

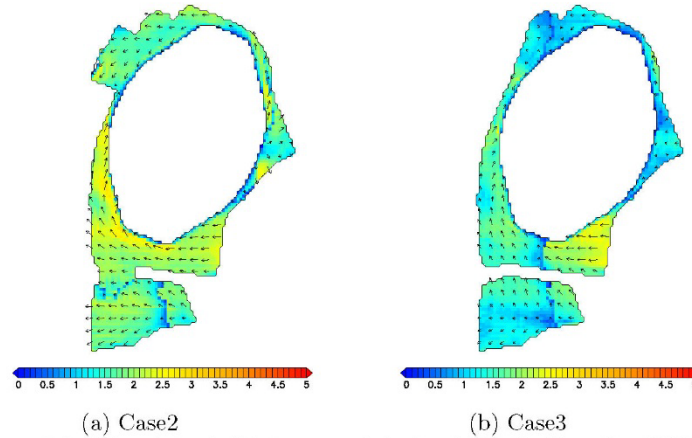


Fig. 6: Wind speed (m/s) at 2.5m height averaged during 12:20-12:30 at the NNSJ premises.

Tab. 1: Temporal and spatial average thermal conditions in the NNSJ premises during 12:20-12:30.

	Case2	Case3	Case3 – Case2
	Ave. (Max./ Min.)	Ave. (Max./Min.)	Ave. (Max./Min.)
T_{air} (°C)	34.81 (36.62/33.85)	34.35 (35.74/33.85)	-0.46 (+1.00/-2.10)
Rh (%)	40.15 (42.49/35.79)	41.53 (44.49/38.56)	+1.38 (+7.30/-2.48)
T_{wb} (°C)	24.05 (24.58/23.65)	24.00 (24.51/23.62)	-0.05 (+0.56/-0.56)
T_{globe} (°C)	44.62 (63.28/28.16)	38.99 (60.11/28.17)	-5.63 (+15.03/-22.22)
WBGT (°C)	29.31 (33.50/25.31)	28.25 (32.74/25.33)	-1.06 (+3.27/-4.59)

- (4) 森脇, 神田, 横山, 高柳, 浜田, “「神宮の森」の蒸散活動と熱収支 1996 年夏期集中観測,” 水工学論文集, 41 (1997), pp. 43-48.
- (5) 神田, 森脇, 高柳, 横山, 浜田, “明治神宮の森の気候緩和機能・大気浄化機能の評価 (1) 1996 年夏期集中観測,” 天気, 44 (1997), pp. 723-731.
- (6) 蛭田, 石川, “緑地が持つ気温低減効果の評価に向けた緑地指標に関する研究,” 都市計画論文集, 47 (2012), pp. 259-264.
- (7) Takahashi, K. et al., “Nonhydrostatic atmospheric GCM development and its computational performance,” In Proc. of 11th Workshop on the Use of High Performance Computing in Meteorology (2005), pp. 50-62.
- (8) Baba, Y. et al., “Dynamical Core of an Atmospheric General Circulation Model on a Yin-Yang Grid,” Mon. Wea. Rev., 138 (2010), pp. 3988-4005.
- (9) Onishi, R. and Takahashi, K., “A Warm-Bin - Cold-Bulk Hybrid Cloud Microphysical Model,” J. Atmos. Sci., 69 (2012), pp. 1474-1497.
- (10) Takahashi, K. et al., “Challenge toward the prediction of typhoon behavior and down pour,” J. Physics, 454 (2013), 012072.
- (11) Deardorff, J. W., “Stratocumulus-capped mixed layers derived from a three-dimensional model,” Boundary-Layer Meteor., 18 (1980), pp. 495-527.
- (12) Kondo, J., “Analysis of Solar Radiation and Downward Long-wave Radiation Data in Japan,” Sci. Reports Tohoku Univ. (Ser. 5, Geophysics), 18 (1967), pp. 91-124.
- (13) 近藤・三浦, “地表面日射量の実験式と日射計をチェックする簡便な方法,” 天気, 30 (1983), pp. 45-51.
- (14) 近藤ら, “日射量および下向き大気放射量の推定,” 天気, 38 (1991), pp. 41-48.
- (15) Shaw, R. H. and Schumann, U., “Large-eddy simulation of turbulent flow above and within a forest,” Boundary-Layer Meteor., 61 (1992), pp. 47-64.
- (16) 神田, 稲垣, 日野, “植生-大気境界面における大規模渦構造と運動量交換に関する LES モデルによる検討,” 土木学会論文集, 461 (1993), pp. 39-48.
- (17) Kanda, M. and Hino, M., “Organized structures in developing turbulent flow within and above a plant canopy, using a large eddy simulation,” Boundary-Layer Meteor., 68 (1994), pp. 237-257.
- (18) 吉田, 大岡, 持田, 富永, 村上, “樹木モデルを組み込んだ対流放射湿気輸送連成解析による樹木の屋外温熱環境緩和効果の検討,” 日本建築学会計画系論文集, 536 (2000), pp. 87-94.
- (19) 足永, 鍵屋, “地球シミュレータを用いた東京 23 区全域における高解像度のヒートアイランド数値解析,” 国総研資料, 583 (2010).
- (20) 気象庁, ヒートアイランド監視報告 (平成 19 年冬・夏ー関東・近畿地方) (2008).

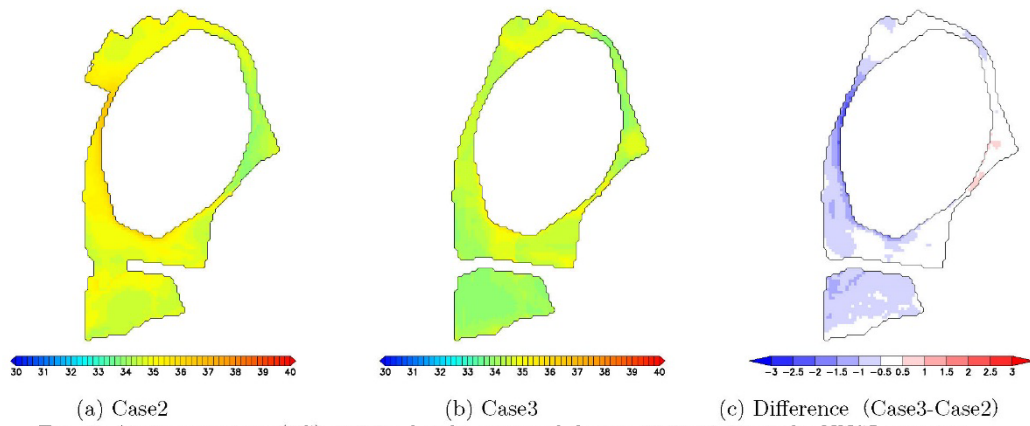


Fig. 7: Air temperature ($^{\circ}\text{C}$) at 2.5m height averaged during 12:20-12:30 at the NNSJ premises.

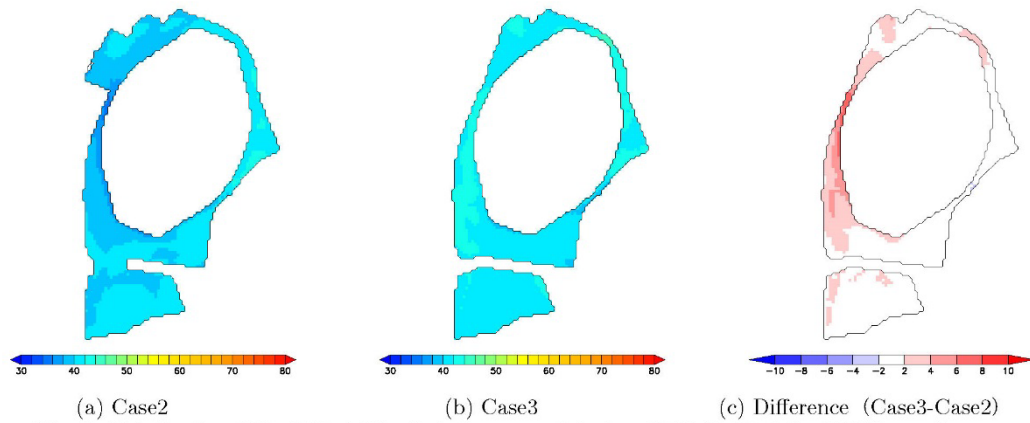


Fig. 8: Relative humidity (%) at 2.5m height averaged during 12:20-12:30 at the NNSJ premises.

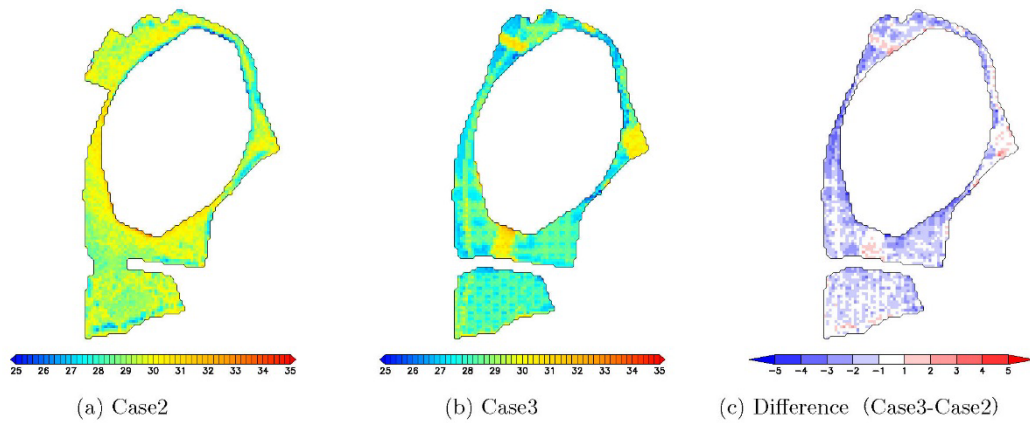


Fig. 9: WBGT index ($^{\circ}\text{C}$) averaged during 12:20-12:30 at the NNSJ premises.