

References

- American Society of Civil Engineers. (2010). *Tensile membrane structures*. American Society of Civil Engineers.
- Argyris, J.-H., Angelopoulos, T., & Bichat, B. (1974). A general method for the shape finding of lightweight tension structures. In *computer methods in applied mechanics and engineering* (Vol. 3).
- ASCE/SE. (2010). Tensile membrane structures. In *ASCE/SEI 55-10* (Issues 55–10). <https://doi.org/10.1061/9780784410974>
- ASCE 55-16. (2017). Tensile membrane structures. In *Tensile Membrane Structures*. American Society of Civil Engineers (ASCE). <https://doi.org/10.1061/9780784414378>
- Barnes, M. R. (1999). Form finding and analysis of tension structures by dynamic relaxation. *International Journal of Space Structures*, 14(2), 89–104. <https://doi.org/10.1260/0266351991494722>
- Bjerager, P. (1990). On computation methods for structural reliability analysis. *Structural Safety*, 9(2), 79–96. [https://doi.org/10.1016/0167-4730\(90\)90001-6](https://doi.org/10.1016/0167-4730(90)90001-6)
- Bjerager, P. (1991). Methods for structural reliability computations. *Courses and Lectures - International Centre for Mechanical Sciences*, 317, 89–135. https://doi.org/10.1007/978-3-7091-2616-5_3
- Bradshaw, R., Campbell, D., Gargari, M., Mirrniran, A., & Tripeny, P. (2003). Special Structures: Past, Present, and Future. *Perspectives in Civil Engineering: Commemorating the 150th Anniversary of the American Society of Civil Engineers*, 128(June), 143–161. [https://doi.org/10.1061/\(asce\)0733-9445\(2002\)128:6\(691\)](https://doi.org/10.1061/(asce)0733-9445(2002)128:6(691))
- Brew, J. S., & Lewis, W. J. (2003). Computational form-finding of tension membrane structures - Non-finite element approaches: Part 1. Use of cubic splines in finding minimal surface membranes. *International Journal for Numerical Methods in Engineering*, 56(5), 651–668. <https://doi.org/10.1002/nme.579>
- Bridgens, B., & Birchall, M. (2012). Form and function: The significance of material

- properties in the design of tensile fabric structures. *Engineering Structures*, 44, 1–12.
<https://doi.org/10.1016/j.engstruct.2012.05.044>
- Bridgens, B. N., & Gosling, P. D. (2004). Direct stress-strain representation for coated woven fabrics. *Computers and Structures*, 82(23–26), 1913–1927.
<https://doi.org/10.1016/j.compstruc.2003.07.005>
- Bridgensben, B. N., Gosling P.D., B. M. J. s. (n.d.). *Bridgens-2004-Tensilefabricstructures_conce.*
- Brzozowski, A., Freeman, G., & Lee, J. C. (2005). The roof structure of the Jeju Worldcup Stadium. *Proceedings of the Structures Congress and Exposition*, 789–800. [https://doi.org/10.1061/40753\(171\)80](https://doi.org/10.1061/40753(171)80)
- Bucher, C. G. (1988). Adaptive sampling - an iterative fast Monte Carlo procedure. *Structural Safety*, 5(2), 119–126. [https://doi.org/10.1016/0167-4730\(88\)90020-3](https://doi.org/10.1016/0167-4730(88)90020-3)
- Bucher, C. G., & Bourgund, U. (1990). *A fast and efficient response surface approach for structural reliability problems*. 7, 57–66.
- Caner, B. A., & Hsu, R. (1999). *Tension fabric Shape finding*. 125(September), 1065–1071.
- de Borst, R., Crisfield, M. A., Remmers, J. J. C., & Verhoosel, C. V. (2012). Non-Linear Finite Element Analysis of Solids and Structures: Second Edition. *Non-Linear Finite Element Analysis of Solids and Structures: Second Edition*, 1, 14–15.
<https://doi.org/10.1002/9781118375938>
- De Lima, B. S. L. P., & Ebecken, N. F. F. (2000). Comparison of models for uncertainty analysis by the finite element method. *Finite Elements in Analysis and Design*, 34(2), 211–232. [https://doi.org/10.1016/S0168-874X\(99\)00039-6](https://doi.org/10.1016/S0168-874X(99)00039-6)
- Der Kiureghian, A., & Dakessian, T. (1998). Multiple design points in first and second-order reliability. *Structural Safety*, 20(1), 37–49. [https://doi.org/10.1016/S0167-4730\(97\)00026-X](https://doi.org/10.1016/S0167-4730(97)00026-X)
- Dimitri, V., Bljuger, F., & Yankelevsky, D. (1997). Reliability evaluation in nonlinear analysis of reinforced concrete structures. *Structural Safety*, 19(2), 203–217.
[https://doi.org/10.1016/s0167-4730\(96\)00025-2](https://doi.org/10.1016/s0167-4730(96)00025-2)

- Ditlevsen, O., Melchers, R. E., & Gluwer, H. (1990). General multi-dimensional probability integration by directional simulation. *Computers and Structures*, 36(2), 355–368. [https://doi.org/10.1016/0045-7949\(90\)90134-N](https://doi.org/10.1016/0045-7949(90)90134-N)
- Dutta, S., & Ghosh, S. (2019). Analysis and Design of Tensile Membrane Structures: Challenges and Recommendations. *Practice Periodical on Structural Design and Construction*, 24(3), 04019009. [https://doi.org/10.1061/\(asce\)sc.1943-5576.0000426](https://doi.org/10.1061/(asce)sc.1943-5576.0000426)
- Dutta, S., Ghosh, S., & Inamdar, M. M. (2016). Reliability-Based Design Optimization of Frame-Supported Tensile Membrane Structures. *Journal Of Risk and Uncertainty in Engineering Systems, Part A, G4016001*, 2376–7642.
- Dutta, S., Ghosh, S., & Inamdar, M. M. (2018). Optimisation of tensile membrane structures under uncertain wind loads using PCE and kriging based metamodels. *Structural and Multidisciplinary Optimization*, 57(3), 1149–1161. <https://doi.org/10.1007/s00158-017-1802-5>
- Frangopol, D. M., & Imai, K. (2000). Geometrically nonlinear finite element reliability analysis of structural systems. II: applications. *Computers and Structures*, 77(6), 693–709. [https://doi.org/10.1016/S0045-7949\(00\)00011-0](https://doi.org/10.1016/S0045-7949(00)00011-0)
- Gosling, P. D., Bridgens, B. N., Albrecht, A., Alpermann, H., Angeleri, A., Barnes, M., Bartle, N., Canobbio, R., Dieringer, F., Gellin, S., Lewis, W. J., Mageau, N., Mahadevan, R., Marion, J. M., Marsden, P., Milligan, E., Phang, Y. P., Sahlin, K., Stimpfle, B., ... Uhlemann, J. (2013). Analysis and design of membrane structures: Results of a round robin exercise. *Engineering Structures*, 48, 313–328. <https://doi.org/10.1016/j.engstruct.2012.10.008>
- Gosling, P. D., Bridgensben, B. N., & Zhang, L. (2013). Adoption of a reliability approach for membrane structure analysis. *Structural Safety*, 40, 39–50. <https://doi.org/10.1016/j.strusafe.2012.09.002>
- Gru ndig, L. (1988). Minimal surfaces for finding forms of structural membranes. In *Computers & Srructures* (Vol. 30, Issue 3).
- Greco, L., & Cuomo, M. (2012). On the force density method for slack cable nets. *International Journal of Solids and Structures*, 49(13), 1526–1540. <https://doi.org/10.1016/j.ijsolstr.2012.02.031>

- Grooteman, F. (2008). *Adaptive radial-based importance sampling method for structural reliability*. 30, 533–542. <https://doi.org/10.1016/j.strusafe.2007.10.002>
- Haber, R. B., & Abel, J. F. (1982). Initial equilibrium solution methods for cable unforced ~membranes part i-formulations. In *computer methods in applied mechanics and engineering* (Vol. 30).
- Hong, H. P. (1996). *Approximate reliability analysis using normal polynomial and simulation results*. 18(4), 329–339.
- Huntington, C. G. (2003). *The-tensioned-fabric-roof*.
- Huntington, C. G. (2013). *Tensile fabric structures : analysis, design, and construction*. American Society of Civil Engineers.
- Igusa, T., Buonopane, S. G., & Ellingwood, B. R. (2002). Bayesian analysis of uncertainty for structural engineering applications. *Structural Safety*, 24(2–4), 165–186. [https://doi.org/10.1016/S0167-4730\(02\)00023-1](https://doi.org/10.1016/S0167-4730(02)00023-1)
- Imai, K., & Frangopol, D. M. (2000). Geometrically nonlinear finite element reliability analysis of structural systems. I: theory. In *Computers and Structures* (Vol. 77, Issue 6). [https://doi.org/10.1016/S0045-7949\(00\)00010-9](https://doi.org/10.1016/S0045-7949(00)00010-9)
- Jin Guoliang, Chen Lin, & Dong Jiamei. (1993). Monte carlo finite element method of structure reliability analysis. *Reliability Engineering and System Safety*, 40(1), 77–83. [https://doi.org/10.1016/0951-8320\(93\)90121-E](https://doi.org/10.1016/0951-8320(93)90121-E)
- Kai-Uwe Bletzinger, E. R. (1999). bletzinger1999. *International Journal of Space Structures*, 14(2).
- Kim, J., Choi, J., & Cho, D. (2010). Design Process of Free-Formed Dome Structure ; Southwestern Dome Stadium. *Proceedings of the IASS Symposium*, 1–12.
- Kiureghian, A. Der, & Ke, J. (1988). *The stochastic finite element method in structural reliability*. 3(2), 83–91.
- Levy, R., & Spillers, W. R. (1998). Practical Methods of Shape-Finding for Membranes and Cable Nets. *Journal of Structural Engineering*, 124(4), 466–468. [https://doi.org/10.1061/\(asce\)0733-9445\(1998\)124:4\(466\)](https://doi.org/10.1061/(asce)0733-9445(1998)124:4(466))

- Lewis, W. J. (2008). "Computational form finding methods for fabric structures." *Engineering and Computational Mechanics* 161, EM3, 139–149.
- Lewis, W. J. (2013). Modeling of Fabric Structures and Associated Design Issues. *Journal of Architectural Engineering*, 19(2), 81–88. [https://doi.org/10.1061/\(asce\)ae.1943-5568.0000097](https://doi.org/10.1061/(asce)ae.1943-5568.0000097)
- Linhard, J., & Bletzinger, K.-U. (2009). "Tracing" the Equilibrium-Recent Advances in Numerical Form Finding. *International Journal of Space Structures*, 25(2).
- liu Pei-Ling, K. A. Der. (1991). Finite element reliability of geometrically nonlinear uncertain structures By Pei-Ling Liu 1 and Armen Der Kiureghian, 2 Member, ASCE. *Journal of Engineering Mechanics*, 117(8), 1806–1825.
- Melchers, R. E. (1994). Structural system reliability assessment using directional simulation. *Structural Safety*, 16(1–2), 23–37. [https://doi.org/10.1016/0167-4730\(94\)00026-M](https://doi.org/10.1016/0167-4730(94)00026-M)
- Miki, M., & Kawaguchi, K. N. I. (2010). Extended force density method for form-finding of tension structures. *Journal of the International Association for Shell and Spatial Structures*, 51(166), 291–303.
- Mitteau, J. C. (1999). Error evaluations for the computation of failure probability in static structural reliability problems. *Probabilistic Engineering Mechanics*, 14(1–2), 119–136. [https://doi.org/10.1016/s0266-8920\(98\)00022-8](https://doi.org/10.1016/s0266-8920(98)00022-8)
- Mori, Y., & Ellingwood, B. R. (1993). Time-dependent system reliability analysis by adaptive importance sampling. *Structural Safety*, 12(1), 59–73. [https://doi.org/10.1016/0167-4730\(93\)90018-V](https://doi.org/10.1016/0167-4730(93)90018-V)
- Naess, A., Leira, B. J., & Batsevych, O. (2009). System reliability analysis by enhanced Monte Carlo simulation. *Structural Safety*, 31(5), 349–355. <https://doi.org/10.1016/j.strusafe.2009.02.004>
- Nie, J., & Ellingwood, B. R. (2004). A new directional simulation method for system reliability . Part I: application of deterministic point sets. 19, 425–436. <https://doi.org/10.1016/j.probengmech.2004.03.004>

- Rana, B.S., Dutta, S., Maiti, P.R. and Putcha, C. (2022), "On computation of reliability index for tensile membrane structures based on limit state of deflection", *International Journal of Structural Integrity*, Vol. 13 No. 4, pp. 717-733. <https://doi.org/10.1108/IJSI-05-2022-0068>
- Ramirez-Marquez, J. E., & Coit, D. W. (2005). A monte-carlo simulation approach for approximating multi-state two-terminal reliability. *Reliability Engineering and System Safety*, 87(2), 253–264. <https://doi.org/10.1016/j.ress.2004.05.002>
- Rocco, S. C. M. (2003). A rule induction approach to improve Monte Carlo system reliability assessment. *Reliability Engineering and System Safety*, 82(1), 85–92. [https://doi.org/10.1016/S0951-8320\(03\)00137-6](https://doi.org/10.1016/S0951-8320(03)00137-6)
- Sánchez, J., Serna, M. Á., & Morer, P. (2007). A multi-step force-density method and surface-fitting approach for the preliminary shape design of tensile structures. *Engineering Structures*, 29(8), 1966–1976. <https://doi.org/10.1016/j.engstruct.2006.10.015>
- Schek Heidelberg, H.-J. (1974). The force density method for form finding and computation of general networks. In *computer methods in applied mechanics and engineering* (Vol. 3).
- Tabarrok, B., & Qin, Z. (1992). Nonlinear analysis of tension structures. *Computers and Structures*, 45(5–6), 973–984. [https://doi.org/10.1016/0045-7949\(92\)90056-6](https://doi.org/10.1016/0045-7949(92)90056-6)
- Teigen, B. J. G., Frangopol, D. M., Sture, S., & Felippa, C. A. (1992). Probabilistic f e m for nonlinear concrete structures. I:Theory. *Journal of Structural Engineering*, 117(9), 2674–2689.
- Tichý, M. (1994). First-order third-moment reliability method. *Structural Safety*, 16(3), 189–200. [https://doi.org/10.1016/0167-4730\(94\)00021-H](https://doi.org/10.1016/0167-4730(94)00021-H)
- Topping, B H V, I. P. (2007). *B. H. V. Topping, P. Ivanyi - Computer Aided Design of Cable Membrane Structures (Saxe-Coburg Publications on Computational Engineering) (2008, Saxe-Coburg Publications) - libgen.lc.pdf*.
- Veenendaal, D., & Block, P. (2012). An overview and comparison of structural form finding methods for general networks. *International Journal of Solids and*

Structures, 49(26), 3741–3753. <https://doi.org/10.1016/j.ijsolstr.2012.08.008>

Wakefield, D. S. (1999). Engineering analysis of tension structures: theory and practice. In *Engineering Structures* (Vol. 21).

Zhang Lei Supervisor Gosling, P. D. (2010). *Reliability analysis of fabric structures*.

Zhang, R., & Mahadevan, S. (2000). Model uncertainty and Bayesian updating in reliability-based inspection. *Structural Safety*, 22(2), 145–160. [https://doi.org/10.1016/S0167-4730\(00\)00005-9](https://doi.org/10.1016/S0167-4730(00)00005-9)

Zhang, Y., & Der Kiureghian, A. (1993). Dynamic response sensitivity of inelastic structures. *Computer Methods in Applied Mechanics and Engineering*, 108(1–2), 23–36. [https://doi.org/10.1016/0045-7825\(93\)90151-M](https://doi.org/10.1016/0045-7825(93)90151-M)

Zhao, Y. G., & Ono, T. (1999). A general procedure for first/second-order reliability method (FORM/SORM). *Structural Safety*, 21(2), 95–112. [https://doi.org/10.1016/S0167-4730\(99\)00008-9](https://doi.org/10.1016/S0167-4730(99)00008-9)

Zhao, Y. G., & Ono, T. (2001). Moment methods for structural reliability. *Structural Safety*, 23(1), 47–75. [https://doi.org/10.1016/S0167-4730\(00\)00027-8](https://doi.org/10.1016/S0167-4730(00)00027-8)