 | | 0.38 | | 7.0 | | 0.0 | 1.0 | | 3.3 | 1.4 | 81 | 1025 | 89.3 | 89.1 | 37 | 1.51 | 91 |
| 94 | 2024.02.02 | 08:40 | 0.498 | | 0.39 | | 2.5 | | 1.0 | 0.5 | | 6.4 | 3.6 | 80 | 1030 | 90.2 | 90.1 | 41 | 1.44 | 82 |

Table S1 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **Solar**  **radiation con-stant (Q0)[MJ∙m2∙hour-1]** | **Di-men-sion-less cons-tant**  **(α)** | | **Air**  **tem-**  **per-**  **ature**  **(Ta)**  **[°C]** | | **Rel-**  **ative**  **sun-**  **shine**  **dura-**  **tion**  **(rsd)** | | **Cloud cover**  **(N)** | **Wind**  **gust**  **[ms-1]** | | **Aver-**  **age**  **wind**  **speed**  **[ms-1]** | **Rel-**  **ative**  **humid-**  **ity**  **[%]** | **Air pres-sure [hPa]** | **Body mass before activity [kg]** | **Body mass after activity [kg]** | **Duration of activity**  **[min]** | **Speed of walking [ms-1]** | **Average beats per minute (BPM)** |
| 95 | 2024.02.04 | 15:10 | 0.846 | | 0.36 | | 13.5 | | 0.2 | 0.8 | | 10.6 | 6.4 | 61 | 1020 | 91.0 | 90.8 | 45 | 1.21 | 80 |
| 96 | 2024.02.06 | 12:30 | 1.897 | | 0.41 | | 15.0 | | 1.0 | 0.5 | | 5.6 | 4.2 | 59 | 1016 | 89.8 | 89.5 | 43 | 1.34 | 83 |
| 97 | 2024.02.07 | 13:50 | 1.746 | | 0.39 | | 13.0 | | 0.2 | 0.5 | | 8.3 | 6.1 | 58 | 1008 | 89.7 | 89.5 | 38 | 1.31 | 86 |
| 98 | 2024.02.08 | 12:10 | 1.897 | | 0.41 | | 13.8 | | 1.0 | 0.4 | | 2.8 | 1.1 | 69 | 1007 | 89.6 | 89.5 | 42 | 1.25 | 79 |
| 99 | 2024.02.09 | 11:40 | 1.909 | | 0.40 | | 14.0 | | 0.0 | 1.0 | | 10.3 | 6.1 | 62 | 1000 | 89.8 | 89.6 | 37 | 1.39 | 88 |
| 100 | 2024.02.10 | 13:50 | 1.746 | | 0.39 | | 18.2 | | 0.3 | 1.0 | | 8.6 | 6.1 | 42 | 998 | 90.4 | 90.2 | 42 | 1.33 | 86 |
| 101 | 2024.02.11 | 12:40 | 1.897 | | 0.41 | | 11.0 | | 0.0 | 1.0 | | 4.7 | 2.5 | 90 | 995 | 90.2 | 90.1 | 39 | 1.31 | 81 |
| 102 | 2024.02.13 | 08:10 | 0.892 | | 0.39 | | 6.5 | | 0.0 | 0.7 | | 6.1 | 3.9 | 84 | 1014 | 90.3 | 90.2 | 35 | 1.65 | 89 |
| 103 | 2024.02.14 | 08:30 | 0.892 | | 0.39 | | 1.0 | | 0.9 | 0.3 | | 1.7 | 0.8 | 93 | 1025 | 91.6 | 91.4 | 36 | 1.59 | 91 |
| 104 | | 2024.02.15 | 08:20 | 0.892 | | 0.39 | | 5.0 | | 0.0 | 1.0 | | 2.2 | 1.4 | 94 | 1025 | 91.1 | 90.9 | 43 | 1.38 | 82 |
| 105 | | 2024.02.16 | 07:40 | 0.452 | | 0.35 | | 2.0 | | 1.0 | 0.2 | | 1.1 | 0.3 | 99 | 1025 | 90.6 | 90.5 | 35 | 1.56 | 89 |
| 106 | | 2024.02.17 | 09:10 | 1.331 | | 0.42 | | 5.0 | | 1.0 | 0.2 | | 1.7 | 1.4 | 80 | 1027 | 90.8 | 90.6 | 48 | 1.25 | 81 |
| 107 | | 2024.02.18 | 10:10 | 1.712 | | 0.39 | | 10.0 | | 0.9 | 0.4 | | 4.7 | 2.5 | 72 | 1033 | 90.4 | 90.2 | 42 | 1.26 | 82 |
| 108 | | 2024.02.21 | 08:20 | 0.892 | | 0.39 | | 6.2 | | 0.5 | 0.3 | | 2.2 | 0.8 | 83 | 1025 | 91.0 | 90.8 | 36 | 1.47 | 82 |
| 109 | | 2024.02.23 | 08:50 | 0.892 | | 0.39 | | 9.1 | | 0.0 | 1.0 | | 2.8 | 1.7 | 90 | 1005 | 90.5 | 90.4 | 40 | 1.37 | 82 |
| 110 | | 2024.02.24 | 10:10 | 1.712 | | 0.39 | | 12.0 | | 0.2 | 0.9 | | 5.8 | 3.9 | 75 | 1008 | 90.4 | 90.2 | 40 | 1.38 | 84 |
| 111 | | 2024.02.25 | 08:30 | 0.892 | | 0.39 | | 4.8 | | 0.2 | 0.9 | | 1.1 | 0.3 | 98 | 1013 | 90.5 | 90.3 | 44 | 1.25 | 83 |
| 112 | | 2024.02.26 | 07:20 | 0.452 | | 0.35 | | 8.0 | | 0.0 | 1.0 | | 0.8 | 0.3 | 100 | 1008 | 90.1 | 90.0 | 42 | 1.32 | 81 |
| 113 | | 2024.02.27 | 07:40 | 0.452 | | 0.35 | | 9.1 | | 0.0 | 1.0 | | 3.3 | 1.4 | 88 | 1013 | 90.3 | 90.3 | 42 | 1.28 | 83 |
| 114 | 2024.03.02 | 09:50 | 1.858 | | 0.39 | | 9.0 | | 0.0 | 1.0 | | 3.3 | 1.7 | 97 | 1011 | 90.1 | 89.9 | 42 | 1.34 | 86 |
| 115 | 2024.03.09 | 10:40 | 2.206 | | 0.40 | | 8.0 | | 0.6 | 0.9 | | 7.5 | 4.2 | 76 | 1018 | 90.0 | 89.7 | 48 | 1.33 | 82 |

Table S2. Output data. is the net isothermal radiation energy flux density on the surface of the clothing

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OUTPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **[Wm-2]** | **S**  **[Wm-2]** | | **The numerator**  **of the fraction**  **in eq. (13)**  **[Wm-2]** | | **Energy**  **flux**  **density**  **at the**  **skin**  **surface**  **[Wm-2]** | | **M**  **[Wm-2]** | **To**  **[°C]** | | **Tcl**  **[°C]** | **ecl**  **[hPa]** | **Latentheat flux de. of dry skin surf. evap. [Wm-2]** | **Latent heat flux density of skin surface evaporation**  **[Wm-2]** | **Thermal resistance of clothing**  **[s·m-1]** | **Thermal resistance of clothing [clo]** | **Evaporative resistance of clothing**  **[s·m-1]** | **Evaporative resistance of clothing**  **[clo]** |
| 1 | 2023.06.02 | 15:50 | 414.8 | | 683.2 | | 332.7 | | -78.9 | 183.3 | | 58.0 | 51.9 | 30.1 | 216 | 226 | 273 | 1.46 | 189 | 0.66 |
| 2 | 2023.06.03 | 14:20 | 406.1 | | 657.6 | | 418.9 | | 16.7 | 155.1 | | 52.9 | 54.2 | 18.2 | 97 | 110 | -1460 | -7.82 | 592 | 2.06 |
| 3 | 2023.06.05 | 12:40 | 565.2 | | 868.9 | | 529.3 | | -32.5 | 157.7 | | 62.5 | 60.3 | 23.5 | 149 | 161 | 976 | 5.23 | 343 | 1.19 |
| 4 | 2023.06.12 | 12:20 | 537.6 | | 868.9 | | 557.3 | | 23.5 | 161.9 | | 58.1 | 59.7 | 17.8 | 95 | 108 | -1314 | -7.04 | 609 | 2.12 |
| 5 | 2023.06.12 | 14:30 | 508.3 | | 820 | | 499.1 | | -5.5 | 157.7 | | 57.7 | 57.3 | 19.2 | 121 | 134 | 5088 | 27.25 | 471 | 1.64 |
| 6 | 2023.06.14 | 12:10 | 554.4 | | 868.9 | | 577.4 | | 26.6 | 149.9 | | 69.5 | 71.8 | 21.7 | 84 | 96 | -1713 | -9.17 | 610 | 2.12 |
| 7 | 2023.06.16 | 12:30 | 215.1 | | 360.6 | | 283.5 | | 71.7 | 154.2 | | 36.2 | 41.0 | 20.6 | 43 | 54 | -117 | -0.63 | 1122 | 3.91 |
| 8 | 2023.06.17 | 16:20 | 258.5 | | 410.7 | | 236.6 | | -18.6 | 153.4 | | 40.2 | 39.1 | 22.8 | 132 | 143 | 329 | 1.76 | 392 | 1.37 |
| 9 | 2023.06.18 | 09:40 | 336.0 | | 587.2 | | 311.6 | | -20.9 | 154.2 | | 44.4 | 43.0 | 23.7 | 135 | 146 | 518 | 2.78 | 373 | 1.30 |
| 10 | 2023.06.18 | 13:40 | 549.4 | | 874.4 | | 528.0 | | -18.3 | 157.7 | | 61.7 | 60.5 | 23.5 | 135 | 146 | 1745 | 9.35 | 376 | 1.31 |
| 11 | | 2023.06.18 | 18:20 | 111.1 | | 290.8 | | 82.7 | | -25.1 | 153.4 | | 34.0 | 32.3 | 22.7 | 139 | 150 | -81 | -0.43 | 377 | 1.31 |
| 12 | | 2023.06.21 | 12:40 | 183.0 | | 304.1 | | 78.8 | | -101.8 | 155.9 | | 43.5 | 35.8 | 38.5 | 221 | 229 | 21 | 0.11 | 119 | 0.41 |
| 13 | | 2023.06.23 | 18:40 | 95.4 | | 194.9 | | 66.3 | | -26.4 | 153.4 | | 32.3 | 31.0 | 27.9 | 142 | 151 | -137 | -0.73 | 310 | 1.08 |
| 14 | | 2023.06.26 | 12:30 | 559.5 | | 868.9 | | 461.4 | | -95.1 | 161.1 | | 63.7 | 57.3 | 30.2 | 216 | 226 | 295 | 1.58 | 189 | 0.66 |
| 15 | | 2023.06.30 | 08:50 | 232.3 | | 435 | | 169.0 | | -60.0 | 167.1 | | 40.9 | 36.0 | 30.0 | 185 | 195 | 39 | 0.21 | 220 | 0.76 |
| 16 | | 2023.06.30 | 18:40 | 93.3 | | 233.2 | | 74.9 | | -15.3 | 170.5 | | 33.6 | 32.6 | 24.4 | 142 | 153 | -114 | -0.61 | 349 | 1.22 |
| 17 | | 2023.07.02 | 19:20 | -4.5 | | 122.2 | | -103.6 | | -95.9 | 161.1 | | 25.3 | 19.2 | 27.3 | 216 | 227 | -186 | -1.00 | 212 | 0.74 |
| 18 | | 2023.07.06 | 12:50 | 484.7 | | 745.8 | | 423.1 | | -58.6 | 156.8 | | 54.9 | 51.4 | 29.2 | 177 | 186 | 358 | 1.91 | 239 | 0.83 |
| 19 | | 2023.07.06 | 19:20 | -15.7 | | 48.9 | | -94.6 | | -75.5 | 180.8 | | 23.8 | 18.5 | 27.2 | 210 | 221 | -248 | -1.33 | 218 | 0.76 |
| 20 | | 2023.07.23 | 19:30 | -21.0 | | 85.6 | | -16.5 | | 7.4 | 133.7 | | 26.2 | 26.8 | 24.6 | 92 | 103 | 1177 | 6.31 | 516 | 1.80 |
| 21 | 2023.07.24 | 19:10 | 1.6 | | 48.9 | | -34.7 | | -33.8 | 134.5 | | 31.1 | 29.2 | 29.0 | 135 | 145 | -171 | -0.91 | 310 | 1.08 |
| 22 | 2023.07.25 | 13:30 | 179.8 | | 287.1 | | 131.3 | | -45.4 | 148.2 | | 36.8 | 32.8 | 33.2 | 157 | 166 | -33 | -0.17 | 223 | 0.77 |
| 23 | 2023.07.25 | 19:30 | -15.7 | | 48.9 | | 39.6 | | 58.4 | 145.7 | | 20.9 | 25.8 | 25.1 | 51 | 61 | 170 | 0.91 | 859 | 2.99 |

Table S2 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OUTPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **[Wm-2]** | **S**  **[Wm-2]** | | **The numerator**  **of the fraction**  **in eq. (13)**  **[Wm-2]** | | **Energy**  **flux**  **density**  **at the**  **skin**  **surface**  **[Wm-2]** | | **M**  **[Wm-2]** | **To**  **[°C]** | | **Tcl**  **[°C]** | **ecl**  **[hPa]** | **Latentheat flux de. of dry skin surf. evap.**  **[Wm-2]** | **Latent heat flux density of skin surface evaporation**  **[Wm-2]** | **Thermal resistance of clothing**  **[s·m-1]** | **Thermal resistance of clothing [clo]** | **Evaporative resistance of clothing**  **[s·m-1]** | **Evaporative resistance of clothing**  **[clo]** |
| 24 | 2023.07.28 | 18:30 | 28.7 | | 114.5 | | -39.1 | | -65.0 | 159.4 | | 29.9 | 25.6 | 30.6 | 185 | 194 | -156 | -0.83 | 216 | 0.75 |
| 25 | 2023.07.29 | 18:50 | 50.9 | | 114.5 | | 4.3 | | -43.8 | 140.5 | | 31.5 | 28.4 | 29.0 | 149 | 159 | -154 | -0.82 | 282 | 0.98 |
| 26 | 2023.07.30 | 15:30 | 110.8 | | 220.6 | | -11.8 | | -119.4 | 150.8 | | 29.5 | 21.4 | 33.2 | 233 | 242 | -127 | -0.68 | 153 | 0.53 |
| 27 | 2023.07.30 | 18:20 | 20.2 | | 114.5 | | -74.2 | | -91.4 | 143.1 | | 25.9 | 19.5 | 31.8 | 199 | 209 | -191 | -1.02 | 190 | 0.66 |
| 28 | 2023.07.31 | 16:20 | 310.9 | | 509.8 | | 223.9 | | -83.6 | 149.1 | | 46.2 | 40.7 | 25.6 | 194 | 205 | 96 | 0.52 | 250 | 0.87 |
| 29 | 2023.07.31 | 18:50 | 78.7 | | 190.5 | | 131.9 | | 56.5 | 153.4 | | 29.3 | 33.2 | 19.5 | 57 | 68 | 17 | 0.09 | 913 | 3.18 |
| 30 | 2023.08.01 | 15:30 | 166.7 | | 286.2 | | 111.9 | | -51.9 | 153.4 | | 38.6 | 35.4 | 26.5 | 166 | 177 | 32 | 0.17 | 280 | 0.97 |
| 31 | 2023.08.01 | 16:50 | 87.1 | | 164 | | 86.3 | | 2.2 | 155.9 | | 33.4 | 33.6 | 24.5 | 114 | 125 | 239 | 1.28 | 427 | 1.49 |
| 32 | 2023.08.02 | 18:30 | 17.1 | | 136.2 | | -32.6 | | -46.2 | 150.8 | | 26.9 | 23.9 | 21.9 | 157 | 169 | -264 | -1.41 | 343 | 1.19 |
| 33 | 2023.08.13 | 15:40 | 375.2 | | 636.1 | | 376.7 | | 4.3 | 145.7 | | 59.2 | 59.5 | 27.0 | 105 | 115 | -7126 | -38.16 | 423 | 1.47 |
| 34 | | 2023.08.16 | 19:45 | -43.3 | | 22.1 | | 16.5 | | 62.9 | 164.5 | | 19.3 | 26.4 | 26.7 | 61 | 70 | 146 | 0.78 | 699 | 2.43 |
| 35 | | 2023.08.17 | 17:50 | 162.0 | | 282.9 | | 122.2 | | -37.1 | 164.5 | | 38.6 | 35.9 | 33.2 | 162 | 170 | 63 | 0.33 | 218 | 0.76 |
| 36 | | 2023.08.18 | 15:10 | 221.7 | | 356.2 | | 228.2 | | 9.0 | 142.2 | | 41.5 | 42.1 | 31.3 | 100 | 108 | -1085 | -5.81 | 378 | 1.31 |
| 37 | | 2023.08.19 | 18:50 | 65.8 | | 161.2 | | 2.4 | | -60.9 | 151.7 | | 34.0 | 27.3 | 40.4 | 177 | 185 | -133 | -0.71 | 129 | 0.45 |
| 38 | | 2023.08.21 | 08:25 | 189.5 | | 358.3 | | 245.8 | | 58.9 | 150.8 | | 46.8 | 53.4 | 29.8 | 55 | 64 | -396 | -2.12 | 676 | 2.35 |
| 39 | | 2023.08.21 | 18:20 | 50.3 | | 186.1 | | -181.8 | | -229.6 | 149.9 | | 37.2 | 12.7 | 47.4 | 343 | 352 | -112 | -0.60 | 30 | 0.11 |
| 40 | | 2023.08.22 | 08:40 | 184.4 | | 358.3 | | 126.5 | | -55.1 | 147.4 | | 42.8 | 37.7 | 34.1 | 166 | 176 | 81 | 0.43 | 202 | 0.70 |
| 41 | | 2023.08.23 | 17:00 | 133.7 | | 261 | | 27.8 | | -103.3 | 141.4 | | 39.8 | 33.6 | 31.2 | 210 | 219 | -4 | -0.02 | 186 | 0.65 |
| 42 | | 2023.08.24 | 12:50 | 472.8 | | 766.4 | | 328.1 | | -141.9 | 142.2 | | 63.4 | 53.4 | 33.8 | 249 | 258 | 165 | 0.88 | 139 | 0.48 |
| 43 | | 2023.08.24 | 16:50 | 300.0 | | 529.2 | | 130.9 | | -166.4 | 147.4 | | 53.3 | 40.8 | 36.4 | 277 | 287 | 49 | 0.26 | 109 | 0.38 |
| 44 | 2023.08.25 | 16:10 | 208.0 | | 346.6 | | 137.8 | | -67.5 | 169.6 | | 47.9 | 43.0 | 28.7 | 194 | 205 | 160 | 0.86 | 222 | 0.77 |
| 45 | 2023.08.26 | 08:20 | 190.9 | | 358.3 | | 191.6 | | 3.4 | 155.1 | | 41.3 | 41.6 | 32.2 | 114 | 123 | -2652 | -14.20 | 316 | 1.10 |
| 46 | 2023.08.26 | 14:40 | 438.0 | | 724.4 | | 186.9 | | -248.6 | 154.2 | | 62.7 | 47.4 | 35.1 | 364 | 374 | 65 | 0.35 | 90 | 0.31 |

Table S2 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OUTPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **[Wm-2]** | **S**  **[Wm-2]** | | **The numerator**  **of the fraction**  **in eq. (13)**  **[Wm-2]** | | **Energy**  **flux**  **density**  **at the**  **skin**  **surface**  **[Wm-2]** | | **M**  **[Wm-2]** | **To**  **[°C]** | | **Tcl**  **[°C]** | **ecl**  **[hPa]** | **Latentheat flux den. of dry skin surf. evap.**  **[Wm-2]** | **Latent heat flux density of skin surface evaporation**  **[Wm-2]** | **Thermal resistance of clothing**  **[s·m-1]** | **Thermal resistance of clothing [clo]** | **Evaporative resistance of clothing**  **[s·m-1]** | **Evaporative resistance of clothing**  **[clo]** |
| 47 | 2023.08.26 | 17:20 | 89.0 | | 239 | | 89.0 | | 2.4 | 147.4 | | 41.7 | 41.9 | 25.3 | 108 | 118 | -3920 | -20.99 | 439 | 1.53 |
| 48 | 2023.08.26 | 20:10 | -82.5 | | 0 | | -180.2 | | -95.0 | 160.2 | | 22.4 | 15.1 | 34.1 | 216 | 225 | -240 | -1.28 | 157 | 0.55 |
| 49 | 2023.08.27 | 07:20 | 74.6 | | 211.7 | | 1.7 | | -69.5 | 166.2 | | 27.3 | 21.2 | 32.6 | 194 | 204 | -223 | -1.19 | 187 | 0.65 |
| 50 | 2023.08.28 | 09:10 | 218.5 | | 352.2 | | 175.6 | | -39.9 | 145.7 | | 40.7 | 37.6 | 29.8 | 149 | 159 | 110 | 0.59 | 273 | 0.95 |
| 51 | 2023.08.28 | 19:30 | -31.0 | | 22.1 | | 15.3 | | 49.0 | 150.8 | | 24.3 | 29.7 | 28.3 | 65 | 74 | 106 | 0.57 | 623 | 2.17 |
| 52 | 2023.08.29 | 18:40 | 14.3 | | 61.4 | | 79.0 | | 67.9 | 176.5 | | 23.9 | 29.5 | 25.6 | 65 | 74 | 80 | 0.43 | 687 | 2.39 |
| 53 | 2023.08.31 | 16:00 | 224.5 | | 419.6 | | 268.9 | | 47.9 | 147.4 | | 40.4 | 43.7 | 17.8 | 61 | 72 | -244 | -1.30 | 904 | 3.15 |
| 54 | 2023.09.01 | 16:00 | 205.9 | | 375.6 | | 141.1 | | -61.2 | 149.9 | | 38.9 | 35.3 | 20.2 | 171 | 184 | 26 | 0.14 | 333 | 1.16 |
| 55 | 2023.09.02 | 18:30 | -14.6 | | 99.9 | | -21.8 | | -4.2 | 138.8 | | 26.6 | 26.3 | 25.8 | 108 | 118 | -2242 | -12.01 | 430 | 1.50 |
| 56 | | 2023.09.04 | 13:40 | 387.4 | | 665.3 | | 381.1 | | -2.6 | 148.2 | | 51.7 | 51.5 | 17.3 | 111 | 124 | 8093 | 43.34 | 538 | 1.87 |
| 57 | | 2023.09.04 | 16:50 | 159.4 | | 353 | | 157.6 | | 1.8 | 142.2 | | 37.2 | 37.3 | 17.5 | 102 | 115 | -2243 | -12.01 | 577 | 2.01 |
| 58 | | 2023.09.05 | 11:50 | 336.7 | | 595.9 | | 390.0 | | 56.9 | 150.8 | | 47.2 | 51.2 | 16.4 | 54 | 66 | -365 | -1.95 | 1031 | 3.59 |
| 59 | | 2023.09.05 | 16:20 | 103.8 | | 217.8 | | 46.8 | | -53.5 | 153.4 | | 33.5 | 29.5 | 22.8 | 166 | 178 | -101 | -0.54 | 316 | 1.10 |
| 60 | | 2023.10.06 | 13:40 | 286.5 | | 544.2 | | 342.1 | | 59.6 | 173.1 | | 43.3 | 48.0 | 14.5 | 67 | 80 | -282 | -1.51 | 895 | 3.12 |
| 61 | | 2023.10.14 | 15:20 | 178.0 | | 388.3 | | 68.8 | | -105.7 | 141.4 | | 40.1 | 30.9 | 27.3 | 210 | 222 | -35 | -0.19 | 216 | 0.75 |
| 62 | | 2023.12.06 | 15:30 | 1.9 | | 33.8 | | 102.9 | | 106.2 | 147.4 | | 1.6 | 13.7 | 8.0 | 0 | 14 | 231 | 1.24 | 5925 | 20.62 |
| 63 | | 2023.12.11 | 13:10 | 81.0 | | 229 | | 107.0 | | 31.2 | 156.8 | | 9.9 | 12.7 | 12.4 | 82 | 96 | 823 | 4.41 | 785 | 2.73 |
| 64 | | 2023.12.16 | 13:50 | 71.5 | | 148.5 | | 181.5 | | 115.2 | 159.4 | | 9.4 | 17.2 | 7.2 | 0 | 14 | 176 | 0.94 | 5981 | 20.82 |
| 65 | | 2023.12.23 | 14:20 | 27.8 | | 68.4 | | 102.3 | | 79.9 | 171.4 | | 1.5 | 7.0 | 8.7 | 44 | 59 | 408 | 2.18 | 1409 | 4.90 |
| 66 | 2023.12.24 | 14:10 | 13.4 | | 68.4 | | 34.6 | | 26.2 | 169.6 | | 6.6 | 8.4 | 13.0 | 97 | 111 | 1178 | 6.31 | 672 | 2.34 |
| 67 | 2023.12.25 | 16:10 | -34.1 | | 4.4 | | -12.2 | | 26.5 | 149.9 | | 6.8 | 9.0 | 15.4 | 83 | 96 | 1135 | 6.08 | 732 | 2.55 |
| 68 | 2023.12.28 | 16:10 | -20.5 | | 4.4 | | -0.8 | | 24.8 | 153.4 | | 1.7 | 4.9 | 16.3 | 86 | 100 | 1417 | 7.59 | 683 | 2.38 |
| 69 | 2023.12.30 | 14:20 | 37.0 | | 132.3 | | 94.3 | | 62.0 | 141.4 | | 12.0 | 17.8 | 12.5 | 40 | 54 | 314 | 1.68 | 1400 | 4.87 |
| 70 | 2024.01.01 | 15:30 | -15.6 | | 62.2 | | -0.1 | | 20.4 | 161.9 | | 6.8 | 8.0 | 12.0 | 97 | 111 | 1539 | 8.24 | 688 | 2.39 |

Table S2 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OUTPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **[Wm-2]** | **S**  **[Wm-2]** | | **The numerator**  **of the fraction**  **in eq. (13)**  **[Wm-2]** | | **Energy**  **flux**  **density**  **at the**  **skin**  **surface**  **[Wm-2]** | | **M**  **[Wm-2]** | **To**  **[°C]** | | **Tcl**  **[°C]** | **ecl**  **[hPa]** | **Latentheat flux den. of dry skin surf. evap.**  **[Wm-2]** | **Latent heat flux density of skin surface evaporation**  **[Wm-2]** | **Thermal resistance of clothing**  **[s·m-1]** | **Thermal resistance of clothing [clo]** | **Evaporative resistance of clothing**  **[s·m-1]** | **Evaporative resistance of clothing**  **[clo]** |
| 71 | 2024.01.02 | 15:40 | 14.6 | | 53.5 | | 32.9 | | 23.2 | 159.4 | | 7.8 | 9.6 | 13.7 | 92 | 106 | 1269 | 6.80 | 690 | 2.40 |
| 72 | 2024.01.03 | 10:40 | 110.0 | | 266.1 | | 213.1 | | 107.8 | 148.2 | | 17.1 | 25.4 | 10.4 | 0 | 13 | 96 | 0.51 | 5968 | 20.77 |
| 73 | 2024.01.04 | 13:20 | 80.4 | | 145.6 | | 147.8 | | 72.1 | 161.1 | | 16.8 | 22.3 | 12.1 | 45 | 59 | 195 | 1.05 | 1299 | 4.52 |
| 74 | 2024.01.05 | 16:10 | -16.0 | | 11.6 | | 52.1 | | 73.0 | 170.5 | | 5.0 | 11.9 | 12.4 | 51 | 65 | 364 | 1.95 | 1167 | 4.06 |
| 75 | 2024.01.06 | 15:30 | 14.6 | | 53.5 | | 127.2 | | 117.4 | 161.1 | | 7.8 | 17.7 | 10.5 | 0 | 13 | 167 | 0.90 | 5959 | 20.74 |
| 76 | 2024.01.08 | 15:20 | -32.3 | | 53.5 | | 81.0 | | 118.9 | 165.4 | | -3.4 | 4.0 | 4.8 | 0 | 15 | 304 | 1.63 | 5987 | 20.84 |
| 77 | 2024.01.09 | 14:40 | 72.8 | | 256.9 | | 72.3 | | 5.0 | 161.9 | | 6.8 | 7.1 | 8.8 | 111 | 126 | 6465 | 34.62 | 651 | 2.27 |
| 78 | 2024.01.11 | 14:30 | 101.6 | | 226.6 | | 210.0 | | 113.8 | 158.5 | | 9.5 | 17.2 | 4.9 | 0 | 15 | 178 | 0.96 | 5981 | 20.82 |
| 79 | 2024.01.14 | 14:40 | 59.2 | | 181.1 | | 171.1 | | 117.3 | 162.8 | | 7.2 | 15.8 | 5.9 | 0 | 15 | 187 | 1.00 | 5974 | 20.79 |
| 80 | | 2024.01.15 | 14:50 | 59.4 | | 226.6 | | 127.3 | | 73.2 | 164.5 | | 9.7 | 15.0 | 7.3 | 45 | 60 | 312 | 1.67 | 1415 | 4.93 |
| 81 | | 2024.01.16 | 12:20 | 172.9 | | 386.1 | | 285.7 | | 118.1 | 164.5 | | 13.9 | 20.2 | 4.2 | 0 | 15 | 141 | 0.75 | 5999 | 20.88 |
| 82 | | 2024.01.18 | 15:10 | 15.3 | | 53.5 | | 77.0 | | 66.7 | 145.7 | | 6.1 | 13.0 | 12.3 | 39 | 52 | 379 | 2.03 | 1447 | 5.04 |
| 83 | | 2024.01.20 | 16:20 | -103.8 | | 11.6 | | -27.6 | | 81.7 | 177.4 | | -6.9 | -1.1 | 7.3 | 46 | 61 | 517 | 2.77 | 1392 | 4.85 |
| 84 | | 2024.01.21 | 12:00 | 166.3 | | 386.1 | | 225.5 | | 64.6 | 151.7 | | 21.1 | 28.4 | 8.8 | 44 | 59 | 105 | 0.56 | 1394 | 4.85 |
| 85 | | 2024.01.22 | 11:50 | 198.2 | | 393.3 | | 219.0 | | 26.3 | 167.9 | | 13.1 | 14.9 | 9.7 | 95 | 110 | 874 | 4.68 | 737 | 2.56 |
| 86 | | 2024.01.23 | 12:20 | 175.6 | | 386.1 | | 193.6 | | 23.1 | 154.2 | | 26.0 | 29.0 | 15.4 | 88 | 102 | 259 | 1.39 | 683 | 2.38 |
| 87 | | 2024.01.24 | 12:20 | 109.1 | | 181.5 | | 167.4 | | 63.6 | 150.8 | | 12.6 | 17.8 | 9.8 | 45 | 59 | 307 | 1.64 | 1353 | 4.71 |
| 88 | | 2024.01.25 | 15:40 | -2.1 | | 140.8 | | 104.2 | | 111.2 | 154.2 | | 9.7 | 15.0 | 6.7 | 0 | 14 | 206 | 1.10 | 6004 | 20.90 |
| 89 | | 2024.01.26 | 11:40 | 194.2 | | 417.5 | | 251.6 | | 62.4 | 161.1 | | 16.7 | 19.9 | 8.7 | 54 | 68 | 272 | 1.46 | 1209 | 4.21 |
| 90 | 2024.01.28 | 10:40 | 162.3 | | 372.2 | | 226.2 | | 69.0 | 167.9 | | 16.4 | 21.5 | 9.6 | 52 | 67 | 219 | 1.17 | 1210 | 4.21 |
| 91 | 2024.01.30 | 10:20 | 166.9 | | 308.6 | | 178.8 | | 17.3 | 165.4 | | 19.4 | 21.4 | 14.7 | 102 | 117 | 881 | 4.72 | 612 | 2.13 |
| 92 | 2024.01.31 | 13:10 | 116.1 | | 191.1 | | 175.9 | | 65.0 | 151.7 | | 14.7 | 20.9 | 9.6 | 44 | 59 | 242 | 1.30 | 1379 | 4.80 |
| 93 | 2024.02.01 | 15:30 | 14.6 | | 53.5 | | 27.4 | | 17.7 | 168.8 | | 7.9 | 9.4 | 15.0 | 105 | 119 | 1671 | 8.95 | 597 | 2.08 |

Table S2 continued.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OUTPUT DATA** | | | | | | | | | | | | | | | | | | | | |
| **No.**  **of**  **ob-**  **ser-**  **va-**  **tion** | **Date** | **Time** | **[Wm-2]** | **S**  **[Wm-2]** | | **The numerator**  **of the fraction**  **in eq. (13)**  **[Wm-2]** | | **Energy**  **flux**  **density**  **at the**  **skin**  **surface**  **[Wm-2]** | | **M**  **[Wm-2]** | **To**  **[°C]** | | **Tcl**  **[°C]** | **ecl**  **[hPa]** | **Latentheat flux den. of dry skin surf. evap.**  **[Wm-2]** | **Latent heat flux density of skin surface evaporation [Wm-2]** | **Thermal resistance of clothing**  **[s·m-1]** | **Thermal resistance of clothing [clo]** | **Evaporative resistance of clothing [s·m-1]** | **Evaporative resistance of clothing [clo]** |
| 94 | 2024.02.02 | 08:40 | 20.9 | | 138.3 | | 85.7 | | 70.1 | 162.8 | | 3.6 | 8.3 | 8.6 | 47 | 62 | 442 | 2.37 | 1338 | 4.66 |
| 95 | 2024.02.04 | 15:10 | 31.9 | | 114.7 | | 45.0 | | 17.5 | 143.1 | | 15.0 | 15.9 | 12.9 | 86 | 100 | 1246 | 6.67 | 749 | 2.61 |
| 96 | 2024.02.06 | 12:30 | 302.1 | | 526.9 | | 274.6 | | -23.1 | 154.2 | | 33.3 | 31.9 | 16.0 | 135 | 149 | -112 | -0.60 | 464 | 1.61 |
| 97 | 2024.02.07 | 13:50 | 97.2 | | 248.3 | | 100.5 | | 7.8 | 151.7 | | 18.0 | 18.5 | 12.8 | 102 | 116 | 2399 | 12.85 | 647 | 2.25 |
| 98 | 2024.02.08 | 12:10 | 298.0 | | 526.9 | | 354.2 | | 60.6 | 146.5 | | 40.7 | 46.2 | 14.4 | 46 | 59 | -243 | -1.30 | 1215 | 4.23 |
| 99 | 2024.02.09 | 11:40 | 127.9 | | 212.1 | | 134.0 | | 10.6 | 158.5 | | 20.7 | 21.3 | 14.1 | 105 | 118 | 1455 | 7.79 | 613 | 2.14 |
| 100 | 2024.02.10 | 13:50 | 174.3 | | 277.9 | | 188.9 | | 18.8 | 153.4 | | 27.3 | 28.3 | 12.5 | 92 | 106 | 364 | 1.95 | 712 | 2.48 |
| 101 | 2024.02.11 | 12:40 | 131.8 | | 216 | | 188.6 | | 61.2 | 151.7 | | 20.4 | 24.9 | 14.8 | 50 | 62 | 180 | 0.96 | 1140 | 3.97 |
| 102 | 2024.02.13 | 08:10 | 11.3 | | 96.6 | | 82.5 | | 76.2 | 180.8 | | 6.9 | 11.9 | 11.0 | 55 | 69 | 350 | 1.88 | 1128 | 3.93 |
| 103 | 2024.02.14 | 08:30 | 77.1 | | 232.7 | | 91.1 | | 19.3 | 175.6 | | 8.6 | 10.7 | 14.5 | 108 | 122 | 1454 | 7.79 | 586 | 2.04 |
| 104 | | 2024.02.15 | 08:20 | 46.8 | | 96.6 | | 65.8 | | 24.0 | 157.7 | | 8.7 | 10.9 | 14.3 | 90 | 104 | 1158 | 6.20 | 693 | 2.41 |
| 105 | | 2024.02.16 | 07:40 | -4.8 | | 125.6 | | 60.0 | | 70.1 | 173.1 | | 0.7 | 9.9 | 12.9 | 55 | 70 | 415 | 2.22 | 1073 | 3.73 |
| 106 | | 2024.02.17 | 09:10 | 169.1 | | 369.7 | | 188.7 | | 24.7 | 146.5 | | 19.7 | 21.9 | 12.5 | 81 | 95 | 589 | 3.15 | 793 | 2.76 |
| 107 | | 2024.02.18 | 10:10 | 237.7 | | 446.5 | | 247.4 | | 14.4 | 147.4 | | 27.2 | 28.3 | 13.9 | 92 | 106 | 479 | 2.57 | 686 | 2.39 |
| 108 | | 2024.02.21 | 08:20 | 32.2 | | 172.2 | | 39.4 | | 12.2 | 165.4 | | 9.0 | 10.3 | 16.0 | 108 | 122 | 2352 | 12.59 | 566 | 1.97 |
| 109 | | 2024.02.23 | 08:50 | 45.3 | | 96.6 | | 106.5 | | 65.8 | 156.8 | | 12.5 | 18.0 | 13.7 | 49 | 62 | 293 | 1.57 | 1187 | 4.13 |
| 110 | | 2024.02.24 | 10:10 | 139.5 | | 243.5 | | 153.0 | | 18.0 | 157.7 | | 20.6 | 21.7 | 15.1 | 97 | 110 | 823 | 4.41 | 642 | 2.23 |
| 111 | | 2024.02.25 | 08:30 | 56.9 | | 126.9 | | 69.7 | | 17.8 | 146.5 | | 11.5 | 13.8 | 17.0 | 88 | 102 | 1369 | 7.33 | 659 | 2.29 |
| 112 | | 2024.02.26 | 07:20 | 7.3 | | 43.9 | | 67.6 | | 65.0 | 152.5 | | 8.3 | 16.5 | 15.6 | 46 | 59 | 324 | 1.73 | 1177 | 4.10 |
| 113 | | 2024.02.27 | 07:40 | 6.9 | | 43.9 | | 110.7 | | 108.5 | 149.1 | | 9.3 | 18.8 | 10.9 | 0 | 13 | 168 | 0.90 | 5954 | 20.73 |
| 114 | 2024.03.02 | 09:50 | 121.8 | | 201.3 | | 137.4 | | 20.2 | 154.2 | | 18.8 | 20.4 | 16.8 | 92 | 105 | 808 | 4.33 | 640 | 2.23 |
| 115 | 2024.03.09 | 10:40 | 302.4 | | 465.7 | | 287.3 | | -10.2 | 153.4 | | 26.7 | 26.1 | 13.7 | 121 | 135 | -934 | -5.00 | 542 | 1.89 |