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Thermal Indices and Application in Biometeorology

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In order to analyze urban bioclimate and climate several input and output parameters are re-quired. For the quantification of thermal bioclimate assessment methods based on the human energy balance builds the basis of all the known thermal indices (PMV, PET, SET*, UTCI and PT). In order to calculate thermal indices, the mean radiant temperature and other meteorologi-cal parameters e.g. air temperature, air humidity and wind speed is required, which has to be available based on measurements and simulations. Usually, the input parameters have to exist in appropriate temporal and spatial resolution.
The range of application of thermal indices are diverse, incorporation in weather forecast, hu-man thermal comfort studies in different scales, assessment of urban and green spaces, climate related mortality, tourism and evaluation of extreme conditions.
Examples and applications for climate related mortality in Vienna, inclusion of thermal indices in tourism applications and quantification for the sport events will be presented.