

7. REFERENCES

AIJ. (2004). *Recommendations for loads on buildings.*” AIJ-RLB-2004.

Alrawashdeh, H., & Stathopoulos, T. (2015). Wind pressures on large roofs of low buildings and wind codes and standards. *Journal of Wind Engineering and Industrial Aerodynamics*, 147, 212–225.
<http://dx.doi.org/10.1016/j.jweia.2015.09.014>

ASCE/SEI 7, 2016. *Minimum Design Loads for Buildings and Other Structures.* (2016). Structural Engineering Institute of ASCE.

AS/NZS 1170.2 (2011) *Structural Design Actions, Part 2: Wind Actions*”, Australian/New Zealand Standard. (n.d.).

AWES. (1994). *Quality assurance manual—Cladding pressure and environmental wind studies.* AWESQAM-1-1994, Sydney.

Bailey, A. (1933). *Wind pressures on buildings.* The Institution of Civil Engineers.

Bailey, A., & Vincent, N. D. G. (1943). Wind pressure on buildings, including effects of adjacent buildings. *J. Inst. Or. Eng*, 20, 243.

BCJ. (2008). *Guide book on wind tunnel testing of building structures for practitioners (translated).*

Bitsuamlak, G. T., Warsido, W., Ledesma, E., & Chowdhury, A. G. (2013). Aerodynamic Mitigation of Roof and Wall Corner Suctions Using Simple Architectural Elements. *Journal of Engineering Mechanics*, 139, 396–408.

- Blocken, B., Stathopoulos, T., & Carmeliet, J. (2007). CFD simulation of the atmospheric boundary layer: Wall function problems. *Atmospheric Environment*, 41(2), 238–252. <https://doi.org/10.1016/j.atmosenv.2006.08.019>
- Boughton, G., Henderson, D. J., Ginger, J. D., Holmes, J. D., Walker, G. R., Leitch, C., Somerville, L. R., Frye, U., Jayasinghe, N. C., & Kim, P. (2011). *Tropical cyclone Yasi structural damage to buildings* (No. TR57).
- Boughton, G., & Reardon, G. F. (1982). *Simulated wind tests on a house*, (No. TR14). Cyclone testing station, James cook university.
- Boughton, G., & Reardon, G. F. (1983). *Testing a high set house designed for 42 m/s winds* (No. 19). Cyclone testing station, James cook university.
- Boughton, G., & Reardon, G. F. (1984). *Simulated wind load test on the Tongan hurricane house* (No. TR23). Cyclone testing station, James cook university.
- Bounkin, K., & Tcheremoukhin, A. (1928). Wind pressures on roofs and walls of buildings. *Central Aero-Hydrodynamical Inst.*
- Cebeci, O. Z. (1987). Strength of concrete in warm and dry environment. *Materials and Structures*, 20(4), 270–272. <https://doi.org/10.1007/BF02485923>
- Celik, I. B. (1999). *Introductory Turbulence Modeling. Lectures Notes, Mechanical & Aerospace Engineering Department, West Virginia University.*

- Cermak, J. E. (1975). Applications of fluid mechanics to wind engineering- A freeman scholar lecture. *Journal of Fluids Engineering*, 97(1), 9–38.
<https://doi.org/10.1115/1.3447225>
- Chang, C. H., & Meroney, R. N. (2003). The effect of surroundings with different separation distances on surface pressures on low-rise buildings. *Journal of Wind Engineering and Industrial Aerodynamics*, 91(8), 1039–1050.
- Chen, J. H. (2012). A Study on the Selection of Optimal Roof Type for Low-rise buildings group—In a View of Wind Pressures Action. *Procedia Engineering*, 1149–1154.
- Cook, N. J., & Mayne, J. R. (1979). A novel working approach to the assessment of wind loads for equivalent static design. *Journal of Wind Engineering and Industrial Aerodynamics*, 4(2), 149–164.
- Dagliesh, W. A., & Templin, J. T. (1980). Comparisons of wind tunnel and full-scale building surface pressures with emphasis on peaks. *Proc., 5th Int. Conf. on Wind Engineering*.
- Davenport, A. G. (1964). Note on the distribution of the largest value of a random function with application to gust loading. *Proceedings of the Institution of Civil Engineers, Paper No.6739*, 28, 187–196.
- Davenport, A. G., & Isyumov, N. (1967). The application of the boundary layer wind tunnel to the prediction of wind loading. *Proc. International Research Seminar on Wind Effects on Buildings and Structures*, 201–230.

EN 1991-1-4, *Eurocode 1, 2005: Actions on Structures-General Actions-Part 1-4. Wind Actions, European Standard.* (2005).

Fouad, N. S., Mahmoud, G. H., & Nasr, N. E. (2018). Comparative study of international codes wind loads and CFD results for low rise buildings. *Alexandria Engineering Journal*, 57, 3623–3639.

Franke, J., Hellsten, A., Schlunzen, K. H., & Carissimo, B. (2011). The COST 732 Best Practice Guideline for CFD simulation of flows in the urban environment: A summary. *International Journal of Environment and Pollution*, 44(1–4), 419–427. <https://doi.org/10.1504/IJEP.2011.038443>

Gavanski, E., Gurley, K. R., & Kopp, G. A. (2016). Uncertainties in the Estimation of Local Peak Pressures on Low-Rise Buildings by Using the Gumbel Distribution Fitting Approach. *Journal of Structural Engineering*. [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001556](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001556)

Geurts, C. P. W. (2001). Transparency of pressure and force coefficients. *Proc., 3rd European and African Conf. on Wind Engineering*, 165–172.

Geurts, C. P. W., Kopp, G. A., & Morrison, M. J. (2013). A review of the wind loading zones for flat roofs in code provisions. *Proc., 6th European and African Conf. on Wind Engineering*, 1–6.

Ginger, J. D., Reardon, G. F., & Whitebread, B. J. (1999). Wind load effects and equivalent pressures on low-rise house roofs. *Engineering Structures*, 22, 638–646.

- Gorlé, C., van Beeck, J., Rambaud, P., & Van Tendeloo, G. (2009). CFD modelling of small particle dispersion: The influence of the turbulence kinetic energy in the atmospheric boundary layer. *Atmospheric Environment*, 43(3), 673–681. <https://doi.org/10.1016/j.atmosenv.2008.09.060>
- Habte, F., Chowdhury, A. G., & Zisis, I. (2017). Effect of wind-induced internal pressure on local frame forces of low-rise buildings. *Engineering Structures*, 143, 455–468.
- Hargreaves, D. M., & Wright, N. G. (2007). On the use of the k- ϵ model in commercial CFD software to model the neutral atmospheric boundary layer. *Journal of Wind Engineering and Industrial Aerodynamics*, 95(5), 355–369. <https://doi.org/10.1016/j.jweia.2006.08.002>
- Henderson, D. J., Ginger, J. D., Leitch, C., Boughton, G., & Falck, D. (2006). *Tropical cyclone Larry- Damage to buildings in the innisfail aera* (No. TR51). Cyclone testing station, James cook university.
- Ho, T. C. E., Surry, D., & Davenport, A. G. (1991). Variability of low building wind loads due to surroundings. *Journal of Wind Engineering and Industrial Aerodynamics*, 38, 297–310.
- Holmes, J. D. (1983). *Wind loads on low-rise buildings—A review*. CSIRO.
- Holmes, J. D. (1985). Wind action on glass and Brown's integral. *Engineering Structures*, 4, 226–230.

- Holmes, J. D. (1986). Wind Pressures on Tropical Building Low-Rise Building. *Journal of Wind Engineering and Industrial Aerodynamic*, 53(1–2), 105–123.
- Holmes, J. D. (2001). *Wind Loading of Structures*. Taylor & Francis.
- Holmes, J. D., & Cochran, L. S. (2003). Probability distributions of extreme pressure coefficients. *Journal of Wind Engineering and Industrial Aerodynamics*, 91, 893–901. [https://doi.org/10.1016/S0167-6105\(03\)00019-9](https://doi.org/10.1016/S0167-6105(03)00019-9)
- Holmes, J. D., & Ginger, J. D. (2012). Internal pressures – the dominant windward opening case – a review. *Journal of Wind Engineering and Industrial Aerodynamics*, 70–76.
- Holmes, J. D., & Moriarty, W. W. (1999). Application of the generalized Pareto distribution to extreme value analysis in wind engineering. *Journal of Wind Engineering and Industrial Aerodynamics*, 83(1–3), 1–10.
- Hosking, J. R. M., Wallis, J. R., & Wood, E. F. (1985). Estimation of the Generalized Extreme Value Distribution by the Method of Probability-Weight. *TECHNOMETRICS*, 27(3), 251–261.
- Hoven, V. D. (1957). Power spectrum of horizontal wind speed in the frequency range from 0.0007 to 900 cycles per hour. *Journal of Meteorology*, 14, 160–164.
- Hoxey, R. P. (1991). Structural Response of a Portal Framed Building under Wind Load. *Journal of Wind Engineering and Industrial Aerodynamics*, 38, 347–356.

- Hussain, M., & Lee, B. E. (1980). A wind tunnel study of the mean pressure forces acting on large groups of low-rise buildings. *Journal of Wind Engineering & Industrial Aerodynamics*, 6, 207–225.
- ISO. (2009). *Wind actions on structures. ISO 4354:2009*.
- Jayasinghe, N. C. (2012). *The distribution of wind loads and vulnerability of metal clad roofing structures in contemporary Australian houses* [PhD thesis, James Cook University]. <http://researchonline.jcu.edu.au/39226/>
- Jenson, M. (1958). The Model-law for Phenomena in Natural Wind. *Ingenioren*, 2, 121–128.
- Jenson, M. (1967). Some lessons learned in building aerodynamics research. *Proc. Int. Res. Seminar on Wind Effects on Buildings and Structures*.
- John, A. D. (2009). *Effect of architectural features on wind load in buildings* [PhD thesis]. Department of Civil Engineering, Indian Institute of Technology Roorkee.
- John, A. D., Gairola, A., & Mukherjee, M. (2009). Effect of Boundary Wall on Wind Pressure Coefficients on A Low-Rise Building. *Journal of Wind and Engineering*, 6(1), 10–18.
- Kanda, M., & Maruta, E. (1993). Characteristics of fluctuating wind pressure on long low—Rise buildings with gable roofs. *Journal of Wind Engineering and Industrial Aerodynamics*, 50, 173–182.

- Kasperski, M. (1997). *Specification and codification of design wind loads* [Rep., Fakultat fur Bauingenieurwesen].
- Kasperski, M. (2003). Specification of the design wind load based on wind tunnel experiments. *Journal of Wind Engineering and Industrial Aerodynamics*, 91(4), 527–541.
- Kim, Y. C., Yoshida, A., & Tamura, Y. (2012). Characteristics of surface wind pressures on low-rise building located among large group of surrounding buildings. *Engineering Structures*, 35, 18–28.
- Kopp, G. A., & Morrison, M. J. (2018). Component and cladding wind loads for low-slope roofs on low-rise buildings. *Journal of Structural Engineering*, 144(4).
- Krishna, P. (1995h). Wind loads on low rise buildings—A review. *Journal of Wind Engineering and Industrial Aerodynamics*, 54/55.
- Leitch, C., Ginger, J. D., Harper, B., Kim, P., Jayasinghe, N. C., & Somerville, L. R. (2010). Performance of housing in Brisbane following storms on 16 november 2008. *Australian Journal of Structural Engineering*, 11(1).
- Li, B., Liu, J., Luo, F., & Man, X. (2015). *Evaluation of CFD Simulation Using Various Turbulence Models for Wind Pressure on Buildings Based on Wind Tunnel Experiments*. 121, 2209–2216.
- Li, G., Gan, S., Li, Y., & Wang, L. (2017). Wind-induced interference effects on low-rise buildings with gable roof. *Journal of Wind Engineering and Industrial Aerodynamics*, 170, 94–106. <https://doi.org/10.1016/j.jweia.2017.07.009>

- Li, Q. S., Hu, S. Y., Da, Y. M., & Li, Z. M. (2009). Extreme-value analysis for field measured peak pressure coefficients on a low-rise building. *The Seventh Asia-Pacific Conference on Wind Engineering, November 8-12, ..*
- Liu, H. (1991). *Wind Engineering, A Handbook for Structural Engineers*.
- Liu, S., Pan, W., Zhao, X., Zhang, H., Cheng, X., Long, Z., & Chen, Q. (2018). Influence of surrounding buildings on wind flow around a building predicted by CFD simulations. *Building and Environment, 140*, 1–10.
- Longo, R., Ferrarotti, M., Sánchez, C. G., Derudi, M., & Parente, A. (2017). Advanced turbulence models and boundary conditions for flows around different configurations of ground-mounted buildings. *Journal of Wind Engineering and Industrial Aerodynamics, 167*, 160–182.
<https://doi.org/10.1016/j.jweia.2017.04.015>
- Massimiliano, G., & Vittorio, G. (2002). Damage Accumulation in Glass Plates. *Journal of Engineer Mechanics, ASCE, 7*, 801–805.
- Meecham, D., Surry, D., & Davenport, A. G. (1991). The Magnitude and Distribution of Wind-Induced Pressures on Hip and Gabled Roofs. *Journal of Wind Engineering and Industrial Aerodynamics, 38*, 257–272.
- Meroney, R. N., & Neff, D. E. (1982). Dispersion of vapour from liquid natural gas spills-evaluation of simulation in a meteorological wind tunnel. *Journal of Wind Engineering and Industrial Aerodynamic, 10(1)*, 1–19.
[https://doi.org/10.1016/0167-6105\(82\)90050-2](https://doi.org/10.1016/0167-6105(82)90050-2)

- Moravej, M., Irwin, P., Chowdhury, A. G., & Hajra, B. (2017). Effects of roof height on local pressure and velocity coefficients on building roofs. *Engineering Structures*, *150*, 693–710.
- NBC2015, 2015. User's Guide-NBC 2015, Structural Commentaries (Part 4). Issued by the Canadian Commission on Buildings and Fire Codes, National Research Council of Canada. (n.d.).*
- Ong, R. H., Patruno, L., Yeo, D., He, Y., & Kwok, K. C. S. (2020). Numerical simulation of wind-induced mean and peak pressures around a low-rise structure. *Engineering Structures*, *214*.
- Parackal, K. I. (2018). *The Structural Response and Progressive Failure of Batten to Rafter Connections under Wind Loads* [Doctoral Thesis]. James Cook University.
- Parackal, K. I., Ginger, J. D., & Henderson, D. J. (2018). Wind load fluctuations on roof batten to rafter/truss connections. *Journal of Wind Engineering & Industrial Aerodynamics*, 193–201.
- Parente, A., Gorle, C., Van Beck, J., & Benocci, C. (2010). *RANS simulation of ABL flows: Application of advanced wall boundary conditions to configurations with mixed rough and smooth surfaces*. <http://hdl.handle.net/2013/>
- Parente, A., Górlé, C., van Beeck, J., & Benocci, C. (2011a). Improved $k-\epsilon$ model and wall function formulation for the RANS simulation of ABL flows. *Journal of*

Wind Engineering and Industrial Aerodynamics, 99(4), 267–278.
<https://doi.org/10.1016/j.jweia.2010.12.017>

Parente, A., Gorié, C., van Beeck, J., & Benocci, C. (2011b). A Comprehensive Modelling Approach for the Neutral Atmospheric Boundary Layer: Consistent Inflow Conditions, Wall Function and Turbulence Model. *Boundary-Layer Meteorology*, 140(3), 411. <https://doi.org/10.1007/s10546-011-9621-5>

Parente, A., Longo, R., & Ferrarotti, M. (2019). *Turbulence model formulation and dispersion modelling for the CFD simulation of flows around obstacles and on complex terrains*. <https://doi.org/10.35294/ls201903.parente>

Peterka, J. A. (1983). Selection of local peak pressure coefficients for wind tunnel studies of buildings. *Journal of Wind Engineering and Industrial Aerodynamics*, 13, 477–488.

Pindado, S., & Meseguer, J. (2003). Wind tunnel study on the influence of different parapets on the roof pressure distribution of low-rise buildings. *Journal of Wind Engineering and Industrial Aerodynamics*, 91, 1133–1139.

Prasad, D., Uliate, T., & Ahmed, M. R. (2009). Wind Loads on Low-Rise Building Models with Different Roof Configurations. *International Journal of Fluid Mechanics Research*.

Quan, Y., Wang, F., & Gu, M. (2014). A Method for Estimation of Extreme Values of Wind Pressure on Buildings Based on the Generalized Extreme-Value Theory.

Hindawi Publishing Corporation Mathematical Problems in Engineering,
2014. <http://dx.doi.org/10.1155/2014/926253>

Reardon, G. F., Walker, G. R., & Jancauskas, E. D. (1986). *Effects of cyclone winifred on buildings*, (No. TR27). Cyclone testing station, James cook university.

Richards, P. J., & Hoxey, R. P. (1993). Appropriate boundary conditions for computational wind engineering models using the k- ϵ turbulence model. *Journal of Wind Engineering and Industrial Aerodynamics*, 46–47, 145–153. [https://doi.org/10.1016/0167-6105\(93\)90124-7](https://doi.org/10.1016/0167-6105(93)90124-7)

Richardson, G. M., & Surry, D. (1991). Comparisons of wind-tunnel and full-scale surface pressure measurements on low-rise pitched-roof buildings. *Journal of Wind Engineering and Industrial Aerodynamics*, 38, 249–256.

Roberston, A. P. (1991). Effect of Eaves Detail on Wind Pressures Over an Industrial Building. *Journal of Wind Engineering and Industrial Aerodynamics*, 38, 325–333.

Rodi, W. (1997). Comparison of LES and RANS calculations of the flow around bluff bodies. *Journal of Wind Engineering and Industrial Aerodynamics*, 69–71, 55–75. [https://doi.org/10.1016/S0167-6105\(97\)00147-5](https://doi.org/10.1016/S0167-6105(97)00147-5)

Sadek, F., & Simiu, E. (2002). Peak Non-Gaussian Wind Effects for Database-Assisted Low-Rise Building Design. *Journal of Engineering Mechanics*, 128(5), 530–539. <https://doi.org/10.1061/~ASCE!0733-9399~2002!128:5~530!>

- Shah, K. B., & Ferziger, J. H. (1997). A fluid mechanics view of wind engineering: Large eddy simulation of flow past a cubic obstacle. *Journal of Wind Engineering and Industrial Aerodynamics*, 67–68, 211–224. [https://doi.org/10.1016/S0167-6105\(97\)00074-3](https://doi.org/10.1016/S0167-6105(97)00074-3)
- Simiu, E., & Yeo, D. (2019). *Wind effects on structures: Modern structural design for wind* (4th ed.). John Wiley & Sons Ltd.
- Socket, H. (1980). Local pressure fluctuations. *Proc., 5th Int. Conf. on Wind Engineering*.
- Stathopoulos, T. (1979). *Turbulent Wind Action on Low-rise Buildings* [Ph.D. Thesis]. University of Western Ontario.
- Stathopoulos, T. (1984). Wind loads on low-rise buildings: A review of the state of the art. *Engineering Structures*, 6, 119–135.
- Stathopoulos, T., & Baniotopoulos, C. C. (2007). *Wind Effects on Buildings and Design of Wind Sensitive Structures*. Springer Wein New York.
- Stathopoulos, T., & Surry, D. (1983). *Scale Effects in Wind Tunnel Testing of Low Buildings*. 13, 313–326.
- Tamura, Y., & Kareem, A. (2013). *Advanced Structural Wind Engineering*.
- Tieleman, H. W. (2003). Wind tunnel simulation of wind loading on low-rise structures: A review. *Journal of Wind Engineering and Industrial Aerodynamics*, 91, 1627–1649.

- Tieleman, H. W., Akins, R. E., & Sparks, P. R. (1981). Comparison of wind tunnel and full-scale wind pressure measurements on low-rise buildings. *Journal of Wind Engineering and Industrial Aerodynamics*.
- Tieleman, H. W., Ge, Z., & Hajj, M. R. (2007). Theoretically estimated peak wind loads. *Journal of Wind Engineering and Industrial Aerodynamics*, 95, 113–132. <https://doi.org/10.1016/j.jweia.2006.05.004>
- Tominga, Y., Mochida, A., & Yoshie, R. (2008). AIJ guidelines for practical applications of CFD to pedestrian wind environment around buildings. *Journal of Wind Engineering and Industrial Aerodynamics*, 1749–1761.
- Tong, Z., Chen, Y., & Malkawi, A. (2016). Defining the Influence Region in neighborhood-scale CFD simulations for natural ventilation design. *Applied Energy*, 182, 625–633.
- Uematsu, Y., & Isyumov, N. (1999). Review -Wind pressures acting on low-rise buildings. *Journal of Wind Engineering and Industrial Aerodynamic*, 82, 1–25.
- Vickery, B. J. (1976). *Wind loadson low rise buildings*. D.R.C. Seminar,.
- Walker, G. R. (1995). *Report on Cyclone tracy-effect on buildings*. Australian department of housing and construction.
- Walker, G. R., & Roy, R. J. (1985). *Wind loads on houses in an urban environment*,. Asia Pacific Syrup. on Wind Engineering, India.

Wieringa, J. (1992). Updating the Davenport roughness classification. *Journal of Wind Engineering and Industrial Aerodynamics*, 41(44), 357–368.

WMO. (1989). *Statistical distributions for flood frequency analysis* (No. 33). Secretariat of the world meteorological organization - geneva - switzerland.

Xie, Z.-T., & Castro, I. P. (2009). Large-eddy simulation for flow and dispersion in urban streets. *Atmospheric Environment*, 43(13), 2174–2185.
<https://doi.org/10.1016/j.atmosenv.2009.01.016>