**Meteorological data and thermal comfort indices for the paper:**

Thorsson et al., Is Physiological Equivalent Temperature (PET) a superior screening tool for heat stress risk than Wet-Bulb Globe Temperature (WBGT) index? Eight years of data from the Gothenburg half marathon. *British Journal of Sports Medicine*. <https://doi.org/10.1136/bjsports-2019-100632>

**Meteorological data:**

Meteorological data consisted of hourly averages of air temperature (Ta), wind speed (ws), relative humidity (RH) and mean sea-level pressure (MSLP) were collected from the Swedish Meteorological and Hydrological Institute (SMHI) station 71420 (23 m.a.s.l.), located in the city center of Gothenburg. Incoming shortwave radiation (G*rad*) was collected from SMHI station 71415 also located in the City of Gothenburg. Missing meteorological data were taken from a station operated by Environment Administration, City of Gothenburg, located near station 71420, and missing MSLP data from SMHI station 72420 (Landvetter Airport). MSLP was converted to station pressure assuming a standard atmosphere.

**Thermal comfort indices**

These meteorological data were used to calculate the Tmrt, WBGT, PET and UTCI. As on-site WBGT sensors were not available the

The wet bulb globe temperature index (WBGT) was calculated following ISO 7243 as:

WBGT = 0.7Tw + 0.2Tg + 0.1Td (1)

where Tw is the natural wet-bulb temperature, Tg is the globe temperature and Td is the dry-bulb temperature. In this study, the natural wet-bulb temperature Tw was calculated according to Liljegren et al. using the *R* package *wbgt[[1]](#footnote-1)*. This calculation includes the effects of absorption of both long- and short-wave radiation by the wick. Globe temperature Tg was estimated according to Okada and Kusaka (2013) using Ta, ws and Grad. Td was assumed to be the same as Ta.

The Physiological equivalent temperature index (PET) and Universal thermal comfort index (UTCI) were calculated using the SOLWEIG 1D software (Lindberg et al., 2008). The calculations require Ta, RH, ws and Tmrt. Ta, RH and ws were used as input, whereas the Tmrt was calculated by the software using Ta, RH, incoming shortwave radiation and geographical location (latitude and longitude) represented by a generic sunlit location with the urban environment (sky-view factor = 0.6). Further calculation details are provided in the paper.

**References:**

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1. Lieblich M. R package wbgt, 2017. Available: https:// github. com/ mdljts/ wbgt [↑](#footnote-ref-1)