

# OSU Building and Environmental Thermal Systems Research Group

## Citation Index

February 2010

The following list is a “citation index” for papers, books, theses, etc. published by members of the OSU Building and Environmental Thermal Systems Research Group. It is current as of the 22nd of February, 2010, and contains all known citations to our work, excluding “self-citations”<sup>1</sup>. As we see it, it is primarily of interest to other researchers engaged in literature reviews. We hope you find it helpful.

If you know of additional citations not listed here, please send them to Jeff Spitler ([spitler@okstate.edu](mailto:spitler@okstate.edu)).

Gao, Q., M. Li, M. Yu, J.D. Spitler, and Y.Y. Yan. 2009. Review of development from GSHP to UTES in China and other countries. *Renewable and Sustainable Energy Reviews* 13(6-7):1383-1394.

Li, S., W. Yang, and X. Zhang. 2009. Soil temperature distribution around a U-tube heat exchanger in a multi-function ground source heat pump system. *Applied Thermal Engineering* 29(17-18):3679-3686.

Iverson, B., L. Cremaschi, and S. Garimella. 2009. Effects of discrete-electrode configuration on traveling-wave electrohydrodynamic pumping. *Microfluidics and Nanofluidics* 6(2):221-230.

Mathur, S.R., and J.Y. Murthy. 2009. A multigrid method for the Poisson–Nernst–Planck equations. *International Journal of Heat and Mass Transfer* 52(17-18):4031-4039.

Li, X.Q., Y. Chen, J.D. Spitler, and D. Fisher. 2009. Applicability of calculation methods for conduction transfer function of building constructions. *International Journal of Thermal Sciences* 48(7):1441-1451.

Luo, C., B. Moghtaderi, and A. Page, 2009. Modelling of wall heat transfer using modified conduction transfer function, finite volume and complex Fourier analysis methods. *Energy and Buildings*, In Press.

Wang, J., S.Wang, X. Xu, and Y.Chen. 2009. Short time step heat flow calculation of building constructions based on frequency-domain regression method. *International Journal of Thermal Sciences* 48(12):2355-2364.

Spitler, J.D. 2009. *Load Calculation Applications Manual*. Atlanta: American Society of Heating, Refrigerating and Air-Conditioning Engineers.

Causone, F., S.P. Corgnati, and M. Filippi, and B.W. Olesen. 2010. Solar radiation and cooling load calculation for radiant systems: Definition and evaluation of the Direct Solar Load. *Energy and Buildings* 42(3):305-314.

---

<sup>1</sup> Specifically, works on this list that cite other works on this list are not included.

Cui, P., H. Yang, J.D. Spitler, and Z. Fang. 2008. Simulation of hybrid ground-coupled heat pump with domestic hot water heating systems using HVACSIM+. *Energy and Buildings* 40(9):1731-1736.

Li, Y.-M., J.-Y. Wu, and S. Shiochi. 2010. Experimental validation of the simulation module of the water-cooled variable refrigerant flow system under cooling operation. *Applied Energy* 87(5):1513-1521.

Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.

Fabrizio, E., M. Filippi, and J. Virgone. 2009. An hourly modelling framework for the assessment of energy sources exploitation and energy converters selection and sizing in buildings. *Energy and Buildings* 41(10):1037-1050.

Li, Y., J. Wu, and S. Shiochi. 2009. Modeling and energy simulation of the variable refrigerant flow air conditioning system with water-cooled condenser under cooling conditions. *Energy and Buildings* 41(9):949-957.

Li, S., W. Yang, and X. Zhang. 2009. Soil temperature distribution around a U-tube heat exchanger in a multi-function ground source heat pump system. *Applied Thermal Engineering* 29(17-18):3679-3686.

Ma, Z., and S. Wang 2009. Building energy research in Hong Kong: A review. *Renewable and Sustainable Energy Reviews* 13(8):1870-1883.

Cremaschi, L., E.A. Groll, and S.V. Garimella. 2007. Performance potential and challenges of future refrigeration-based electronics cooling approaches. *Proceedings of THERMES 2007, Santa Fe, New Mexico*, pp. 119–128.

Sathe, A.A., E.A. Groll, and S.V. Garimella. 2009. Optimization of electrostatically actuated miniature compressors for electronics cooling. *International Journal of Refrigeration* 32(7):1517-1525.

Liu, X., S.J. Rees, and J. Spitler. 2007. Modeling snow melting on heated pavement surfaces: model development. *Applied Thermal Engineering* 27(5-6):1115–1124.

Wang, H., J. Zhao, and Z. Chen. 2008. Experimental investigation of ice and snow melting process on pavement utilizing geothermal tail water. *Energy Conversion and Management* 49(6):1538-1546.

Liu, X., S.J. Rees, and J. Spitler. 2007. Modeling snow melting on heated pavement surface: experimental validation. *Applied Thermal Engineering* 27(2007):1125–1131.

Wang, H., and Z. Chen. 2009. Study of critical free-area ratio during the snow-melting process on pavement using low-temperature heating fluids. *Energy Conversion and Management* 50(1):157-165.

Wang, H., J. Zhao, and Z. Chen. 2008. Experimental investigation of ice and snow melting process on pavement utilizing geothermal tail water. *Energy Conversion and Management* 49(6):1538-1546.

Chantrasrisalai, C., and D.E. Fisher. 2006. An in situ experimental method for the development and validation of slat-type blind models in cooling load calculations. *Journal of Solar Energy Engineering, Transactions of the ASME* 128(2):189-198.

Chaiyapinunt, S., and S. Worasinchai. 2009. Development of a mathematical model for a curved slat venetian blind with thickness. *Solar Energy* 83(7):1093-1113.

Chen, Y., J. Zhou, and J. Spitler. 2006. Verification for transient heat conduction calculation of multilayer building constructions. *Energy and Buildings* 38(4):340-348.

Luo, C., B. Moghtaderi, and A. Page, 2009. Modelling of wall heat transfer using modified conduction transfer function, finite volume and complex Fourier analysis methods. *Energy and Buildings*, In Press.

Xu, X., and S. Wang. 2008. A simplified dynamic model for existing buildings using CTF and thermal network models. *International Journal of Thermal Sciences* 47(9):1249-1262.

Cossali, G.E. 2007. Dynamic response of a non-homogeneous 1D slab under periodic thermal excitation. *International Journal of Heat and Mass Transfer* 50(19-20):3943-3948.

Cossali, G.E. 2007. The heat storage capacity of a solid spherical body under general periodic thermal excitation. *International Communications in Heat and Mass Transfer* 34(6):692-702.

Cossali, G.E. 2007. The heat storage capacity of a periodically heated slab under general boundary conditions. *International Journal of Thermal Sciences* 46(9):869-877.

Xu, X., W. Shengwei, and Y. Chen. 2007. An improvement to frequency-domain regression method for calculating conduction transfer functions of building walls. *Applied Thermal Engineering* 28(7):661-667.

Fisher, D., S. Rees, S. Padhmanabhan, and A. Murugappan. 2006. Implementation and Validation of Ground-Source Heat Pump System Models in an Integrated Building and System Simulation Environment. *HVAC&R Research* 12(3a):693-710.

Marcotte, D., P. Pasquier, F. Sheriff, and M. Bernier. 2010. The importance of axial effects for borehole design of geothermal heat-pump systems. *Renewable Energy* 35(4):763-770.

Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.

He, M., S.J. Rees, and L. Shao. 2009. Applications of a dynamic three-dimensional numerical model for borehole heat exchangers. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Gao, Q., M. Li, Z. Xuan, and J.D. Spitler. 2006. Practice and Task Developing Underground Thermal Energy Storage in China. *Proceedings of the 10th International Conference on Thermal Energy Storage-Ecostock 2006, Pomona, New Jersey*.

Gao, Q., Y. Huang, Y. Liu, M. Lin, and M. Li. 2009. Performance of once running and prospect of thermal energy storage in road hydronic snow-ice melting. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

Radermacher, R., L. Cremaschi, and R.A. Schwentker. 2006. Modeling of oil retention in the suction line and evaporator of air-conditioning systems. *HVAC and Research* 12(1):35–56.

Youbi-Idrissi, M., and J. Bonjour. 2008. The effect of oil in refrigeration: Current research issues and critical review of thermodynamic aspects. *International Journal of Refrigeration* 31(2):165-179.

Ding, G.L. 2007. Recent developments in simulation techniques for vapour-compression refrigeration systems. *International Journal of Refrigeration* 30(7):1119-1133.

Trutassanawin, S., E. Groll, S. Garimella, and L. Cremaschi. 2006. Experimental investigation of a miniature-scale refrigeration system for electronics cooling. *IEEE Transactions on Components, Packaging, and Manufacturing Technology* 29(3):678–687.

Wu, Y.-T., C.-F. Ma, and X.-H. Zhong. 2010. Development and experimental investigation of a miniature-scale refrigeration system. *Energy Conversion and Management* 51(1)81-88.

Bertsch, S.S., E.A. Groll, and S.V. Garimella. 2009. Effects of heat flux, mass flux, vapor quality, and saturation temperature on flow boiling heat transfer in microchannels. *International Journal of Multiphase Flow* 35(2):142-154.

Sathe, A.A., E.A. Groll, and S.V. Garimella. 2009. Optimization of electrostatically actuated miniature compressors for electronics cooling. *International Journal of Refrigeration* 32(7):1517-1525.

Sung, T., D. Oh, S. Jin, T. Seo, and J. Kim. 2009. Optimal design of a micro evaporator with lateral gaps. *Applied Thermal Engineering* 29(14-15): 2921-2926.

Bertsch, S.S., E.A. Groll, and S.V. Garimella. 2009. Effects of heat flux, mass flux, vapor quality, and saturation temperature on flow boiling heat transfer in microchannels. *International Journal of Multiphase Flow* 35(2):142-154.

Bertsch, S.S., E.A. Groll, and S.V. Garimella. 2008. Refrigerant flow boiling heat transfer in parallel microchannels as a function of local vapor quality. *International Journal of Heat and Mass Transfer* 51(19-20):4775-4787.

Xu, X., and J. Spitler. 2006. Modeling of vertical ground loop heat exchangers with variable convective resistance and thermal mass of the fluid. *Proceedings of the 10th international conference on thermal energy storage, Pomona, NJ, 2006*.

Lamarche, L. 2009. A fast algorithm for the hourly simulations of ground-source heat pumps using arbitrary response factors. *Renewable Energy* 34(10):2252-2258.

Yavuzturk, C., A.D. Chiasson, and J.E. Nydahl. 2009. Simulation Model for Ground Loop Heat Exchangers. *ASHRAE Transactions* 115(2):45-59.

Bandyopadhyay, G., M. Kulkarni, and M. Mann. 2008. A New Approach to Modeling Ground Heat Exchangers in the Initial Phase of Heat-Flux Build Up. *ASHRAE Transactions* 114(2):428-439.

Marcotte, D., and P. Pasquier. 2008. Fast fluid and ground temperature computation for geothermal ground-loop heat exchanger systems. *Geothermics* 37(6):651-665.

Marcotte, D., and P. Pasquier. 2008. On the estimation of thermal resistance in borehole thermal conductivity test. *Renewable Energy* 33(11):2407-2415.

CreMASchi, L., Y. Hwang, and R. Radermacher. 2005. Experimental investigation of oil retention in air conditioning systems. *International Journal of Refrigeration* 28(7):1018–1028.

Youbi-Idrissi, M., and J. Bonjour. 2008. The effect of oil in refrigeration: Current research issues and critical review of thermodynamic aspects. *International Journal of Refrigeration* 31(2):165-179.

Liu, X. 2005. Development and experimental validation of simulation of hydronic snow melting systems for bridges. PhD Dissertation, School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK.

Marcotte, D., and P. Pasquier. 2008. Fast fluid and ground temperature computation for geothermal ground-loop heat exchanger systems. *Geothermics* 37(6):651-665.

McQuiston, F.C., J.D. Parker, and J.D. Spitler. 2005. *Heating, Ventilating and Air Conditioning: analysis and design*, 6th edition. New York: Wiley & Sons, Inc.

Ploskic, A., and S. Holmberg. 2010. Heat emission from thermal skirting boards. *Building and Environment* 45(5):1123-1133.

Nakagawa, M., M.S. Berana, and A. Kishine. 2009. Supersonic two-phase flow of CO<sub>2</sub> through converging–diverging nozzles for the ejector refrigeration cycle. *International Journal of Refrigeration* 32(6):1195-1202.

Chataigner, Y., L. Gosselin, and G. Doré. 2009. Optimization of embedded inclined open-ended channel in natural convection used as heat drain. *International Journal of Thermal Sciences* 48(6):1151-1160.

Zhu, L., R. Hurt, D. Correa, and R. Boehm. 2009. Comprehensive energy and economic analyses on a zero energy house versus a conventional house. *Energy* 34(9):1043-1053.

Khan, N., Y. Su, and S. Riffat. 2008. A review on wind driven ventilation techniques. *Energy and Buildings* 40(8):1586-1604.

Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504.

Tian, W., Y. Wang, Y. Xie, D. Wu, L. Zhu, and J. Ren. 2007. Effect of building integrated photovoltaics on microclimate of urban canopy layer. *Building and Environment* 42(5):1891-1901.

Orio, C.D., C.N. Johnson, S.J. Rees, A. Chiasson, Z. Deng, and J.D. Spitler. 2005. A survey of standing column well installations in North America. *ASHRAE Trans* 111(2):109-121.

Lee, J.Y. 2009. Current status of ground source heat pumps in Korea. *Renewable and Sustainable Energy Reviews* 13(6-7):1560-1568.

Sanner, B., G. Hellstrom, J.D. Spitler, and S. Gehlin. 2005. Thermal response test — current status and world-wide application. *Proceedings of world geothermal congress 2005, Antalya, Turkey*.

Wang, H., C. Qi, H. Du, and J. Gu. 2010. Improved method and case study of thermal response test for borehole heat exchangers of ground source heat pump system. *Renewable Energy* 35(3):727-733.

Bandos, T.V., Á. Montero, E. Fernández, J.L.G. Santander, J.M. Isidro, J. Pérez, P.J.F. de Córdoba, and J.F. Urchueguía. 2009. Finite line-source model for borehole heat exchangers: effect of vertical temperature variations. *Geothermics* 38(2):263-270.

Bandos, T.V., A. Montero, E. Fernandez, A. Reig, and J.F. Urchueguia. 2009. Improvement in the estimating of ground thermal properties from geothermal response tests. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

Banks, D., J. Withers, and R. Freeborn. 2009. An overview of the results of in situ thermal response testing in the U.K. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

Esen, H., and M. Inalli. 2009. In-situ thermal response test for ground source heat pump system in Elazığ, Turkey. *Energy and Buildings* 41(4):395-401.

Fujii, H., H. Okubo, M. Chono, M. Sasada, S. Takasugi, and M. Tateno. 2009. Application of optical fiber thermometers in thermal response tests for detailed geological descriptions. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

- Fujii, H., H. Okubo, K. Nishi, R. Itoi, K. Ohyama, and K. Shibata. 2009. An improved thermal response test for U-tube ground heat exchanger based on optical fiber thermometers. *Geothermics* 38(4):399-406.
- Kharseh, M., and B. Nordell. 2009. First thermal response test in Syria. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*
- Liu, Y.D., and R.A. Beier. 2009. Required Duration For Borehole Test Validated By Field Data. *ASHRAE Transactions* 115(2):782-792.
- Liu, J., X. Zhang, and J. Gao, and J. Yang. 2009. Evaluation of heat exchange rate of GHE in geothermal heat pump systems. *Renewable Energy* 34(12):2898-2904
- Reuss, M., M. Proell, and B Nordell. 2009. IEA ECES –ANNEX 21– thermal response test. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*
- Sanner, B., E. Mands, M. Sauer, and E. Grundmann. 2009. Economic aspects of thermal response test – advantages, technical improvements, commercial application. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*
- Gao J., X. Zhang, J. Liu, K. Li, and J. Yang. 2008. Numerical and experimental assessment of thermal performance of vertical energy piles: An application. *Applied Energy* 85(10):901-910.
- Mattsson, N., G. Steinmann, and L. Laloui. 2008. Advanced compact device for the in situ determination of geothermal characteristics of soils. *Energy and Buildings* 40(7):1344-1352.
- Fuji, H., T. Inatomi, R. Itoi, and Y. Uchida. 2007. Development of suitability maps for ground-coupled heat pump systems using groundwater and heat transport models. *Geothermics* 36(5):459-472.
- Fujii, H., H. Okubo, and R. Itoi. 2006. Thermal Response Tests Using Optical Fiber Thermometers. *GRC Transactions*.
- Spitler, J. 2005. Ground-source heat pump system research — past, present, and future. *HVAC&R Research* 11(2):165–167.
- Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.
- Bandos, T.V., Á. Montero, E. Fernández, J.L.G. Santander, J.M. Isidro, J. Pérez, P.J.F. de Córdoba, and J.F. Urchueguía. 2009. Finite line-source model for borehole heat exchangers: effect of vertical temperature variations. *Geothermics* 38(2):263-270.

Cui, P., H. Yang, and Z. Fang. 2008. Numerical analysis and experimental validation of heat transfer in ground heat exchangers in alternative operation modes. *Energy and Buildings* 40(6):1060-1066.

Gao, J., X. Zhang, J. Liu, K.S. Li, and J. Yang. 2008. Thermal performance and ground temperature of vertical pile-foundation heat exchangers: A case study. *Applied Thermal Engineering* 28(17-18):2295-2304.

Hamada, Y., H. Saitoh, M. Nakamura, H. Kubota, and K. Ochifuji. 2007. Field performance of an energy pile system for space heating. *Energy and Buildings* 39(5):517-524.

Spitler, J.D., X. Liu, S.J. Rees, and C. Yavuzturk. 2005. Simulation and Optimization of Ground Source Heat Pump Systems. *8th International Energy Agency Heat Pump Conference, Las Vegas. May 30-June 2.*

Verhelst, C., L. Helsen, G. Vandersteen, and J. Schoukens. 2009. A linear dynamic borehole model for use in model based predictive control. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Barnaby, C.S., J.D. Spitler, and D. Xiao. 2004. Updating the ASHRAE/ACCA residential heating and cooling load calculation procedures and data. RP-1199 final report. ASHRAE.

Barnaby, C.S., and J.L. Wright. 2009. Improving Load Calculations for Fenestration with Shading Devices. *ASHRAE Transactions* 115(2):31-44.

Chantrasrisalai, C., and D.E. Fisher. 2004. Comparative analysis of one-dimensional slat-type blind models. *Proceedings of SimBuild 2004, Boulder, Colorado*, pp. 1-10.

Chaiyapinunt, S., and S. Worasinchai. 2009. Development of a model for calculating the longwave optical properties and surface temperature of a curved venetian blind. *Solar Energy* 83(6):817-831.

Chaiyapinunt, S., and S. Worasinchai. 2009. Development of a mathematical model for a curved slat venetian blind with thickness. *Solar Energy* 83(7):1093-1113.

Tzempelikos, A. 2008. The impact of venetian blind geometry and tilt angle on view, direct light transmission and interior illuminance. *Solar Energy* 82(12):1172-1191.

Wright, J.L. 2008. Calculating Center-Glass Performance Indices of Glazing Systems with Shading Devices. *ASHRAE Transactions* 114(2):199-209.



Crawley, D.B., L.K. Lawrie, C.O. Pedersen, F.C. Winkelmann, M.J. Witte, R.K. Strand, R.J. Liesen, W.F. Buhl, Y.J. Huang, R.H. Henninger, J. Glazer, D.E. Fisher, D.B. Shirey, B.T. Griffith, P.G. Ellis, and L. Gu. 2004. EnergyPlus: new, capable, and linked. *Journal of Architectural and Planning Research* 21(Winter 2004):4.

Bolster, D., A. Maillard, and P. Linden. 2008. The response of natural displacement ventilation to time-varying heat sources. *Energy and Buildings* 40(12):2099-2110.

Freire, R.Z., G.H.C. Oliveira, and N. Mendes. 2008. Development of regression equations for predicting energy and hygrothermal performance of buildings. *Energy and Buildings* 40(5):810-820.

Malkawi, A.M. 2004. Developments in environmental performance simulation. *Automation in Construction* 13(4):437-445.

Crawley, D.B., K. Linda, Lawrie, O. Curtis, Pedersen, C. Frederick, Winkelmann, Michael J. Witte, Richard K. Strand, Richard J. Liesen, Buhl S Walter F., Yu Joe Huang, Robert H. Henninger, Jason Glazer, Fisher S Daniel E., Don B. Shirey III, Brent T. Griffith, Peter G. Ellis, and L. Gu. 2004. EnergyPlus: an update. SimBuild 2004 Conference, Boulder, Colorado.

Luo, C., B. Moghtaderi, and A. Page, 2009. Modelling of wall heat transfer using modified conduction transfer function, finite volume and complex Fourier analysis methods. *Energy and Buildings*, In Press.

Deng, Z. Modeling of Standing Column Wells in Ground Source Heat Pump Systems. Ph.D. Thesis, December 2004.

Chiasson, A.D. 2006. A Simplified Design Method for PEX Plastic Downhole Heat Exchangers. *GRC Transactions* 30:191-195

Iu, I., and D.E. Fisher. 2004. Application of conduction transfer functions and periodic response factors in cooling load calculation procedures. *ASHRAE Transactions* 110(2):829-841.

Luo, C., B. Moghtaderi, and A. Page, 2009. Modelling of wall heat transfer using modified conduction transfer function, finite volume and complex Fourier analysis methods. *Energy and Buildings*, In Press.

Maestre, I.R., P.R. Cubillas, and L. Pérez-Lombard. 2009. Transient heat conduction in multi-layer walls: An efficient strategy for Laplace's method. *Energy and Buildings*, In Press.

Yao, Y., Z. Lian, W. Liu, Z. Hou, and M. Wu. 2007. Evaluation program for the energy-saving of variable-air-volume systems. *Energy and Buildings* 39(5):558-568.

Liu, X., and J.D. Spitler. 2004. Simulation Based Investigation on the Design of Hydronic Snow Melting System. *Proceedings of the Transportation Research Board 83rd Annual Meeting, Washington, D.C. January 5-6.*

Gao, Q., Y. Huang, Y. Liu, M. Lin, and M. Li. 2009. Performance of once running and prospect of thermal energy storage in road hydronic snow-ice melting. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Rees, S.J., J.D. Spitler, Z. Deng, C.D. Orio, and C.N.A. Johnson. 2004. A study of geothermal heat pump and standing column well performance. *ASHRAE Transactions* 110(1):3-13.

Al-Sarkhi, E.A., S. Nijmeh, and B. Akash. 2008. Performance evaluation of standing column well for potential application of ground source heat pump in Jordan. *Energy Conversion and Management* 49(4):863-872

Young, T. 2004. Development, verification and design analysis of the borehole fluid thermal mass model for approximating short term borehole thermal response. MS Thesis, School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK.

Javed, S., P. Fahlén, and J. Claesson. 2009. Vertical ground heat exchangers: a review of heat flow models. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Yavuzturk, C., A.D. Chiasson, and J.E. Nydahl. 2009. Simulation Model for Ground Loop Heat Exchangers. *ASHRAE Transactions* 115(2):45-59.

Kummert, M. 2008. Sub-hourly simulation of residential ground coupled heat pump systems. *Building Services Engineering Research and Technology* 29(1):27-44.

Marcotte, D., and P. Pasquier. 2008. Fast fluid and ground temperature computation for geothermal ground-loop heat exchanger systems. *Geothermics* 37(6):651-665.

Marcotte, D., and P. Pasquier. 2008. On the estimation of thermal resistance in borehole thermal conductivity test. *Renewable Energy* 33(11):2407-2415.

Lamarche, L., and B. Beauchamp. 2007. New solutions for the short-time analysis of geothermal vertical boreholes. *International Journal of Heat and Mass Transfer* 50(7-8):1408-1419.

Chantrasrisalai, C., V. Ghatti, D.E. Fisher, and D.G. Scheatzle. 2003. Experimental Validation of the EnergyPlus Low-Temperature Radiant Simulation. *ASHRAE Transactions* 109(2):614-626.

Alvarado, J.L., W. Terrell Jr., and M.D. Johnson. 2009. Passive cooling systems for cement-based roofs. *Building and Environment* 44(9):1869-1875.

Tian, Z., and J.A. Love. 2009. Energy performance optimization of radiant slab cooling using building simulation and field measurements. *Energy and Buildings* 41(3):320-330.

- Strand, R.K., and K.T. Baumgartner. 2005. Modeling radiant heating and cooling systems: integration with a whole-building simulation program. *Energy and Buildings* 37(4):389-397.
- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.
- Morteza, M.A., N.G. Panah, and T.F. Smith. 2004. Proof of concept modeling of energy transfer mechanisms for radiant conditioning panels. *Energy Conversion and Management* 45(13-14):2005-2017.
- Eldridge, D., D.E. Fisher, I.S. Iu, and C. Chantrasrisalai. 2003. Experimental Validation of Design Cooling Load Procedures: Facility Design. *ASHRAE Transactions* 109(2):151-159.
- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.
- Gehlin, S., and J.D. Spitler. 2003. Thermal response tests for BTES applications—state of the art 2001. *Proceedings of Future stock 2003, 9th International Conference on Thermal Energy Storage, Warsaw, Poland, 2003*, pp. 381–387.
- Liu, Y.D. and R.A. Beier. 2009. Required Duration For Borehole Test Validated By Field Data. *ASHRAE Transactions* 115(2):782-792.
- Mattsson, N., G. Steinmann, and L. Laloui. 2008. Advanced compact device for the in situ determination of geothermal characteristics of soils. *Energy and Buildings* 40(7):1344-1352.
- Iu, I.S., D.E. Fisher, C. Chantrasrisalai, and D. Eldridge. 2003. Experimental Validation of Design Cooling Load Procedures: The Radiant Time Series Method. *ASHRAE Transactions* 109(2):139-150.
- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.
- Jin, H., and J. Spitler. 2003. Parameter estimation based model of water-to-water heat pumps with scroll compressors and water/glycol solutions. *Building Services Engineering Research and Technology* 24 (3):203–219.
- Pulat, E., S. Coskun, K. Unlu, and N. Yamankaradeniz. 2009. Experimental study of horizontal ground source heat pump performance for mild climate in Turkey. *Energy* 34(9):1284-1295.
- Khan, M.H., A. Varanasi, J.D. Spitler, D.E. Fisher, and R.D. Delahoussaye. 2003. Hybrid ground source heat pump system simulation using visual modeling tool. *Proceedings of Building Simulation 2003, Eindhoven, Netherlands*, pp. 641–648.
- Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.
- Omer, A.M. 2008. Ground-source heat pumps systems and applications. *Renewable and Sustainable Energy Reviews* 12(2):344-371.

Pedersen, C.O., D.E. Fisher, R.J. Liesen, and R.K. Strand. 2003. ASHRAE Toolkit for Building Load Calculations. *ASHRAE Transactions* 109(1):583-589.

Xu, X., and S. Wang. 2008. A simple time domain calculation method for transient heat transfer models. *Energy and Buildings* 40(9):1682-1690.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*, Chapter 6. Blackwell Publishing Ltd.

Spitler, J., and C. Underwood. 2003. UK application of direct cooling ground source heat pump systems. *Proceedings of CIBSE/ASHRAE Conference, Edinburgh, UK*.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*. Chapter 6. Oxford: Blackwell Publishing Ltd.

Bose, J.E., M.D. Smith, and J.D. Spitler. 2002. Advances in Ground Source Heat Pump Systems – An International Overview. *Proceedings of the 7th International Energy Agency Heat Pump Conference, Beijing, China*.

Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.

Martos, J., J. Torres, J. Soret, and A. Montero. 2009. New miniaturized wireless instrument to characterize thermal properties of borehole heat exchangers. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

Tittlein, P., G. Achard, and E. Wurtz. 2009. Modelling earth-to-air heat exchanger behaviour with the convolutive response factors method. *Applied Energy* 86(9):1683-1691.

Esen, H., M. Inalli, A. Sengur, and M. Esen. 2008. Modeling a ground-coupled heat pump system by a support vector machine. *Renewable Energy* 33(8):1814-1823.

Trillat-Berdal, V., B. Souyri, and G. Achard. 2007. Coupling of geothermal heat pumps with thermal solar collectors. *Applied Thermal Engineering* 27(10):1750-1755.

Trillat-Berdal, V., B. Souyri, and G. Fraisse. 2006. Experimental study of a ground-coupled heat pump combined with thermal solar collectors. *Energy and Buildings* 38(12):1477-1484.

Gasparella, A., G.A. Longo, and R. Marra. 2005. Combination of ground source heat pumps with chemical dehumidification of air. *Applied Thermal Engineering* 25(2-3):295-308.

Diao, N., Q. Li, and Z. Fang. 2004. Heat transfer in ground heat exchangers with groundwater advection. *International Journal of Thermal Sciences* 43:1203-1211.

Chiasson, A.D., J.D. Spitler, S.J. Rees, and M.D. Smith. 2002. A Model for Simulating the Performance of a Pavement Heating System as a Supplemental Heat Rejecter with Closed-Loop Ground-Source Heat Pump Systems. *ASME Journal of Solar Energy Engineering* 122(4):183-191.

Wang, H., J. Zhao, and Z. Chen. 2008. Experimental investigation of ice and snow melting process on pavement utilizing geothermal tail water. *Energy Conversion and Management* 49(6):1538-1546.

Gasparella, A., G.A. Longo, and R. Marra. 2005. Combination of ground source heat pumps with chemical dehumidification of air. *Applied Thermal Engineering* 25(2-3):295-308.

Goldstein, R.J., E.G. Eckert, W.E. Ibele, and S.V. Patankar. 2002. Heat Transfer – a Review of 2000 Literature. *International Journal of Heat and Mass Transfer* 45:2853-2957.

Crawley, D.B., L.K. Lawrie, F.C. Winkelmann, W.F. Buhl, C.O. Pedersen, R.K. Strand, R.J. Liesen, D.E. Fisher, M.J. Witte, R.H. Henninger, J. Glazer, and D. Shirey. 2002. EnergyPlus: new, capable, and linked. *Proceedings of the 2002 International Green Building Conference, Austin, Texas*.

Strand, R.K., and K.T. Baumgartner. 2005. Modeling radiant heating and cooling systems: integration with a whole-building simulation program. *Energy and Buildings* 37(4):389-397.

Crawley, D.B., L.K. Lawrie, C.O. Pedersen, R.K. Strand, R.J. Liesen, F.C. Winkelmann, W.F. Buhl, Y.J. Huang, M.J. Witte, R.J. Henninger, J. Glazer, D.E. Fisher, and D. Shirey. 2002. Energyplus: new, capable and linked. *Proceedings of E-sim Building Simulation, Montréal, Canada*, pp. 244–251.

Hviid, C.A., T.R. Nielsen, and S. Svendsen. 2008. Simple tool to evaluate the impact of daylight on building energy consumption. *Solar Energy* 82(9):787-798.

Tzempelikos, A., and A.K. Athienitis . 2007. The impact of shading design and control on building cooling and lighting demand. *Solar Energy* 81(3): 369-382.

Hwang, Y., L. Cremaschi, R. Radermacher, T. Hirata, Y. Ozaki, and T. Hotta. 2002. Oil circulation ratio measurement in CO<sub>2</sub> cycle. *Proceedings of New Technologies in Commercial Refrigeration, University of Illinois, IL, USA*.

Hwang, Y., J.P. Lee, and R. Radermacher. 2007. Oil distribution in a transcritical CO<sub>2</sub> air-conditioning system. *Applied Thermal Engineering* 27(14-15):2618-2625.

Fukuta, M., T. Yanagisawa, M. Shimasaki, and Y. Ogi. 2006. Real-time measurement of mixing ratio of refrigerant/refrigeration oil mixture. *International Journal of Refrigeration* 29(7):1058-1065.

Jin, H., and J.D. Spitler. 2002. A Parameter Estimation Based Model of Water-To-Water Heat Pumps for use in Energy Calculation Programs. *ASHRAE Transactions* 108(1):3-17.

Fong, K.F., T.T. Chow, C.K. Lee, Z. Lin, and L.S. Chan. 2010. Comparative study of different solar cooling systems for buildings in subtropical city. *Solar Energy* 84(2):227-244.

Seghouani, L., and N. Galanis. 2009. Quasi-steady state model of an ice rink refrigeration system. *Building Simulation* 2:119-132.

Slim, R., A. Zoughaib, and D. Clodic. 2008. Modeling of a solar and heat pump sludge drying system. *International Journal of Refrigeration* 31(7):1156.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*. Chapter 6. Oxford: Blackwell Publishing Ltd.

Rees, S.J., D. Xiao, and J.D. Spitler. 2002. An Analytical Verification Test Suite for Building Fabric Models in Whole Building Energy Simulation Programs. *ASHRAE Transactions* 108(1):30-41.

Palyvos, J.A. 2008. A survey of wind convection coefficient correlations for building envelope energy systems' modeling. *Applied Thermal Engineering* 28(8-9):801-808.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*, Chapter 7. Blackwell Publishing Ltd.

Randriamiarinjatovo, D., and M. Bernier. 2003. Building Energy Simulation with Ease. Eighth International IBPSA Conference, August 11-14. Eindhoven, Netherlands.

Rees, S.J., J.D. Spitler, and X. Xiao. 2002. Transient Analysis of Snow-melting System Performance. *ASHRAE Transactions* 108(2):406-423.

Gao, Q., Y. Huang, Y. Liu, M. Lin, and M. Li. 2009. Performance of once running and prospect of thermal energy storage in road hydronic snow-ice melting. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

Wang, H., and Z. Chen. 2009. Study of critical free-area ratio during the snow-melting process on pavement using low-temperature heating fluids. *Energy Conversion and Management* 50(1):157-165.

Wang, H., J. Zhao, and Z. Chen. 2008. Experimental investigation of ice and snow melting process on pavement utilizing geothermal tail water. *Energy Conversion and Management* 49(6):1538-1546

Liu, X., S.J. Rees, and J.D. Spitler. 2007. Modeling snow melting on heated pavement surfaces. Part I: Model development. *Applied Thermal Engineering* 27(5-6):1115-1124.

ASHRAE. 2003. *2003 ASHRAE HVAC Applications Handbook*. Chapter 50, Snow Melting and Freeze Protection. Atlanta: ASHRAE.

Strand, R.K., R.J. Liesen, D.E. Fisher, and C.O. Pedersen. 2002. Modular HVAC Simulation and the Future Integration on Alternative Cooling Systems in a New Building Energy Simulation Program. *ASHRAE Transactions* 108(2):1107-1118.

Zhou, Y.P., J.Y. Wu, R.Z. Wang, S. Shiochi, and Y.M. Li. 2008. Simulation and experimental validation of the variable-refrigerant-volume (VRV) air conditioning system in EnergyPlus. *Energy and Buildings* 40(6):1041-1047.

Kalagasidis, A.S., P. Weitzmann, T.R. Nielsen, R. Peuhkuri, C.E. Hagentoft, and C. Rode. 2007. The International Building Physics Toolbox in Simulink. *Energy and Buildings* 39(6):665-674.

Zhou, Y.P., J.Y. Wu, R.Z. Wang, and S. Shiochi. 2007. Energy simulation in the variable refrigerant flow air-conditioning system under cooling conditions. *Energy and Buildings* 39(2):212-220.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*, Chapter 7. Blackwell Publishing Ltd.

Weitzmann, P., A.S. Kalagasidis, T.R. Nielson, R. Peuhkuri, and C. Hagentoft. 2003. Presentation of the International Building Physics Toolbox for Simulink. The 8th International IBPSA Conference, August 11-14. Eindhoven, Netherlands.

Witte, H.J.L., G.J. van Gelder, and J.D. Spitler. 2002. In Situ Measurement of Ground Thermal Conductivity: The Dutch Perspective. *ASHRAE Transactions* 108(1):263-272.

Gustafsson, A.-M., and L. Westerlund. 2010. Multi-injection rate thermal response test in groundwater filled borehole heat exchanger. *Renewable Energy* 35(5):1061-1070.

Wang, H., C. Qi, H. Du, and J. Gu. 2010. Improved method and case study of thermal response test for borehole heat exchangers of ground source heat pump system. *Renewable Energy* 35(3):727-733.

Bandos, T.V., Á. Montero, E. Fernández, J.L.G. Santander, J.M. Isidro, J. Pérez, P.J.F. de Córdoba, and J.F. Urchueguía. 2009. Finite line-source model for borehole heat exchangers: effect of vertical temperature variations. *Geothermics* 38(2):263-270.

Bandos, T.V., A. Montero, E. Fernandez, A. Reig, and J.F. Urchueguia. 2009. Improvement in the estimating of ground thermal properties from geothermal response tests. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

De Carli, M., M. Tonon, A. Zarrella, and R. Zecchin. 2009. A computational capacity resistance model (CaRM) for vertical ground-coupled heat exchangers. *Renewable Energy*, In Press.

- Gustafsson, A.M. 2009. Multi injection rate – Thermal response test. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*
- Liu, Y.D. and R.A. Beier. 2009. Required Duration For Borehole Test Validated By Field Data. *ASHRAE Transactions* 115(2):782-792.
- Pulat, E., S. Coskun, K. Unlu, and N. Yamankaradeniz. 2009. Experimental study of horizontal ground source heat pump performance for mild climate in Turkey. *Energy* 34(9):1284-1295.
- Wang, H., C. Qi, H. Du, and J. Gu. 2009. Thermal performance of borehole heat exchanger under groundwater flow: A case study from Baoding. *Energy and Buildings* 41(12):1368-1373.
- Mattsson, N., G. Steinmann, and L. Laloui. 2008. Advanced compact device for the in situ determination of geothermal characteristics of soils. *Energy and Buildings* 40(7):1344-1352.
- Lim, K., S. Lee, and C. Lee. 2007. An experimental study on the thermal performance of ground heat exchanger. *Experimental Thermal and Fluid Science* 31(8):985-990.
- Li, X., Z. Chen, and J. Zhao. 2006. Simulation and experiment on the thermal performance of U-vertical ground coupled heat exchanger. *Applied Thermal Engineering* 26(14-15):1564-1571.
- Signorelli, S., S. Bassetti, D. Pahud, and T. Kohl. 2006. Numerical evaluation of thermal response tests. *Geothermics* 36(2):141-166.
- Gehlin, S.E.A.. 2003. Determining Undisturbed Ground Temperature for Thermal Response Test. *ASHRAE Transactions* 109(1):151-156.
- Chiasson, A., and J.D. Spitler. 2001. Modeling Approach to Design of a Ground-Source Heat Pump Bridge Deck Heating System. *Transportation Research Record* 1741:207-215.
- Chiasson, A.D., and C. Yavuzturk. 2009. A Design Tool for Hybrid Geothermal Heat Pump Systems in Heating-Dominated Buildings. *ASHRAE Transactions* 115(2):60-73.
- Hamada, Y., M. Nakamura, and H. Kubota. 2007. Field measurements and analyses for a hybrid system for snow storage/melting and air-conditioning by using renewable energy. *Applied Energy* 84(2):117-134.



Crawley, D.B., K.L. Linda, O.P. Curtis, K.S. Richard, J.L. Richard, F.C. Winklemann, W.F. Buhl, Y. Huang J., A.E. Erdem, D. Fisher, M.J. Witte, and J. Glazer. 2001. EnergyPlus: Creating a New-Generation Building Energy Simulation Program. *Energy and Buildings* 33(4):319-331.

Marcotte, D., P. Pasquier, F. Sheriff, and M. Bernier. 2010. The importance of axial effects for borehole design of geothermal heat-pump systems. *Renewable Energy* 35(4):763-770.

Anastaselos, D., E. Giama, and A.M. Papadopoulos. 2009. An assessment tool for the energy, economic and environmental evaluation of thermal insulation solutions. *Energy and Buildings* 41(11):1165-1171.

Aste, N., A. Angelotti, and M. Buzzetti. 2009. The influence of the external walls thermal inertia on the energy performance of well insulated buildings. *Energy and Buildings* 41(11):1181-1187.

Beausoleil-Morrison, I., and K. Lombardi. 2009. The calibration of a model for simulating the thermal and electrical performance of a 2.8 kW<sub>AC</sub> solid-oxide fuel cell micro-cogeneration device. *Journal of Power Sources* 186(1):67-79.

Pakanen, J., and S. Karjalainen . 2009. A state machine approach in modelling the heating process of a building. *Energy and Buildings* 41(5):528-533.

Bolster, D., A. Maillard, and P. Linden. 2008. The response of natural displacement ventilation to time-varying heat sources. *Energy and Buildings* 40(12):2099-2110.

Papadopoulos, A.M., S. Oxizidis, and L. Papathanasiou. 2008. Developing a new library of materials and structural elements for the simulative evaluation of buildings' energy performance. *Building and Environment* 43(5):710-719.

Xu, H., and J. Niu. 2006. Numerical procedure for predicting annual energy consumption of the under-floor air distribution system. *Energy and Buildings* 38(6):641-647.

Wetter, M. 2005. BuildOpt—a new building energy simulation program that is built on smooth models. *Building and Environment* 40(8):1085-1092.

Wetter, M., and E. Polak. 2005. Building design optimization using a convergent pattern search algorithm with adaptive precision simulations. *Energy and Buildings* 37(6):603-612.

Wetter, M., and J. Wright. 2004. A comparison of deterministic and probabilistic optimization algorithms for non-smooth simulation-based optimization. *Building and Environment* 39(8):989-999.

Choudhary R., A. Malkawi, and P. Y. Papalambros. 2003. A Hierarchical Design Optimization Framework for Building Performance Analysis. Eighth International IBPSA Conference, August 11-14. Eindhoven, Netherlands.

Guan, Y., B.W. Jones, M.H. Hosni, and T.P. Giolda. 2003. Literature Review of the Advances in Thermal Comfort Modeling. *ASHRAE Transactions* 109(2):898-907.

Wetter, M., and E. Polak. 2003. A Convergent Optimization Method Using Pattern Search Algorithms with Adaptive Simulation Precision. Eighth International IBPSA Conference, August 11-14. Eindhoven, Netherlands.

Wetter, M., and J. Wright. 2003. Comparison of Generalized Pattern Search and Genetic Algorithm Optimization Method. Eighth International IBPSA Conference, August 11-14. Eindhoven, Netherlands.

Crawley, D.B., L.K. Lawrie, F.C. Winkelmann, W.F. Buhl, C.O. Pedersen, R.K. Strand, R.J. Liesen, D.E. Fisher, M.J. Witte, R.H. Henninger, J. Glazer, and D. Shirey. 2001. EnergyPlus: New, Capable, and Linked. *Proceedings of the Performance of Exterior Envelopes of Whole Buildings VIII, Clearwater Beach, Florida, 2001*.

Hitchcock, R., and W. Carroll. 2003. Delight: A Daylighting and Electric Lighting Simulation Engine. Eighth International IBPSA Conference, August 11-14. Eindhoven, Netherlands.

Gehlin, S., and J.D. Spitler. 2001. Thermal Response Test-State of the Art 2001, Report IEA ECES Annex13.

Katsura, T., K. Nagano, S. Hori, and T. Okawada. 2009. Investigation of groundwater flow effect on the thermal response test result. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

Katsura, T., K.Nagano, S.Narita, S.Takeda, Y. Nakamura, and A. Okamoto. 2009. Calculation algorithm of the temperatures for pipe arrangement of multiple ground heat exchangers. *Applied Thermal Engineering* 29(5-6):906-919.

Pedersen, C.O., R.J. Liesen, R.K. Strand, D.E. Fisher, L. Dong, and P.G. Ellis. 2001. A Toolkit for Building Load Calculations. *RP-987*. Atlanta: ASHRAE.

Barnaby, C.S., and J.L. Wright. 2009. Improving Load Calculations for Fenestration with Shading Devices. *ASHRAE Transactions* 115(2):31-44.

Strand, R.K., and K.T. Baumgartner. 2005. Modeling radiant heating and cooling systems:integration with a whole-building simulation program. *Energy and Buildings* 37(4):389-397.

- Griffith, B., and Q.Y. Chen. 2004. Framework for coupling room air models to heat balance model load and energy calculations (RP-1222). *HVAC&R Research* 10(2):91-111.
- Strand, R.K. 2003. Investigation of a Condenser-Linked Cooling System Using a Heat Balance Based Energy Simulation Program. *ASHRAE Transactions* 109(2):647-655.
- Ramamoorthy, M., H. Jin, A. Chiasson, and J.D. Spitler. 2001. Optimal sizing of hybrid ground-source heat pump systems that use a cooling pond as a supplemental heat rejecter – a system simulation approach. *ASHRAE Transactions* 107(1):26-38.
- Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.
- Chiasson, A.D., and C. Yavuzturk. 2009. A Design Tool for Hybrid Geothermal Heat Pump Systems in Heating-Dominated Buildings. *ASHRAE Transactions* 115(2):60-73.
- Hackel, S., G. Nellis, and S. Klein. 2009. Optimization of Cooling-Dominated Hybrid Ground-Coupled Heat Pump Systems. *ASHRAE Transactions* 115(1):565-580.
- Lee, C.K., and H.N. Lam. 2009. Computer simulation of ground-coupled liquid desiccant air conditioner for sub-tropical regions. *International Journal of Thermal Sciences* 48(12):2365-2374.
- Rees, S.J., and P. Haves. 2001. A Nodal Model for Displacement Ventilation and Chilled Ceiling Systems in Office Spaces. *Building and Environment* 36(6):53-762.
- Griffith, B., and Q.Y. Chen. 2004. Framework for coupling room air models to heat balance model load and energy calculations (RP-1222). *HVAC&R Research* 10(2):91-111.
- Spitler, J., S. Rees, and X. Dongyi. 2001. Development of an Analytical Verification Test Suite For Whole Building Energy Simulation Programs—Building Fabric. Draft Final Report for ASHRAE 1052-RP, School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, Oklahoma.
- Yezioro, A., B. Dong, and F. Leite. 2008. An applied artificial intelligence approach towards assessing building performance simulation tools. *Energy and Buildings* 40(4):612-620.
- Yavuzturk, C. and J.D. Spitler, 2001. Field validation of a short time step model for vertical ground loop heat exchangers. *ASHRAE Transactions* 107(1):617-625.
- Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.
- Yavuzturk, C., A.D. Chiasson, and J.E. Nydahl. 2009. Simulation Model for Ground Loop Heat Exchangers. *ASHRAE Transactions* 115(2):45-59.

Austin, W., C. Yavuzturk, and J.D. Spitler. 2000. Development Of An In-Situ System For Measuring Ground Thermal Properties. *ASHRAE Transactions* 106(1):365-379.

Zanchini, E., S. Lazzari, and A. Priarone. 2010. Effects of flow direction and thermal short-circuiting on the performance of small coaxial ground heat exchangers. *Renewable Energy* 35(6):1255-1265.

Zanchini, E., S. Lazzari, and A. Priarone. 2010. Improving the thermal performance of coaxial borehole heat exchangers. *Energy* 35(2):657-666.

Busso, A., G. Cabral, M. Reuss, and M. Proell. 2009. Two applications for thermal response test data evaluation - TRNSYS type 300 and TRT Analysis tool. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Eswaisi, A.A., M.A. Muntasser, and B. Nordell. 2009. First Thermal Response Test in Libya. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Esen, H., and M. Inalli. 2009. In-situ thermal response test for ground source heat pump system in Elazığ, Turkey. *Energy and Buildings* 41(4):395-401.

Liu, Y.D. and R.A. Beier. 2009. Required Duration For Borehole Test Validated By Field Data. *ASHRAE Transactions* 115(2):782-792.

Sayyaadi, H., E.H. Amlashi, M. Amidpour. 2009. Multi-objective optimization of a vertical ground source heat pump using evolutionary algorithm. *Energy Conversion and Management* 50(8):2035-2046.

Yavuzturk, C., A.D. Chiasson, and J.E. Nydahl. 2009. Simulation Model for Ground Loop Heat Exchangers. *ASHRAE Transactions* 115(2):45-59.

Mattsson, N., G. Steinmann, and L. Laloui. 2008. Advanced compact device for the in situ determination of geothermal characteristics of soils. *Energy and Buildings* 40(7):1344-1352.

Nam, Y., R. Ooka, and S. Hwang. 2008. Development of a numerical model to predict heat exchange rates for a ground-source heat pump system. *Energy and Building* 40(12):2133-2140.

Li, X., Z. Chen, and J. Zhao. 2006. Simulation and experiment on the thermal performance of U-vertical ground coupled heat exchanger. *Applied Thermal Engineering* 26:1564-1571.

Signorelli, S., S. Bassetti, D. Pahud, and T. Kohl. 2006. Numerical evaluation of thermal response tests. *Geothermics* 36(2):141-166.

- Casas, W., and G. Schmitz. 2005. Experiences with a gas driven, desiccant assisted air conditioning system with geothermal energy for an office building. *Energy and Buildings* 37(5):493-501.
- ASHRAE. 2003. *2003 ASHRAE HVAC Applications Handbook*. Chapter 32, Geothermal Energy. Atlanta: ASHRAE.
- Gehlin, S., and G. Hellstrom. 2003. Influence on Thermal Response Test by Groundwater Flow in Vertical Fractures in Hard Rock. *Renewable Energy* 28:2221-2238.
- Philippacopoulos, A.J., and M.L. Berndt. 2001. Influence of Debonding in Ground Heat Exchangers Used with Geothermal Heat Pumps. *Geothermics* 30:527-545.
- Chiasson, A.D., J.D. Spitler, S.J. Rees, M.D. Smith. 2000. A Model for Simulating the Performance of a Shallow Pond as a Supplemental Heat Rejecter with Closed-Loop Ground-Source Heat Pump Systems. *ASHRAE Transactions* 106(2):107-121.
- Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.
- Al-Sarkhi, E.A., S. Nijmeh, and B. Akash. 2008. Performance evaluation of standing column well for potential application of ground source heat pump in Jordan. *Energy Conversion and Management* 49(4):863-872.
- Chen, X., G. Zhang, J. Peng, X. Lin, and T. Liu. 2006. The performance of an open-loop lake water heat pump system in south China. *Applied Thermal Engineering* 26(17-18):2255-2261.
- Gasparella, A., G.A. Longo, and R. Marra. 2005. Combination of ground source heat pumps with chemical dehumidification of air. *Applied Thermal Engineering* 25(2-3):295-308.
- Chiasson, A.D., S.J. Rees, and J.D. Spitler. 2000. A preliminary assessment of the effects of ground-water flow on closed-loop ground-source heat pump systems. *ASHRAE Transactions* 106(1):380-393.
- Gustafsson, A.-M., L. Westerlund, and G. Hellström. 2010. CFD-modelling of natural convection in a groundwater-filled borehole heat exchanger. *Applied Thermal Engineering* 30(6-7): 683-691.
- Gustafsson, A.-M., and L. Westerlund. 2010. Multi-injection rate thermal response test in groundwater filled borehole heat exchanger. *Renewable Energy* 35(5):1061-1070.
- Gustafsson, A.M. 2009. Multi injection rate – Thermal response test. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.

Liebel, H., R.K. Ramstad, B. Frengstad, and B. Brattli. 2009. Groundwater or rock type – what dominates the thermal conductivity in the ground? *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Sanner, B., E. Mands, M. Sauer, and E. Grundmann. 2009. Economic aspects of thermal response test – advantages, technical improvements, commercial application. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Wang, H., C. Qi, H. Du, and J. Gu. 2009. Thermal performance of borehole heat exchanger under groundwater flow: A case study from Baoding. *Energy and Buildings* 41(12):1368-1373.

Gustafsson, A., and S. Gehlin. 2008. Influence of Natural Convection in Water-Filled Boreholes for GCHP. *ASHRAE Transactions* 114(1):416-423.

Lee, C.K., and H.N. Lam. 2008. Computer simulation of borehole ground heat exchangers for geothermal heat pump systems. *Renewable Energy* 33(6):1286-1296.

Mattsson, N., G. Steinmann, and L. Laloui. 2008. Advanced compact device for the in situ determination of geothermal characteristics of soils. *Energy and Buildings* 40(7):1344-1352.

Nam, Y., R. Ooka, and S. Hwang. 2008. Development of a numerical model to predict heat exchange rates for a ground-source heat pump system. *Energy and Building* 40(12):2133-2140.

Zhao, J., H. Wang, X. Li, and C. Dai. 2008. Experimental investigation and theoretical model of heat transfer of saturated soil around coaxial ground coupled heat exchanger. *Applied Thermal Engineering* 28(2-3):116-125

Ondreka, J., M.I. Rüsgen, I. Stober, and K. Czurda. 2007. GIS-supported mapping of shallow geothermal potential of representative areas in south-western Germany—Possibilities and limitations. *Renewable Energy* 32(13):2186-2200.

Signorelli, S., S. Bassetti, D. Pahud, and T. Kohl. 2006. Numerical evaluation of thermal response tests. *Geothermics* 36(2):141-166.

Diao, N., Q. Li, and Z. Fang. 2004. Heat transfer in ground heat exchangers with groundwater advection. *International Journal of Thermal Sciences* 43:1203-1211.

ASHRAE. 2003. *2003 ASHRAE HVAC Applications Handbook*. Chapter 32, Geothermal Energy. Atlanta: ASHRAE.

Gehlin, S., and G. Hellstrom. 2003. Influence on Thermal Response Test by Groundwater Flow in Vertical Fractures in Hard Rock. *Renewable Energy* 28:2221-2238.

- Gehlin, S., G. Hellstrom, and B. Nordell. 2003. The Influence of the Thermosiphon Effect on the Thermal Response Test. *Renewable Energy* 28:2239-2254.
- Sutton, M.G., D.W. Nutter, and R.J. Couvillion. 2003. A ground resistance for vertical bore heat exchangers with groundwater flow. *Journal of Energy Resources Technology-Transactions of the ASME* 125(3):183-189.
- Yavuzturk, C., and A.C. Chiasson. 2002. Performance of U-Tube, Concentric Tube, and Standing Column Well Ground Heat Exchangers Using a System Simulation Approach. *ASHRAE Transactions* 108(1):1-14.
- McQuiston, F.C., J.D. Parker, and J.D. Spitler. 2000. *Heating, Ventilating, and Air Conditioning Analysis and Design*, Fifth Edition. New York: John Wiley and Sons Inc.
- Namburu, P.K., D.K. Das, K. M. Tanguturi, and R. S. Vajjha. 2009. Numerical study of turbulent flow and heat transfer characteristics of nanofluids considering variable properties. *International Journal of Thermal Sciences* 48(2):290-302.
- Kulkarni, D.P., D.K. Das, and R.S. Vajjha. 2009. Application of nanofluids in heating buildings and reducing pollution. *Applied Energy* 86(12): 2566-2573.
- Kundu, B., and P.K. Das. 2009. Performance and optimum dimensions of flat fins for tube-and-fin heat exchangers: A generalized analysis. *International Journal of Heat and Fluid Flow* 30(4):658-668.
- Praveen K. Namburu, Debendra K. Das, Krishna M. Tanguturi, Ravikanth S. Vajjha. 2009. Numerical study of turbulent flow and heat transfer characteristics of nanofluids considering variable properties. *International Journal of Thermal Sciences* 48(2):290-302.
- Palyvos, J.A. 2008. A survey of wind convection coefficient correlations for building envelope energy systems' modeling. *Applied Thermal Engineering* 28(8-9):801-808.
- Zhou, J., G. Zhang, Y. Lin, and Y. Li. 2008. Coupling of thermal mass and natural ventilation in buildings. *Energy and Buildings* 40(6):979-986
- Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504.
- Namburu, P.K., D.P. Kulkarni, D. Misra, and D.K. Das. 2007. Viscosity of copper oxide nanoparticles dispersed in ethylene glycol and water mixture. *Experimental Thermal and Fluid Science* 32(2):397-402.
- Tian, W., Y. Wang, Y. Xie, D. Wu, L. Zhu, and J. Ren. 2007. Effect of building integrated photovoltaics on microclimate of urban canopy layer. *Building and Environment* 42(5):1891-1901.
- Vatistas, G.H., D. Chen, T.F. Chen, and S. Lin. 2007. Prediction of infiltration rates through an automatic door. *Applied Thermal Engineering* 27(2-3):545-550.

- Zain, Z.M., M.N. Taib, and S.M.S. Baki. 2007. Hot and humid climate: prospect for thermal comfort in residential building. *Desalination* 209(1-3):261-268.
- Chan, K.T., and F.W. Yu. 2005. Analysis of the component characteristics of air-cooled chillers for modelling floating condensing temperature control. *Energy Conversion and Management* 46(6):927-939.
- Wongwises, S., and B. Anansauwapak. 2005. Prediction of evaporation of defrosted water in refrigerator water trays. *International Communications in Heat and Mass Transfer* 32(3-4):403-415.
- Yik, F.W.H., and K.S.Y. Wan. 2005. An evaluation of the appropriateness of using overall thermal transfer value (OTTV) to regulate envelope energy performance of air-conditioned buildings. *Energy* 30(1):41-71.
- Yigit, K.S.. 2005. Experimental investigation of a comfort heating system for a passenger vehicle with an air-cooled engine. *Applied Thermal Engineering* 25(17-18):2790-2799.
- Boulama, K., N. Galanis, and J. Orfi. 2004. Heat and mass transfer between gas and liquid streams in direct contact. *International Journal of Heat and Mass Transfer* 47(17-18):3669-3681.
- Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*. Chapter 5. Blackwell Publishing Ltd.
- Pedersen, C.O., R.J. Liesen, R.K. Strand, D.E. Fisher, L. Dong, and P.G. Ellis. 2000. *A Toolkit for Building Load Calculations*. Atlanta: ASHRAE.
- Wang, W., R. Zmeureanu, and H. Rivard. 2005. Applying multi-objective genetic algorithms in green building design optimization. *Building and Environment* 40(11):1512-1525.
- Wang, W., H. Rivard, and R. Zmeureanu. 2003. Optimizing Building Design with Respect to Life-Cycle Environmental Impacts. Eighth International IBPSA Conference, August 11-14. Eindhoven, Netherlands.
- Rees, S.J., J.D. Spitler, M.J. Holmes, and P. Haves. 2000. Comparison of North American and U.K. Cooling Load Calculation Procedures. *Building Services Engineering Research and Technology* 21(2):125-138.
- Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.
- Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*. Chapter 7. Oxford: Blackwell Publishing Ltd.
- Wright, J.A., H.A. Loosemore, and R. Farmani. 2002. Optimization of building thermal design and control by multi-criterion genetic algorithm. *Energy and Buildings* 34:959-972.



Rees, S.J., J.D. Spitler, M.G. Davies, and P. Haves. 2000. Qualitative Comparison of North American and U.K. Cooling Load Calculation Methods. *International Journal of HVAC&R Research* 6(1):75-99.

Hall, M., and D. Allinson. 2008. Assessing the moisture-content-dependent parameters of stabilized earth materials using the cyclic-response admittance method. *Energy and Buildings* 40(11):2044-2051.

Yumrutas, R., Ö. Kaska, and E. Yildirim. 2007. Estimation of total equivalent temperature difference values for multilayer walls and flat roofs by using periodic solution. *Building and Environment* 42(5):1878-1885.

Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.

Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*, Chapter 7. Oxford: Blackwell Publishing Ltd.

Goldstein, R.J., E.G. Eckert, W.E. Ibele, and S.V. Patankar. 2002. Heat Transfer – a Review of 2000 Literature. *International Journal of Heat and Mass Transfer* 45:2853-2957.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.

Spitler, J.D. 2000. GLHEPRO - A Design Tool for Commercial Building Ground Loop Heat Exchangers. *Proceedings of the Fourth International Heat Pumps in Cold Climates Conference, Aylmer, Québec, Canada*.

Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.

Benli, H., and A. Durmus. 2009. Evaluation of ground-source heat pump combined latent heat storage system performance in greenhouse heating. *Energy and Buildings* 41(2):220-228.

Bandos, T.V., Á. Montero, E. Fernández, J.L.G. Santander, J.M. Isidro, J. Pérez, P.J.F. de Córdoba, J.F. Urchueguía. 2009. Finite line-source model for borehole heat exchangers: effect of vertical temperature variations. *Geothermics* 38(2):263-270.

De Carli, M., M. Tonon, A. Zarrella, and R. Zecchin. 2009. A computational capacity resistance model (CaRM) for vertical ground-coupled heat exchangers. *Renewable Energy*, In Press.

- Dickinson, J., T. Jackson, M. Matthews, and A. Cripps. 2009. The economic and environmental optimisation of integrating ground source energy systems into buildings. *Energy* 34(12):2215-2222.
- Lee, C.K., and H.N. Lam. 2008. Computer simulation of borehole ground heat exchangers for geothermal heat pump systems. *Renewable Energy* 33(6):1286-1296.
- Lamarche, L., and B. Beauchamp. 2007. A new contribution to the finite line-source model for geothermal boreholes. *Energy and Buildings* 39(2):188-198.
- Nagano, K., T. Katsura, and S. Takeda. 2006. Development of a design and performance prediction tool for the ground source heat pump system. *Applied Thermal Engineering* 26(14-15):1578-1592.
- Inalli, M., and H. Esen. 2004. Experimental thermal performance evaluation of a horizontal ground-source heat pump system. *Applied Thermal Engineering* 24(14-15):2219-2232.
- ASHRAE. 2003. *2003 ASHRAE HVAC Applications Handbook*. Chapter 32, Geothermal Energy. Atlanta: ASHRAE.
- Spitler, J.D., C. Yavuzturk, and S.J. Rees. 2000. In Situ Measurement of Ground Thermal Properties. *Proceedings of Terrastock 2000, Stuttgart, Germany*, 1:165-170.
- Gustafsson, A.-M., and L. Westerlund. 2010. Multi-injection rate thermal response test in groundwater filled borehole heat exchanger. *Renewable Energy* 35(5):1061-1070.
- Gustafsson, A.M. 2009. Multi injection rate – Thermal response test. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.
- Busso, A., G. Cabral, M. Reuss, and M. Proell. 2009. Two applications for thermal response test data evaluation - TRNSYS type 300 and TRT Analysis tool. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.
- Mattsson, N., G. Steinmann, and L. Laloui. 2008. Advanced compact device for the in situ determination of geothermal characteristics of soils. *Energy and Buildings* 40(7):1344-1352.
- Trillat-Berdal, V., B. Souyri, and G. Fraisse. 2006. Experimental study of a ground-coupled heat pump combined with thermal solar collectors. *Energy and Buildings* 38(12):1477-1484.
- Ekwue, E.I., R.J. Stone, V.V. Maharaj, and et al. 2005. Thermal conductivity and diffusivity of four trinidadian soils as affected by peat content. *Transactions of the ASAE* 48(5):1803-1815.

Spitler, J.D., S.J. Rees, and C. Yavuzturk. 2000. Recent Developments in Ground Source Heat Pump System Design, Modeling and Applications. *Proceedings of the Dublin 2000 Conference, Dublin, Ireland.*

Benli, H., and A. Durmus. 2009. Evaluation of ground-source heat pump combined latent heat storage system performance in greenhouse heating. *Energy and Buildings* 41(2):220-228.

Yang, W., M. Shi, G. Liu, and Z. Chen. 2009. A two-region simulation model of vertical U-tube ground heat exchanger and its experimental verification. *Applied Energy* 86(10):2005-2012.

Sliwa, T., and A. Gonet. 2005. Theoretical model of borehole heat exchanger. *Journal of Energy Resources Technology, Transactions of the ASME* 127(2):142-148.

Inalli, M., and H. Esen. 2004. Experimental thermal performance evaluation of a horizontal ground-source heat pump system. *Applied Thermal Engineering* 24(14-15):2219-2232.

ASHRAE. 2003. *2003 ASHRAE HVAC Applications Handbook*. Chapter 32, Geothermal Energy. Atlanta: ASHRAE.

Strand, R.K., D.B. Crawley, L.K. Lawrie, F.C. Winkelmann, W.F. Buhl, Y.J. Huang, and D.E. Fisher. 2000. EnergyPlus: a new-generation energy analysis and load calculation engine for building design. *Proceedings of the ACSA Technology Conference on EnergyPlus, Cambridge, MA*, pp. 1-12.

Wei, J., J. Zhao, and Q. Chen. 2010. Energy performance of a dual airflow window under different climates. *Energy and Buildings* 42(1):111-122.

Yavuzturk, C., and J.D. Spitler. 2000. Comparative Study of Operating and Control Strategies for Hybrid Ground Source Heat Pump Systems Using a Short Time-step Simulation Model. *ASHRAE Transactions* 106(2):192-209.

Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.

Chiasson, A.D., and C. Yavuzturk. 2009. A Design Tool for Hybrid Geothermal Heat Pump Systems in Heating-Dominated Buildings. *ASHRAE Transactions* 115(2):60-73.

Li, S., W. Yang, and X. Zhang. 2009. Soil temperature distribution around a U-tube heat exchanger in a multi-function ground source heat pump system. *Applied Thermal Engineering* 29(17-18):3679-3686.

Man, Y., H. Yang, and J. Wang. 2009. Study on hybrid ground-coupled heat pump system for air-conditioning in hot-weather areas like Hong Kong. *Applied Energy*, In Press.

Al-Sarkhi, E.A., S. Nijmeh, and B. Akash. 2008. Performance evaluation of standing column well for potential application of ground source heat pump in Jordan. *Energy Conversion and Management* 49(4):863-872.

Yi, M., Y. Hongxing, and F. Zhaohong. 2008. Study on hybrid ground-coupled heat pump systems. *Energy and Buildings* 40(11):2028-2036.

Trillat-Berdal, V., B. Souyri, and G. Fraisse. 2006. Experimental study of a ground-coupled heat pump combined with thermal solar collectors. *Energy and Buildings* 38(12):1477-1484.

Gasparella, A., G.A. Longo, and R. Marra. 2005. Combination of ground source heat pumps with chemical dehumidification of air. *Applied Thermal Engineering* 25(2-3):295-308.

Chiasson, A.D. 1999. Advances in modeling of ground-source heat pump systems. MS Thesis, School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK.

Bakker, M., H.A. Zondag, M.J. Elswijk, K.J. Strootman, and M.J.M. Jong. 2005. Performance and costs of a roof-sized PV/thermal array combined with a ground coupled heat pump. *Solar Energy* 78(2):331-339.

Crawley D.B, L.K. Lawrie, C.O. Pedersen, R.J. Liesen, D.E. Fisher, R.K. Strand, et al. 1999. EnergyPlus, a new-generation building energy simulation program. *Proceedings of the Renewable and Advanced Energy Systems for the 21st Century, Lahaina, Maui, Hawaii*.

Al-Rabghi, O.M., and M.M. Akyurt. 2004. A survey of energy efficient strategies for effective air conditioning. *Energy Conversion and Management* 45(11-12):1643-1654.

Crawley D.B, L.K. Lawrie, C.O. Pedersen, R.J. Liesen, D.E. Fisher, R.K. Strand, et al. 1999. ENERGYPLUS, A new-generation building energy simulation program. *Proceedings of building simulation '99*, 1:81-88.

Papadopoulos, A.M., S. Oxizidis, and G. Papandritsas. 2008. Energy, economic and environmental performance of heating systems in Greek buildings. *Energy and Buildings* 40(3):224-230.

Papadopoulos, A.M., S. Oxizidis, and L. Papathanasiou. 2008. Developing a new library of materials and structural elements for the simulative evaluation of buildings' energy performance. *Building and Environment* 43(5):710-719.

Fisher, D. E., R. D. Taylor, F. Buhl, R.J. Liesen, and R.K. Strand. 1999. A Modular, Loop-Based Approach to HVAC Energy Simulation And Its Implementation in EnergyPlus. *Proceedings of Building Simulation '99, Kyoto, Japan*.

Congradac, V., and F. Kulic. 2009. HVAC system optimization with CO<sub>2</sub> concentration control using genetic algorithms. *Energy and Buildings* 41(5):571-577.

Crawley, D.B., F.C.Winkelmann, L.K. Lawrie, and C.O. Pedersen. 2001. EnergyPlus: New Capabilities in a Whole-building Energy Simulation Program. *Conference Proceedings of Building Simulation '01, Rio de Janeiro, Brazil*.

- Crawley, D.B., J.W. Hand, and L.K. Lawrie. 1999. Improving the Weather Information Available to Simulation Programs. *Conference Proceedings of Building Simulation '99, Kyoto, Japan*.
- Huang, J., F. Winkelman, F. Buhl, C. Pedersen, D. Fisher, R. Liesen, R. Taylor, R. Strand, D. Crawley, and L. Lawrie. 1999. Linking the COMIS Multi-Zone Airflow Model with the Energyplus Building Energy Simulation Program. *Building Simulation 99, September 13-15. Kyoto, Japan*.
- Ren, Z., and Z. Chen. 2010. Enhanced air flow modelling for AccuRate – A nationwide house energy rating tool in Australia. *Building and Environment* 45(5):1276-1286.
- Congradac, V., and F. Kulic. 2009. HVAC system optimization with CO<sub>2</sub> concentration control using genetic algorithms. *Energy and Buildings* 41(5):571-577.
- Deru, M.P., and P.J. Burns. 2003. Infiltration and Natural Ventilation Model for Whole Building Energy Simulation of Residential Buildings. *ASHRAE Transactions* 109(2): 801-814.
- Rees, S.J., and J.D. Spitler. 1999. Proposal for a Building Loads Calculation Diagnostic Test Procedure. *ASHRAE Transactions* 105(2):514-526.
- Bowman, G., M.J. Holmes, and G.J. Levermore. 2000. Comparison of Manual Load Calculation Using Simplified Weather Data with Simulation and Hourly Weather Data. *ASHRAE Transactions* 106(2):475-481.
- Spitler, J.D. 1999. GLHEPro 3.0 for Windows Users Guide. School of Mechanical & Aerospace Engineering, Oklahoma State University.
- Chiasson, A.D., and C. Yavuzturk. 2009. A Design Tool for Hybrid Geothermal Heat Pump Systems in Heating-Dominated Buildings. *ASHRAE Transactions* 115(2):60-73.
- Chiasson, A.D. 2006. A Simplified Design Method for PEX Plastic Downhole Heat Exchangers. *GRC Transactions* 30:191-195
- Spitler, J.D., and D.E. Fisher. 1999. Development of Periodic Response Factors for Use with the Radiant Time Series Method. *ASHRAE Transactions* 105(2):491-509.
- Xu, X. and S. Wang. 2008. A simple time domain calculation method for transient heat transfer models. *Energy and Buildings* 40(9):1682-1690.
- Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504.
- Chen, Y., and S. Wang. 2005. A new procedure for calculating periodic response factors based on frequency domain regression method. *International Journal of Thermal Sciences* 44(4):382-392.
- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.

- Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*. Chapter 6. Oxford: Blackwell Publishing Ltd.
- ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.
- Hittle, D.C. 1999. The Effect of Beam Solar Radiation Distribution on Peak Cooling Loads. *ASHRAE Transactions* 105(2):510-513.
- Spitler, J.D., S.J. Rees, and C. Yavuzturk. 1999. More Comments on In-situ Borehole Thermal Conductivity Testing. *The Source* 12(2):4-6.
- Esen, H., and M. Inalli. 2009. In-situ thermal response test for ground source heat pump system in Elazığ, Turkey. *Energy and Buildings* 41(4):395-401.
- Lim, K., S. Lee, and C. Lee. 2007. An experimental study on the thermal performance of ground heat exchanger. *Experimental Thermal and Fluid Science* 31(8):985-990.
- Signorelli, S., S. Bassetti, D. Pahud, and T. Kohl. 2006. Numerical evaluation of thermal response tests. *Geothermics* 36(2):141-166.
- ASHRAE. 2003. *2003 ASHRAE HVAC Applications Handbook*. Chapter 32, Geothermal Energy. Atlanta: ASHRAE.
- Kavanaugh, S.P. 2000. Field Tests for Ground Thermal Properties-Methods and Impact on Ground-Source Heat Pump Design. *ASHRAE Transactions* 106(1):851-855.
- Sanner, B., M. Reuss, E. Mands, and J. Muller. 2000. Thermal Response Test – Experiences in Germany. Terrastock 2000, August 28-September 1. Stuttgart, Germany.
- Sanner, B. 1999. High Temperature Underground Thermal Energy Storage – State-of-the-art and Prospects. Giessener Geologische Schriften. (A report of ECES Annex 12 of the International Energy Agency).
- Spitler, J.D., and D.E. Fisher. 1999. On the Relationship between the Radiant Time Series and Transfer Function Methods for Design Cooling Load Calculations. *International Journal of HVAC&R Research* 5(2):125-138.
- Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504.
- Hou, ZJ, ZW Lian, Y. Yao, and X. Yuan. 2006. Cooling load prediction based on the combination of rough set theory and support vector machine. *HVAC&R Research* 12(2):337-352.
- Chen, Y., and S. Wang. 2005. A new procedure for calculating periodic response factors based on frequency domain regression method. *International Journal of Thermal Sciences* 44(4):382-392.

- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.
- Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.
- Underwood, C., and F. Yik. 2004. *Modelling Methods for Energy in Buildings*. Chapter 6. Oxford: Blackwell Publishing Ltd.
- Kreider, J.F., P.S. Curtiss, A. Rabl. 2002. *Heating and Cooling of Buildings - Design for Efficiency*, Second Edition, New York: McGraw-Hill.
- ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.
- Curtiss, P. et al. 2001. *The Handbook of Heating, Ventilation and Air Conditioning*. Chapter 6, HVAC Design Calculations. CRC Press by LLC.
- Hittle, D.C. 1999. The Effect of Beam Solar Radiation Distribution on Peak Cooling Loads. *ASHRAE Transactions* 105(2):510-513.
- Spitler, J., C. Yavuzturk, and N. Jain. 1999. Refinement and validation of in-situ parameter estimation models (Short report). Oklahoma State University, Stillwater, OK.
- Gao J., X. Zhang, J. Liu, K. Li, and J. Yang. 2008. Numerical and experimental assessment of thermal performance of vertical energy piles: An application. *Applied Energy* 85(10):901-910.
- Strand, R., F. Winkelmann, F. Buhl, J. Huang, R. Liesen, C. Pedersen, D. Fisher, R. Taylor, D. Crawley, and L. Lawrie. 1999. Enhancing and Extending the Capabilities of the Building Heat Balance Simulation Technique for Use in Energyplus. *Proceedings of Building Simulation '99, Kyoto, Japan*, 2:653-657.
- Congradac, V., and F. Kulic. 2009. HVAC system optimization with CO<sub>2</sub> concentration control using genetic algorithms. *Energy and Buildings* 41(5):571-577.
- Wang, S., and Y. Chen. 2003. Transient Heat Flow Calculation for Multilayer Constructions Using a Frequency-Domain Regression Method. *Building and Environment* 38:45-61.
- Yavuzturk, C., and J.D. Spitler. 1999. A Short Time Step Response Factor Model for Vertical Ground Loop Heat Exchangers. *ASHRAE Transactions* 105(2):475-485.
- Marcotte, D., P. Pasquier, F. Sheriff, and M. Bernier. 2010. The importance of axial effects for borehole design of geothermal heat-pump systems. *Renewable Energy* 35(4):763-770.

Wang, H., C. Qi, H. Du, and J. Gu. 2010. Improved method and case study of thermal response test for borehole heat exchangers of ground source heat pump system. *Renewable Energy* 35(3):727-733.

Wang, H., C. Qi, H. Du, and J. Gu. 2009. Thermal performance of borehole heat exchanger under groundwater flow: A case study from Baoding. *Energy and Buildings* 41(12):1368-1373.

Cauret, O., and M. Bernier. 2009. Experimental validation of an underground compact collector model. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Chiasson, A.D., and C. Yavuzturk. 2009. A Design Tool for Hybrid Geothermal Heat Pump Systems in Heating-Dominated Buildings. *ASHRAE Transactions* 115(2):60-73.

Fossa, M., O. Cauret, and M. Bernier. 2009. Comparing the thermal performance of ground heat exchangers of various lengths. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

He, M., S.J. Rees, and L. Shao. 2009. Applications of a dynamic three-dimensional numerical model for borehole heat exchangers. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Ortan, A., V. Quenneville-Bélair, B.S. Tilley, and J. Townsend. 2009. On Taylor dispersion effects for transient solutions in geothermal heating systems. *International Journal of Heat and Mass Transfer* 52(21-22):5072-5080.

Sharqawy, M.H., E.M. Mokheimer, and H.M. Badr. 2009. Effective pipe-to-borehole thermal resistance for vertical ground heat exchangers. *Geothermics* 38(2):271-277.

Yang, W., M. Shi, G. Liu, and Z. Chen. 2009. A two-region simulation model of vertical U-tube ground heat exchanger and its experimental verification. *Applied Energy* 86(10):2005-2012.

Yavuzturk, C., A.D. Chiasson, and J.E. Nydahl. 2009. Simulation Model for Ground Loop Heat Exchangers. *ASHRAE Transactions* 115(2):45-59.

Marcotte, D., and P. Pasquier. 2008. Fast fluid and ground temperature computation for geothermal ground-loop heat exchanger systems. *Geothermics* 37(6):651-665.

Wang, H., C. Qi, E. Wang, and J. Zhao. 2009. A case study of underground thermal storage in a solar-ground coupled heat pump system for residential buildings. *Renewable Energy* 34(1):307-314.

Bandyopadhyay, G., M. Kulkarni, and M. Mann. 2008. A New Approach to Modeling Ground Heat Exchangers in the Initial Phase of Heat-Flux Build Up. *ASHRAE Transactions* 114(2):428-439.



- Wang, H., and C. Qi. 2008. Performance study of underground thermal storage in a solar-ground coupled heat pump system for residential buildings. *Energy and Buildings* 40(7):1278-1286.
- Lamarche, L., and B. Beauchamp. 2007. A new contribution to the finite line-source model for geothermal boreholes. *Energy and Buildings* 39(2):188-198.
- Lamarche, L., and B. Beauchamp. 2007. New solutions for the short-time analysis of geothermal vertical boreholes. *International Journal of Heat and Mass Transfer* 50(7-8):1408-1419.
- Yang, W.B., M.H. Shi, and H. Dong. 2006. Numerical simulation of the performance of a solar-earth source heat pump system. *Applied Thermal Engineering* 26(17-18):2367-2376.
- Beier, R.A., and M. Smith. 2003. Removing Variable Heat Rate Effects from Borehole Tests. *ASHRAE Transactions* 109(2):463-474.
- Beier, R.A., and M. Smith. 2003. Minimum Duration of In-Situ Tests on Vertical Boreholes. *ASHRAE Transactions* 109(2):475-486.
- Purdy, J., and A. Morrison. 2003. Ground-Source Heat-Pump Simulation within a Whole-Building Analysis. Eighth International IBPSA Conference, August 11-14. Eindhoven, Netherlands.
- Bernier, M.A. 2001. Ground-Coupled Heat Pump System Simulation. *ASHRAE Transactions* 107(1):605-616.
- Yavuzturk, C., J.D. Spitler, and S.J. Rees. 1999. A transient two-dimensional finite volume model for the simulation of vertical U-tube ground heat exchangers. *ASHRAE Transactions* 105(2):465-474.
- Kim, S.-K., G.-O. Bae, K.-K. Lee, and Y. Song. 2010. Field-scale evaluation of the design of borehole heat exchangers for the use of shallow geothermal energy. *Energy* 35(2):491-500.
- Wang, H., C. Qi, H. Du, and J. Gu. 2010. Improved method and case study of thermal response test for borehole heat exchangers of ground source heat pump system. *Renewable Energy* 35(3):727-733.
- Yang, H., P. Cui, and Z. Fang. 2010. Vertical-borehole ground-coupled heat pumps: A review of models and systems. *Applied Energy* 87(1):16-27.
- Zanchini, E., S. Lazzari, and A. Priarone. 2010. Effects of flow direction and thermal short-circuiting on the performance of small coaxial ground heat exchangers. *Renewable Energy* 35(6):1255-1265.
- Zanchini, E., S. Lazzari, and A. Priarone. 2010. Improving the thermal performance of coaxial borehole heat exchangers. *Energy* 35(2):657-666.

- Esen, H., M. Inalli, and Y. Esen. 2009. Temperature distributions in boreholes of a vertical ground-coupled heat pump system. *Renewable Energy* 34(12):2672-2679.
- Li, Z., and M. Zheng. 2009. Development of a numerical model for the simulation of vertical U-tube ground heat exchangers. *Applied Thermal Engineering* 29(5-6):920-924.
- Michopoulos, A., and N. Kyriakis. 2009. Predicting the fluid temperature at the exit of the vertical ground heat exchangers. *Applied Energy* 86(10):2065-2070.
- Wang, H., C. Qi, H. Du, and J. Gu. 2009. Thermal performance of borehole heat exchanger under groundwater flow: A case study from Baoding. *Energy and Buildings* 41(12):1368-1373.
- Yang, W., M. Shi, G. Liu, and Z. Chen. 2009. A two-region simulation model of vertical U-tube ground heat exchanger and its experimental verification. *Applied Energy* 86(10):2005-2012.
- Yavuzturk, C., A.D. Chiasson, and J.E. Nydahl. 2009. Simulation Model for Ground Loop Heat Exchangers. *ASHRAE Transactions* 115(2):45-59.
- Al-Sarkhi, E.A., S. Nijmeh, and B. Akash. 2008. Performance evaluation of standing column well for potential application of ground source heat pump in Jordan. *Energy Conversion and Management* 49(4):863-872.
- Bernier, M.A., A. Chahla, and P. Pinel. 2008. Long Term Ground Temperature Changes in Geo-Exchange Systems. *ASHRAE Transactions* 114(2):342-350.
- Cui, P., H. Yang, and Z. Fang. 2008. Numerical analysis and experimental validation of heat transfer in ground heat exchangers in alternative operation modes. *Energy and Buildings* 40(6):1060-1066.
- Nam, Y., R. Ooka, and S. Hwang. 2008. Development of a numerical model to predict heat exchange rates for a ground-source heat pump system. *Energy and Building* 40(12):2133-2140.
- Wang, H., and C. Qi. 2008. Performance study of underground thermal storage in a solar-ground coupled heat pump system for residential buildings. *Energy and Buildings* 40(7):1278-1286.
- Yu, Y., Z. Ma, and X. Li. 2008. A new integrated system with cooling storage in soil and ground-coupled heat pump. *Applied Thermal Engineering* 28(11-12):1450-1462.
- Esen, H., M. Inalli, and M. Esen. 2007. Numerical and experimental analysis of a horizontal ground-coupled heat pump system. *Building and Environment* 42(3):1126-1134.
- Gan, G., S.B. Riffat, and C.S.A. Chong. 2007. A novel rainwater-ground source heat pump-Measurement and simulation. *Applied Thermal Engineering* 27(2-3):430-441.

- Signorelli, S., S. Bassetti, D. Pahud, and T. Kohl. 2006. Numerical evaluation of thermal response tests. *Geothermics* 36(2):141-166.
- Yang, W.B., M.H. Shi, and H. Dong. 2006. Numerical simulation of the performance of a solar-earth source heat pump system. *Applied Thermal Engineering* 26(17-18):2367-2376.
- Gehlin, S.E.A. 2003. Comparison of Four Models for Thermal Response Test Evaluation. *AHSRAE Transactions* 109(1):131-142.
- Zheng, H., N. Diao, and Z. Fang. 2003. Heat Transfer Analysis of Boreholes in Vertical Ground Heat Exchangers. *International Journal of Heat and Mass Transfer* 46:4467-4481.
- Bernier, M.A., and D. Randriamiarinjatovo. 2001. Annual Simulations of Heat Pump Systems with Vertical Ground Heat Exchangers. *Proceedings eSim 2001 Conference, Ottawa, Ontario, Canada*.
- Bernier, M.A. 2001. Ground-Coupled Heat Pump System Simulation. *ASHRAE Transactions* 107(1):605-616.
- Philippacopoulos, A.J., and M.L. Berndt. 2001. Influence of de-bonding in ground heat exchangers used with geothermal heat pumps. *Geothermics* 30:527-545.
- Yavuzturk, C. 1999. Modeling of vertical ground loop heat exchangers for ground source heat pump systems. Ph.D. Thesis, School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK.
- Gustafsson, A.-M., L. Westerlund, and G. Hellström. 2009. CFD-modelling of natural convection in a groundwater-filled borehole heat exchanger. *Applied Thermal Engineering*, 30(6-7):683-691.
- Javed, S., P. Fahlén, and J. Claesson. 2009. Vertical ground heat exchangers: a review of heat flow models. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17*.
- Yavuzturk, C., A.D. Chiasson, and J.E. Nydahl. 2009. Simulation Model for Ground Loop Heat Exchangers. *ASHRAE Transactions* 115(2):45-59.
- Marcotte, D., and P. Pasquier. 2008. Fast fluid and ground temperature computation for geothermal ground-loop heat exchanger systems. *Geothermics* 37(6):651-665.
- Lamarche, L., B. Beauchamp. 2007. A new contribution to the finite line-source model for geothermal boreholes. *Energy and Buildings* 39(2):188-198.

Austin, W. 1998. Development of an In-Situ System for Measuring Ground Thermal Properties. MS Thesis, School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK.

Gustafsson, A.-M., and L. Westerlund. 2010. Multi-injection rate thermal response test in groundwater filled borehole heat exchanger. *Renewable Energy* 35(5):1061-1070.

Busso, A., G. Cabral, M. Reuss, and M. Proell. 2009. Two applications for thermal response test data evaluation - TRNSYS type 300 and TRT Analysis tool. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Eswaisi, A.A., M.A. Muntasser, and B. Nordell. 2009. First Thermal Response Test in Libya. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Georgiev, A., R. Popov, and S. Tabakova. 2009. First thermal response test in Bulgaria. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Gustafsson, A.M. 2009. Multi injection rate – Thermal response test. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Lee, C.K., and H.N. Lam. 2009. Determination of groundwater velocity in thermal response test analysis. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Martos, J., J. Torres, J. Soret, and A. Montero. 2009. New miniaturized wireless instrument to characterize thermal properties of borehole heat exchangers. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Reuss, M., M. Proell, and B Nordell. 2009. IEA ECES –ANNEX 21– thermal response test. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Sanner, B., E. Mands, M. Sauer, and E. Grundmann. 2009. Economic aspects of thermal response test – advantages, technical improvements, commercial application. *Proceedings of 11th International Conference on Thermal Energy Storage; Effstock 2009, Stockholm, Sweden, June 14-17.*

Gustafsson, A., and S. Gehlin. 2008. Influence of Natural Convection in Water-Filled Boreholes for GCHP. *ASHRAE Transactions* 114(1):416-423.

Bandos, T.V., Á. Montero, E. Fernández, J.L.G. Santander, J.M. Isidro, J. Pérez, P.J.F. de Córdoba, J.F. Urchueguía. 2009. Finite line-source model for borehole heat exchangers: effect of vertical temperature variations. *Geothermics* 38(2):263-270.

- Gehlin, S. G. Hellström. 2000. Recent Status of In-Situ Thermal Response Tests for BTES Applications in Sweden. Terrastock 2000, 28 August-1 September. Stuttgart, Germany.
- Kavanaugh, S.P. 2000. Field Tests for Ground Thermal Properties – Methods and Impact on Ground-Source Heat Pump Design. *ASHRAE Transactions* 106(1):851-855.
- Nordell, B., and G. Hellström. 2000. High Temperature Solar Heated Seasonal Storage System for Low Temperature Heating of Buildings. *Solar Energy* 69(6):511-523.
- Sanner, B., M. Reuss, E. Mands, and J. Muller. 2000. Thermal Response Test – Experiences in Germany. Terrastock 2000, 28 August -1 September. Stuttgart, Germany.
- Sanner, B. 1999. High Temperature Underground Thermal Energy Storage – State-of-the-art and Prospects. Nr.67, Giessener Geologische Schriften. (A report of ECES Annex 13 of the International Energy Agency).
- Crawley, D.B., Linda K. Lawrie, Curtis O. Pedersen, Richard J. Liesen, Daniel E. Fisher, Richard K. Strand, Russell D. Taylor, Frederick C. Winkelmann, W. F. Buhl, Y. Joe Huang, and A.E. Erdem. 1998. Beyond DOE-2 and BLAST: EnergyPlus, the New Generation Energy Simulation Program, Commercial Buildings: Technologies, Design, and Performance Analysis. *Proceedings of the 1998 Summer Study on Energy Efficiency in Buildings, Asilomar, Pacific Grove, California*, 3:89-104.
- Stamper, E. 2001. The Role of the National Institute of Standards and Technology in Development of Energy Calculation Programs. *ASHRAE Transactions* 107(2):684-687.
- Crawley, D.B., L.K. Lawrie, C.O. Pedersen, R.J. Liesen, D.E. Fisher, F.C. Winkelmann, and W.F. Buhl. 1998. EnergyPlus: The New Generation Energy Simulation Program beyond BLAST and DOE-2. ASES Passive Conference, June 1998. Albuquerque, New Mexico.
- Stamper, E. 2001. The Role of the National Institute of Standards and Technology in Development of Energy Calculation Programs. *ASHRAE Transactions* 107(2):684-687.
- Pedersen, C.O., D.E. Fisher, J.D. Spitler and R.J. Liesen.1998. *Cooling and heating load calculation principles*. Atlanta: ASHRAE.
- Urchueguía, J.F., M. Zacarés, J.M. Corberán, Á. Montero, J. Martos, and H. Witte. 2008. Comparison between the energy performance of a ground coupled water to water heat pump system and an air to water heat pump system for heating and cooling in typical conditions of the European Mediterranean coast. *Energy Conversion and Management* 49(10):2917-2923.
- Jo, J.H, Lim, J.H, S.Y. Song, M.S. Yeo, and K.W. Kim. 2007. Characteristics of pressure distribution and solution to the problems caused by stack effect in high-rise residential buildings. *Building and Environment* 42(1):263-277.

- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.
- ASHRAE. 2003. *2003 ASHRAE HVAC Applications Handbook*. Chapter 39, Computer Applications. Atlanta: ASHRAE.
- Ogoli, D.M.. 2003. Building (Thermal) Mass in Dynamic Diurnal Cycles: An Experiment in Kenya. *ASHRAE Transactions* 109(2):120-130.
- Kreider, J.F., P.S. Curtiss, and A. Rabl. 2002. *Heating and Cooling of Buildings-Design for Efficiency*, Second Edition, New York: McGraw-Hill.
- Al-Rabghi, O.M., and D.C. Hittle. 2001. Energy simulation in buildings: overview and BLAST example. *Energy Conversion and Management* 42:1623-1635.
- ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.
- Stamper, E. 2001. The Role of the National Institute of Standards and Technology in Development of Energy Calculation Programs. *ASHRAE Transactions* 107(2):684-687.
- Strand, R.K., C.O. Pedersen, and D.B. Crawley. 2001. Modularization and Simulation Techniques for Heat Balance Based Energy and Load Calculation Programs: the Experience of the ASHRAE. *Proceedings of Building Simulation '01, Rio de Janeiro, Brazil*.
- ASHRAE. 2000. *Handbook of HVAC Systems and Equipment*. Chapter 21, Air-Cooling and Dehumidifying Coils. Atlanta: ASHRAE.
- Rees, S.J. 1998. Modeling of Displacement Ventilation and Chilled Ceiling Systems Using Nodal Models. Ph.D. Thesis, Loughborough University, U.K.
- Griffith, B., and Q.Y. Chen. 2004. Framework for coupling room air models to heat balance model load and energy calculations (RP-1222). *HVAC&R Research* 10(2):91-111.
- Rees, S.J., J.D. Spitler, and P. Haves. 1998. Quantitative Comparison of North American and U.K. Cooling Load Calculation Procedures – Results. *ASHRAE Transactions* 104(2):47-61.
- Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504.
- Yik, F.W.H., and K.S.Y. Wan. 2005. An evaluation of the appropriateness of using overall thermal transfer value (OTTV) to regulate envelope energy performance of air-conditioned buildings. *Energy* 30(1):41-71.
- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.

- Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.
- ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.
- Bowman, G., M.J. Holmes, and G.J. Levermore. 2000. Comparison of Manual Load Calculation Using Simplified Weather Data with Simulation and Hourly Weather Data. *ASHRAE Transactions* 106(2):475-481.
- Hittle, D.C. 1999. The Effect of Beam Solar Radiation Distribution on Peak Cooling Loads. *ASHRAE Transactions* 105(2):510-513.
- Davies, M.G. 1999. Current Methods to Handle Wall Conduction and Room Internal Heat Transfer. *ASHRAE Transactions* 105(2):142-153.
- Spitler, J.D., and S.J. Rees. 1998. Quantitative Comparison of North American and U.K. Cooling Load Calculation Procedures – Methodology. *ASHRAE Transactions* 104(2):36-46.
- Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504.
- Yik, F.W.H, and K.S.Y Wan. 2005. An evaluation of the appropriateness of using overall thermal transfer value (OTTV) to regulate envelope energy performance of air-conditioned buildings. *Energy* 30(1):41-71.
- Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.
- Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.
- ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.
- Wright, J., and R. Farmani. 2001. The Simultaneous Optimization of Building Fabric Construction, HVAC System Size, and the Plant Control Strategy. *Conference Proceedings, Building Simulation '01, Rio de Janeiro, Brazil, 13-15 August 2001*.
- Bowman, G., M.J. Holmes, and G.J. Levermore. 2000. Comparison of Manual Load Calculation Using Simplified Weather Data with Simulation and Hourly Weather Data. *ASHRAE Transactions* 106(2):475-481.
- Davies, M.G. 1999. Current Methods to Handle Wall Conduction and Room Internal Heat Transfer. *ASHRAE Transactions* 105(2):142-153.
- Hittle, D.C. 1999. The Effect of Beam Solar Radiation Distribution on Peak Cooling Loads. *ASHRAE Transactions* 105(2):510-513.

Crawley, D.B., L.K. Lawrie, F.C. Winkelmann, W.F. Buhl, A.E. Erdem, C.O. Pedersen, R.J. Liesen, and D.E. Fisher. 1997. The Next-Generation in Building Energy Simulation - A Glimpse of the Future. *Proceedings of Building Simulation '97, Prague, Czech Republic, 7-10 September 1997*, 2:395-402.

Strand, R.K., and K.T. Baumgartner. 2005. Modeling radiant heating and cooling systems: integration with a whole-building simulation program. *Energy and Buildings* 37(4):389-397.

Clarke, J.A. 2001. *Energy Simulation in Building Design, Second Ed.* Oxford: Butterworth Heinemann.

Crawley, D.B., F.C. Winkelmann, L.K. Lawrie, C.O. Pedersen. 2001. EnergyPlus: New Capabilities in a Whole-building Energy Simulation Program. *Proceedings of Building Simulation '01, Rio de Janeiro, August 13-15.*

Björzell, N., A. Bring, L. Eriksson, P. Grozman, M. Lindgren, P. Sahlin, A. Shapovalov, B. Data, and M. Vuolle. 1999. IDA Indoor Climate and Energy. *Building Simulation '99, Kyoto, Japan, September 13-15.*

Crawley, D.B., L.K. Lawrie, F.C. Winkelmann, W.F. Buhl, A. E. Erdem, C.O. Pedersen, R.J. Liesen, and D.E. Fisher. 1997. What's Next for Building Energy Simulation-A Glimpse of the Future. *Proceedings of the 22nd National Passive Solar Conference, Solar 97, Washington, D. C., 25-30 April 1997*, pp. 309-314.

Sahlin, P., L. Eriksson, P. Grozman, H. Johnsson, A. Shapovalov, and M. Vuolle. 2003. Will Equation-Based Building Simulation Make It? – Experiences from the Introduction of Ida Indoor Climate and Energy. *Eighth International IBPSA Conference, Eindhoven, Netherlands, 11-14 August 2003.*

Fisher, D.E., and C.O. Pedersen. 1997. Convective Heat Transfer in Building Energy and Thermal Load Calculations. *ASHRAE Transactions* 103(2):137-148. (Winner of the ASHRAE “Best Technical Merit” Award).

Karadağ, R. 2009. The investigation of relation between radiative and convective heat transfer coefficients at the ceiling in a cooled ceiling room. *Energy Conversion and Management* 50(1):1-5.

Gao, J. 2008. Numerical Determination of Convection Coefficients for Internal Surfaces in Buildings Dominated by Thermally Stratified Flows. *Journal of Building Physics* 31(3):213-223.

Jeong, J.W., and S.A. Mumma. 2007. Practical cooling capacity estimation model for a suspended metal ceiling radiant cooling panel. *Building and Environment* 42(9):3176-3185.

Makaka, G. 2006. Temperature Stability of Traditional and Low-cost Modern Housing in the Eastern Cape, South Africa. *Journal of Building Physics* 30(1):71-86.



Novoselac, A., B.J. Burley, and J. Srebric. 2006. Development of new and validation of existing convection correlations for rooms with displacement ventilation systems. *Energy and Buildings* 38(3):163-173.

Novoselac, A., B.J. Burley, and J. Srebric. 2006. New convection correlations for cooled ceiling panels in room with mixed and stratified airflow. *HVAC&R Research* 12(2):279-294.

Davies, M., C. Martin, M. Watson, and C. Ni Riain. 2005. The development of an accurate tool to determine convective heat transfer coefficients in real buildings. *Energy and Buildings* 37(2):141-145.

Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.

Griffith, B., and Q.Y. Chen. 2004. Framework for coupling room air models to heat balance model load and energy calculations (RP-1222). *HVAC&R Research* 10(2):91-111.

Jeong, J., and S. Mumma. 2003. Impact of Mixed Convection on Ceiling Radiant Cooling Panel Capacity. *HVAC&R Research* 9(3):251-257.

Jeong, J.W., S. Mumma. 2003. Ceiling Radiant Cooling Panel Capacity Enhanced by Mixed Convection in Mechanically Ventilated Spaces. *Applied Thermal Engineering* 23:2293-2306.

Yinong, H., S. Takada, N. Nakahara, H. Miura, and S. Hokoi. 2003. Influence of Air Exchange Through Small Openings Between Rooms. *ASHRAE Transactions* 109(1):315-322.

ASHRAE. 2001. *2001 ASHRAE Handbook-Fundamentals*. Atlanta: ASHRAE.

Beausoleil-Morrison, I. 2001. An Algorithm for Calculating Convection Coefficients for Internal Building Surfaces for the Case of Mixed Flow in Rooms. *Energy and Buildings* 33:351-361.

Beausoleil-Morrison, I. 2001. Flow responsive modeling of internal surface convection. *Conference Proceedings of Building Simulation '01, Rio de Janeiro, Brazil, 13-15 August*.

Clarke, J.A. 2001. *Energy Simulation in Building Design, Second Ed*. Oxford: Butterworth Heinemann.

Wallenten, P. 2001. Convective heat transfer coefficients in a full-scale room with and without furniture. *Building and Environment* 36(2001):743-751.

- Eckert, E.G., R.J. Goldstein, W.E. Ibele, and S.V. Patankar. 2000. Heat Transfer – a Review of 1997 Literature. *International Journal of Heat and Mass Transfer* 43:2431-2528.
- Beausoleil-Morrison, I. 1999. Modeling Mixed Convection Heat Transfer at Internal Building Surfaces. *Proceedings of Building Simulation '99, Kyoto, Japan, 13-15 September 1999*.
- Beausoleil-Morrison, I., and P. Strachan. 1999. On the Significance of Modeling Internal Surface Convection in Dynamic Whole-Building Simulation Programs. *ASHRAE Transactions* 105(2):929-940.
- Wallenten, P. 1999. Heat Transfer Coefficients in a Full Scale Room with and without Furniture. *Proceedings of Building Simulation '99, Kyoto, Japan, 13-15 September 1999*.
- Manickam, A., M. Dharapuram, R.D. Delahoussaye, and J.D. Spitler. 1997. *GLHEPRO for Windows, the Professional Ground Loop Heat Exchanger Design Software, Version 2.02*. International Ground Source Heat Pump Association, Stillwater, OK, USA.
- Nordell, B., and G. Hellström. 2000. High Temperature Solar Heated Seasonal Storage System for Low Temperature Heating of Buildings. *Solar Energy* 69(6):511-523.
- Pedersen, C.O., D.E. Fisher, and R.J. Liesen. 1997. Development of a Heat Balance Procedure for Calculating Cooling Loads. *ASHRAE Transactions* 103(2):459-468.
- Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.
- Griffith, B., and Q.Y. Chen. 2004. Framework for coupling room air models to heat balance model load and energy calculations (RP-1222). *HVAC&R Research* 10(2):91-111.
- ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.
- Noel, J., J.J. Roux, and P.S. Schneider. 2001. Codyba, a Design Tool for Buildings Performance Simulation. *Conference Proceedings. Building Simulation '01, Rio de Janeiro, Brazil, 13-15 August 2001*.
- Strand, R.K., C.O. Pedersen, and D.B. Crawley. 2001. Modularization and Simulation Techniques for Heat Balance Based Energy and Load Calculation Programs: the Experience of the ASHRAE. *Conference Proceedings. Building Simulation '01, Rio de Janeiro, Brazil, 13-15 August 2001*.
- Davies, M.G. 1999. Current Methods to Handle Wall Conduction and Room Internal Heat Transfer. *ASHRAE Transactions* 105(2):142-153.

Pedersen, C.O., D.E. Fisher, R. J. Liesen, R.K. Strand, R.D. Taylor, W.F. Buhl, F.C. Winkelmann, L.K. Lawrie, and D.B. Crawley. 1997. EnergyBase: The Merger of BLAST and DOE-2. *Proceedings of Building Simulation '97, Prague, Czech Republic, 7-10 September 1997*, Vol. III, pp. 1-8.

Al-Rabghi, O.M., and M.M. Akyurt. 2004. A survey of energy efficient strategies for effective air conditioning. *Energy Conversion and Management* 45(11-12):1643-1654.

Al-Rabghi, O.M., and D.C. Hittle. 2000. Energy Simulation in Buildings: Overview and BLAST Example. *Energy Conversion and Management* 42:1623-1635.

Spitler, J.D., D.E. Fisher, and C.O. Pedersen. 1997. The Radiant Time Series Cooling Load Calculation Procedure. *ASHRAE Transactions* 103(2):503-515.

Causone, F., S.P. Corgnati, and M. Filippi, and B.W. Olesen. 2010. Solar radiation and cooling load calculation for radiant systems: Definition and evaluation of the Direct Solar Load. *Energy and Buildings* 42(3):305-314.

Mehmei Aktacir, O. Büyükalaca, and T. Yılmaz. 2010. A case study for influence of building thermal insulation on cooling load and air-conditioning system in the hot and humid regions. *Applied Energy* 87(2):599-607.

Li, D.H.W., T.N.T. Lam, and K.L. Cheung. 2009. Energy and cost studies of semi-transparent photovoltaic skylight. *Energy Conversion and Management* 50(8):1981-1990.

Li, D., T. Lam, W.Chan, and A. Mak. 2009. Energy and cost analysis of semi-transparent photovoltaic in office buildings. *Applied Energy* 86(5):722-729.

Aktacir, M.A., O.B.H. Bulut, and T. Yılmaz. 2008. Influence of different outdoor design conditions on design cooling load and design capacities of air conditioning equipments. *Energy Conversion and Management* 49(6):1766-1773.

Tian, W., Y. Wang, Y. Xie, D. Wu, L. Zhu, and J. Ren. 2007. Effect of building integrated photovoltaics on microclimate of urban canopy layer. *Building and Environment* 42(5):1891-1901.

Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504

Wang, Y., W. Tian, J. Ren, L. Zhu, and Q. Wang. 2006. Influence of a building's integrated photovoltaics on heating and cooling loads. *Applied Energy* 83(9):989-1003.

Aktacir, M.A., O. Büyükalaca, and T. Yılmaz. 2006. Life-cycle cost analysis for constant-air-volume and variable-air-volume air-conditioning systems. *Applied Energy* 83(6):606-627.

Wang, Y.P., W. Tian, L. Zhu, et al. 2006. Interactions between building integrated photovoltaics and Microclimate in urban environments. *Journal of Solar Energy Engineering, Transactions of the ASME* 128 (2):168-172.

Chen, Y., and S. Wang. 2005. A new procedure for calculating periodic response factors based on frequency domain regression method. *International Journal of Thermal Sciences* 44(4):382-392.

Yik, F.W.H., and K.S.Y Wan. 2005. An evaluation of the appropriateness of using overall thermal transfer value (OTTV) to regulate envelope energy performance of air-conditioned buildings. *Energy* 30(1):41-71.

Bruning, S.F. 2004. A new way to calculate cooling loads. *ASHRAE Journal* 46(1):20-24.

Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*. Chapter 6, Modeling in Practice I. Oxford: Blackwell Publishing Ltd.

Kreider, J.F., P.S. Curtiss, and A. Rabl. 2002. *Heating and Cooling of Buildings - Design for Efficiency*, Second Ed. New York: McGraw-Hill.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.

Hittle, D.C. 1999. The Effect of Beam Solar Radiation Distribution on Peak Cooling Loads. *ASHRAE Transactions* 105(2):510-513.

Davies, M.G. 1999. Current Methods to Handle Wall Conduction and Room Internal Heat Transfer. *ASHRAE Transactions* 105(2):142-153.

Spitler, J.D. 1996. *Annotated Guide to Load Calculation Models and Algorithms*. Atlanta: ASHRAE.

Kreider, J.F., P.S. Curtiss, and A. Rabl. 2002. *Heating and Cooling of Buildings - Design for Efficiency*, Second Edition. New York: McGraw-Hill.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 31, Energy Estimating and Modeling Methods. Atlanta: ASHRAE.

De Wit, M.S. 2001. Uncertainty in Predictions of Thermal Comfort in Buildings. Ph.D. Thesis, Delft University of Technology, Delft, Netherlands.

Al-Rabghi, O.M., and D.C. Hittle. 2000. Energy Simulation in Buildings: Overview and BLAST Example. *Energy Conversion and Management* 42:1623-1635.

Spitler, J. D., A. H. Fleming, D. M. Mickelson. 1996. User's Guide of GLHEPRO. School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK.

Sutton, M.G., D.W. Nutter, and R.J. Couvillion. 2003. A ground resistance for vertical bore heat exchangers with groundwater flow. *Journal of Energy Resources Technology, Transactions of the ASME* 125(3):183-189.

Fisher, D.E. 1995. An Experimental Investigation of Mixed Convection Heat Transfer in a Rectangular Enclosure. Ph.D. Thesis, University of Illinois, Urbana, U.S.A.

Zhang, J., and F. Haghghat. 2009. Convective heat transfer prediction in large rectangular cross-sectional area Earth-to-Air Heat Exchangers. *Building and Environment* 44(9):1892-1898.

Gao, J. 2008. Numerical Determination of Convection Coefficients for Internal Surfaces in Buildings Dominated by Thermally Stratified Flows. *Journal of Building Physics* 31(3):213-223.

Hittle, D.C., and P. Simmonds. 2008. Modeling the Heat Gain of a Window with an Interior Shade - How Much Energy Really Gets in? *ASHRAE Transactions* 114(2):522-532.

Novoselac, A., B.J. Burley, and J. Srebric. 2006. Development of new and validation of existing convection correlations for rooms with displacement ventilation systems. *Energy and Buildings* 38(3):163-173.

Jeong, J.W., and S. Mumma. 2003. Ceiling Radiant Cooling Panel Capacity Enhanced by Mixed Convection in Mechanically Ventilated Spaces. *Applied Thermal Engineering* 23:2293-2306.

Beausoleil-Morrison, I. 2001. Flow responsive modeling of internal surface convection. *Conference Proceedings Building Simulation '01, Rio de Janeiro, Brazil, 13-15 August*

Clarke, J.A. 2001. *Energy Simulation in Building Design*, Second Edition. Oxford: Butterworth Heinemann.

Beausoleil-Morrison, I. 1999. Modeling Mixed Convection Heat Transfer at Internal Building Surfaces. *Proceedings of Building Simulation '99, Kyoto, Japan*.

Spitler, J.D., and J.D. Ferguson. 1995. Overview of the ASHRAE Annotated Guide to Load Calculation Models and Algorithms. *ASHRAE Transactions* 101(2):260-264.

Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.

Sowell, E.F., and D.C. Hittle. 1995. Evolution of Building Energy Simulation Methodology. *ASHRAE Transactions* 101(1):850-855.

Spitler, J.D., and T.D. Hogue. 1995. Prevention of bridge deck icing using geothermal heat. School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK.

Wang, H., and Z. Chen. 2009. Study of critical free-area ratio during the snow-melting process on pavement using low-temperature heating fluids. *Energy Conversion and Management* 50(1):157-165.

Wang, H., J. Zhao, and Z. Chen. 2008. Experimental investigation of ice and snow melting process on pavement utilizing geothermal tail water. *Energy Conversion and Management* 49(6):1538-1546.

Spitler, J.D., F.C. McQuiston, and K. Lindsey. 1993. Development of a Revised Cooling and Heating Load Calculation Manual. *ASHRAE Transactions* 99(1):175-182.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 28, Nonresidential Cooling and Heating Load Calculations. Atlanta: ASHRAE.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.

Clements, J.A., and S.A. Sherif. 1998. Thermal Analysis of Roof-Spray Cooling. *International Journal of Energy Research* 22:1337-1350.

Malkawi, A.M., and J. Warnbaugh. 1997. A New System for Accessing Transfer Function Coefficients for an Architectural Computer-Aided Thermal Optimization Tool. *Conference Proceedings, Building Simulations '97, Prague, Czech Republic*.

Spitler, J.D., F.C. McQuiston, and K. Lindsey. 1993. The CLTD/SCL/CLF Cooling Load Calculation Method. *ASHRAE Transactions* 99(1):183-192.

Kaşka, Ö., and R. Yumrutaş. 2009. Experimental investigation for total equivalent temperature difference (TETD) values of building walls and flat roofs. *Energy Conversion and Management* 50(11):2818-2825.

Kaşka, Ö., and R. Yumrutaş. 2008. Comparison of experimental and theoretical results for the transient heat flow through multilayer walls and flat roofs. *Energy* 33(12):1816-1823.

Yumrutaş, R., M. Ünsal, and M. Kanoğlu. 2005. Periodic solution of transient heat flow through multilayer walls and flat roofs by complex finite Fourier transform technique. *Building and Environment* 40:1117-1125.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.

McQuiston, F.C. and J.D. Parker. 1994. *Heating, Ventilating, and Air Conditioning: Analysis and Design*, 4<sup>th</sup> Edition. Chapter 8. New York: John Wiley & Sons, Inc.

Weathers, J.W., and J.D. Spitler. 1993. A Comparative Study of Room Air Flow: Numerical Prediction using Computational Fluid Dynamics and Full-Scale Experimental Measurements. *ASHRAE Transactions* 99(2):144-157.

Jiang, J., X. Wang, Y. Sun, and Y. Zhang. 2009. Experimental and Numerical Study of Airflows in a Full-Scale Room. *ASHRAE Transactions* 115(2):867-886.

Kuznik, F., G. Rusaouën, and J. Brau. 2007. Experimental and numerical study of a full scale ventilated enclosure: Comparison of four two equations closure turbulence models. *Building and Environment* 42(3):1043-1053.

Ye, X., and Z. Lian. 2005. Air distribution numerical simulating of isothermal jet with interference parameters in large space. *Simulation Modeling Practice and Theory* 13(2):139-155.

Irwin, D.R., C.J. Simonson, K.Y. Saw, and R.W. Besant. 1998. Contaminant and Heat Removal Effectiveness and Air-to-Air Heat/Energy Recovery for Contaminated Air Space. *ASHRAE Transactions* 104(2):433-447.

Yamamoto, T., D. Ensor, and L. Sparks. 1994. Evaluation of Ventilation Performance for Indoor Space. *Building and Environment* 29(3):291-296.

McQuiston, F.C., and J.D. Spitler. 1992. *Cooling and Heating Load Calculations Manual*. Atlanta: ASHRAE.

Fauchoux, M., C. Simonson, and D. Torvi. 2009. Comfort, Energy Consumption, and Economics of a School with Energy Recovery. *ASHRAE Transactions* 115(2):619-630.

Han, J., L. Lu, and H. Yang. 2009. Investigation on the thermal performance of different lightweight roofing structures and its effect on space cooling load. *Applied Thermal Engineering* 29(11-12):2491-2499.

Mui, K.W., and L.T. Wong. 2007. Cooling load calculations in subtropical climate. *Building and Environment* 42(7):2498-2504

Aktacir, M.A., O. Büyükalaca, and T. Yılmaz. 2006. Life-cycle cost analysis for constant-air-volume and variable-air-volume air-conditioning systems. *Applied Energy* 83(6):606-627.

Chen, Y., and S. Wang. 2005. A new procedure for calculating periodic response factors based on frequency domain regression method. *International Journal of Thermal Sciences* 44(4):382-392.

Underwood, C., and F. Yik. 2004. *Modeling Methods for Energy in Buildings*, Chapter 2. Blackwell Publishing Ltd.

ASHRAE. 2003. *2003 ASHRAE HVAC Handbook of Application*. Chapter 34, Thermal Storage. Atlanta: ASHRAE.

ASHRAE. 2003. *2003 ASHRAE HVAC Handbook of Application*. Chapter 39, Computer Applications. Atlanta: ASHRAE.

Gugliermetti, F., and F. Bisegna. 2003. Meteorological days for HVAC system design in Mediterranean climate. *Building and Environment* 38:1063-1074.

Li, D., S.L. Wong, and J.C. Lam. 2003. Climatic Effects on Cooling Load Determination in Subtropical Regions. *Energy Conversion & Management* 44:1831-1843.

Ogoli, D.M. 2003. Building (Thermal) Mass in Dynamic Diurnal Cycles: An Experiment in Kenya. *ASHRAE Transactions* 109(2):120-130.

ASHRAE. 2002. *2002 ASHRAE Handbook of Refrigeration*. Chapter 12, Refrigeration Load. Atlanta: ASHRAE.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 28, Nonresidential Cooling and Heating Load Calculations. Atlanta: ASHRAE.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 29, Nonresidential Cooling and Heating Load Calculation Procedures. Atlanta: ASHRAE.

ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 31, Energy Estimating and Modeling Methods. Atlanta: ASHRAE.

Chirarattananon, S., and A. Rajapakse. 2001. Determination of the Divergence of Calculation Methods for Heat Gain through Walls. *ASHRAE Transactions* 107(2):223-239.

Curtis, P. et al 2001. *The Handbook of Heating, Ventilation and Air Conditioning*. Chapter 6, HVAC Design Calculations. CRC Press by LLC.

Gugliermettie, F., L. Santarpia, and F. Bisegna. 2001. Integrated Energy Use Analysis in Office Space. *Conference Proceedings Building Simulation '01, Rio de Janeiro, Brazil*.

ASHRAE. 2000. *2000 Handbook of HVAC Systems and Equipment*. Chapter 28, Furnaces. Atlanta: ASHRAE.

Hong, T., S. Chou, and T. Bong. 1999. A Design Day for Building Load and Energy Estimation. *Building and Environment* 32:469-477.

Malkawi, A.M. 1999. Platform Independent Simulations: Thermal Simulation As An Object. *Conference Proceedings Building Simulation '99, Kyoto, Japan*.

Vakalo, E.G., A.M. Malkawi, and S.S. Emdanat. 1999. An AI-based shell for linking thermal and form-making considerations. *Automation in Construction* 8:455-462.

Clements, J.A., and S.A. Sherif. 1998. Thermal Analysis of Roof-Spray Cooling. *International Journal of Energy Research*. 22:1337-1350.



- Al-Rabghi, O.M.A., and K.M. Al-Johani. 1997. Utilizing transfer function method for hourly cooling load calculations. *Energy Conversion and Management* 38:319-332.
- ASHRAE. 1997. *1997 ASHRAE Handbook of Fundamentals*. Chapter 27, Nonresidential Cooling and Heating Load Calculations. Atlanta: ASHRAE.
- Malkawi, A.M., and J. Warnbaugh. 1997. A New System for Accessing Transfer Function Coefficients for an Architectural Computer-Aided Thermal Optimization Tool. *Conference Proceedings, Building Simulations '97, Prague, Czech Republic*.
- Rock, B.A. 1997. Impact of daylight saving time on residential energy consumption and cost. *Energy and Buildings* 25:63-68.
- Sandru, E. 1996. Evaluation of the Laboratory Equipment Component of Cooling Loads. *ASHRAE Transactions* 102(1):732-737.
- Caneta Research. 1995. *Commercial/Institutional Ground-Source Heat Pump Engineering Manual*. Chapter 3, Building Load Estimating. Atlanta: ASHRAE.
- Lam, J., and S. Hui. 1995. Outdoor Design Conditions for HVAC System Design and Energy Estimation for Buildings in Hong Kong. *Energy and Buildings* 22:25-43.
- Price, B., and T. Smith. 1995. Thermal Response of Composite Building Envelopes Accounting for Thermal Radiation. *Energy Conservation Management* 36(1):23-33.
- ASHRAE 581-RP Project Team. 1993. *Air-Conditioning Systems Design Manual*. Introduction. Atlanta: ASHRAE.
- ASHRAE 581-RP Project Team. 1993. *Air-Conditioning Systems Design Manual*. The Design Process. Atlanta: ASHRAE.
- Spitler, J., C. Pedersen, D. Fisher, P. Menne, and J. Cantillo. 1991. An Experimental Facility for Investigation of Interior Convective Heat Transfer. *ASHRAE Transactions* 97(1):497-504.
- Novoselac, A., B.J. Burley, and J. Srebric. 2006. Development of new and validation of existing convection correlations for rooms with displacement ventilation systems. *Energy and Buildings* 38(3):163-173.
- Novoselac, A., B.J. Burley, and J. Srebric. 2006. New convection correlations for cooled ceiling panels in room with mixed and stratified airflow. *HVAC&R Research* 12(2):279-294.
- Griffith, B., and Q.Y. Chen. 2004. Framework for coupling room air models to heat balance model load and energy calculations (RP-1222). *HVAC&R Research* 10(2):91-111.
- Zhang, L., J. Sun, Y. Chen, and G. Tang. 2002. Research on System Identification of Wall Heat Transfer Processes. *Experimental Heat Transfer* 15:31-47.

- Baker, A.J., R.M. Kelso, E.B. Gordon, S. Roy, and E.G. Schaub. 1997. Computational Fluid Dynamics: A Two-Edged Sword. *ASHRAE Journal* 39(8):51-58.
- Jayamaha, S.E.G, N.E. Wijesundera, and S.K. Chou. 1995. Measurement of the Heat Transfer Coefficient for Walls. *Building and Environment* 31:399-407.
- Williams, P.T., A.J. Baker, and R.M. Kelso. 1994. Numerical Calculation of Room Motion - Part 3: Three-Dimensional CFD Simulation of a Full-Scale Room Air Experiment. *ASHRAE Transactions* 100(1):549-564.
- Buhl, F., E. Erdem, J.M. Nataf, F.C. Winkelmann, M.A. Moshier, and E.F. Sowell. 1991. The U.S. EKS: Advances in the SPANK-based Energy Kernel System. *Proceedings of the System Simulation in Buildings '91, December 3-5*, pp. 107-150.
- Spitler, J., C. Pedersen, and D. Fisher. 1991. Interior Convective Heat Transfer in Buildings with Large Ventilative Flow Rates. *ASHRAE Transactions* 97(1):505-515.
- Artmann, N., R.L. Jensen, H. Manz, and P. Heiselberg. 2010. Experimental investigation of heat transfer during night-time ventilation. *Energy and Buildings* 42(3):366-374.
- Novoselac, A., B.J. Burley, and J. Srebric. 2006. Development of new and validation of existing convection correlations for rooms with displacement ventilation systems. *Energy and Buildings* 38(3):163-173.
- Davies, M. 2004. *Building Heat Transfer*. New York: John Wiley & Sons, Inc.
- Griffith, B., and Q.Y. Chen. 2004. Framework for coupling room air models to heat balance model load and energy calculations (RP-1222). *HVAC&R Research* 10(2):91-111.
- Djunaedy, E., J.L.M. Hensen, and M.G.L.C. Loomans. 2003. Toward External Coupling of Building Energy and Airflow Modeling Programs. *ASHRAE Transactions* 109(2):771-787.
- Jeong, J.W., and S. Mumma. 2003. Ceiling Radiant Cooling Panel Capacity Enhanced by Mixed Convection in Mechanically Ventilated Spaces. *Applied Thermal Engineering* 23:2293-2306.
- Beausoleil-Morrison, I. 2002. The adaptive simulation of convective heat transfer at internal building surfaces. *Building and Environment* 37:791-806.
- Kreider, J.F., P.S. Curtiss, and A. Rabl. 2002. *Heating and Cooling of Buildings - Design for Efficiency*, Second Ed. New York: McGraw-Hill.
- ASHRAE. 2001. *2001 ASHRAE Handbook of Fundamentals*. Chapter 31, Energy Estimating and Modeling Methods. Atlanta: ASHRAE.

Beausoleil-Morrison, I. 2001. An Algorithm for Calculating Convection Coefficients for Internal Building Surfaces for the Case of Mixed Flow in Rooms. *Energy and Buildings* 33:351-361.

Beausoleil-Morrison, I. 2001. Flow Responsive Modeling of Internal Surface Convection. *Conference Proceedings Building Simulation '01, Rio de Janeiro, Brazil*.

Beausoleil-Morrison, I. 1999. Modeling Mixed Convection Heat Transfer at Internal Building Surfaces. *Proceedings of Building Simulation '99, Kyoto*.

Beausoleil-Morrison, I., and P. Strachan. 1999. On the Significance of Modeling Internal Surface Convection in Dynamic Whole-Building Simulation Programs. *ASHRAE Transactions* 105(2):929-940.

ASHRAE. 1997. *1997 ASHRAE Handbook of Fundamentals* Chapter 30, Energy Estimating and Modeling Methods. Atlanta: ASHRAE.

Baker, A.J., R.M. Kelso, E.B. Gordon, S. Roy, and E.G. Schaub. 1997. Computational Fluid Dynamics: A Two-Edged Sword. *ASHRAE Journal* 39(8):51-58.

Kirkpatrick, A.T., and K.D. Knappmiller. 1996. The ADPI of Cold Air Jets in an Enclosure. *ASHRAE Transactions* 102(1):3-9.

Kalema, T., and T. Haapala. 1995. Effect of Interior Heat Transfer Coefficients on Thermal Dynamics and Energy Consumption. *Energy and Buildings* 22:101-113.

Morris, F.B., J.E. Braun, and S.J. Treado. 1994. Experimental and Simulated Performance of Optimal Control of Building Thermal Storage. *ASHRAE Transaction* 100(1):402-414.

Sowell, E.F., and K. Johnson. 1993. Improved Fluorescent Lighting Models for Building Energy Programs. *Proceedings of Building Simulation '93, Adelaide, Australia, 16-18 August*.

Jin, Y., and J.R. Ogilvie. 1992. Airflow Characteristics in the Floor Region of a Slot Ventilated Room (Isothermal). *Transactions of the ASAE* 35:695-702.

Jin, Y., and J.R. Ogilvie. 1992. Isothermal Airflow Characteristics in a Ventilated Room with a Slot Inlet Opening. *ASHRAE Transactions* 98(2):296-306.

Axley, J. 1991. Reversible Sorption Modeling for Multi-Zone Contaminant Dispersal Analysis. *Proceedings of Building Simulation '91, Sophia-Antipolis, Nice, France, 20-22 August 1991*.

Buhl, F., E. Erdem, J.M. Nataf, F.C. Winkelmann, M.A. Moshier, and E.F. Sowell. 1991. The U.S. EKS: Advances in the SPANK-based Energy Kernel System. *Proceedings of the System Simulation in Buildings '91, 3-5 December, pp. 107-150*.

Taylor, R.D., C.O. Pedersen, D.E. Fisher, R. J. Liesen, and L.L. Lawrie. 1991. Impact of Simultaneous Simulation of Buildings and Mechanical Systems in Heat Balance Based Energy Analysis Programs on System Response and Control, *Conference Proceedings IBPSA Building Simulation '91, Nice, France, 20-22 August*.

Mehmei Aktacir, O. Büyükalaca, and T. Yılmaz. 2010. A case study for influence of building thermal insulation on cooling load and air-conditioning system in the hot and humid regions. *Applied Energy* 87(2):599-607.

Wang, J., S.Wang, X. Xu, and Y.Chen. 2009. Short time step heat flow calculation of building constructions based on frequency-domain regression method. *International Journal of Thermal Sciences* 48(12):2355-2364.

Strand, R.K., and K.T. Baumgartner. 2005. Modeling radiant heating and cooling systems:integration with a whole-building simulation program. *Energy and Buildings* 37(4):389-397.

Strand, R.K., C.O. Pedersen, and D.B. Crawley. 2001. Modularization and Simulation Techniques for Heat Balance Based Energy and Load Calculation Programs: the Experience of the ASHRAE. *Conference Proceedings, Building Simulation '01, Rio de Janeiro, Brazil, 13-15 August*.

Strand, R.K., and C.O. Pedersen. 1997. Implementation of a Radiant Heating and Cooling Model into an Integrated Building Energy Analysis Program. *ASHRAE Transactions* 103(1):949-958.

Spitler, J.D. 1990. An Experimental Investigation of Air Flow and Convective Heat Transfer on Enclosures Having Large Ventilative Flow Rates. Ph.D. Thesis, University of Illinois, Urbana-Champaign, IL.

Zhang, J., and F. Haghghat. 2009. Convective heat transfer prediction in large rectangular cross-sectional area Earth-to-Air Heat Exchangers. *Building and Environment* 44(9):1892-1898.

Chow, W.K., and L.T. Wong. 1997. Design of Air Diffusion Terminal Devices in Passenger Train Vehicle. *Journal of Environmental Engineering* 123:1203-1207.

Baker, A.J., E.G. Schaub, and R.M. Kelso. 1995. Comparing the Continuity-Constraint Algorithm Results with a Full-Scale Laboratory Test. *ASHRAE Transactions* 101(1):1041-1053.

Baker, A.J., E.G. Schaub, and R.M. Kelso. 1994. CFD Experiment Characterization of Airborne Contaminant Transport for Two Practical 3-D Room Air Flow Fields. *Building and Environment* 29(3):253-259.

Baker, A.J., E.G. Schaub, and R.M. Kelso. 1994. Development of a Robust Finite Element CFD Procedure for Predicting Indoor Room Air Motion. *Building and Environment* 29(3):261-273.

- Chow, W., and L. Wong. 1994. Experimental Studies on Air Diffusion of a Linear Diffuser and Associated Thermal Comfort Indices in an Air-Conditioned Space. *Building and Environment* 29(4):523-530.
- Williams, P.T., A.J. Baker, and R.M. Kelso. 1994. Numerical Calculation of Room Motion – Part 3: Three-Dimensional CFD Simulation of a Full-Scale Room Air Experiment. *ASHRAE Transactions* 100(1):549-564.
- David, G.P. 1991. Sensitivity Analysis and Empirical Validation of HLITE Using Data from the NIST Indoor Test Cell. *Proceedings of Building Simulation '91, Sophia-Antipolis, Nice, France*.
- Spitler, J.D., D.E. Fisher, and D.C. Zietlow. 1989. A Primer on the Use of Influence Coefficients in Building Energy Analysis. *Proceedings of the Building Simulation '89 Conference*, pp. 299-304.
- Al-ajmi, F., and V.I. Hanby. 2008. Simulation of energy consumption for Kuwaiti domestic buildings. *Energy and Buildings* 40(6):1101-1109.
- Lam, J.C., K.W. Wan, and Y. Liu. 2008. Sensitivity analysis and energy conservation measures implications. *Energy Conversion and Management* 49(11):3170-3177.
- Kammerud, R., K.L. Gillespie, and M.M. Hydeman. 1999. Economic Uncertainties in Chilled Water System Design. *ASHRAE Transactions* 105(2):562-577.
- Lam, J.C., and S.C. Hui. 1995. Sensitivity Analysis of Energy Performance of Office Buildings. *Building and Environment* 31:27-39.
- Frey, D.J., P.C. Jacobs, and K.F. Johnson. 1993. Commercial Building Performance Evaluation System. *Proceedings of the Building Simulation '93, Adelaide, Australia*.
- Lam, J.C., and S.M. Hui. 1993. Computer Simulation of Energy Performance of Commercial Buildings in Hong Kong. *Proceedings of the Building Simulation '93, Adelaide, Australia*.
- Witte, M.J., C.O. Pedersen and J.D. Spitler. 1989. Techniques for Simultaneous Simulation of Buildings and Mechanical Systems in Heat Balance Based Energy Analysis Programs. *Proceedings of the Building Simulation '89 Conference*, pp. 169-174.
- Maier, T., M. Krzaczek, and J. Tejchman. 2009. Comparison of physical performances of the ventilation systems in low-energy residential houses. *Energy and Buildings* 41(3):337-353.
- Al-Rabghi, O.M., and D.C. Hittle. 2001. Energy simulation in buildings:overview and BLAST example. *Energy Conversion and Management* 42:1623-1635.
- Taylor, R.D., C.O. Pedersen, and L.K. Lawrie. 1991. Simultaneous Simulation of Buildings and Mechanical Systems in Heat Balance Based Energy Analysis Programs. *Proceedings of the System Simulation in Buildings '91*, pp. 87-105.

- Beranek, D.A., and L.K. Lawrie. 1989. Promising (and not so promising) Developments in Energy Analysis Software. *Proceedings of the Building Simulation '89 Conference*, pp. 5-10.
- McQuiston, F.C., and J. Parker. 1988. *Heating, Ventilating, and Air-conditioning Analysis and Design*. New York: John Wiley.
- Underwood, C., and F. Yik. 2004. Modeling Methods for Energy in Buildings. Chapter 4. Oxford: Blackwell Publishing Ltd.
- Spitler, J.D., D.C. Hittle, D.L. Johnson, and C.O. Pedersen. 1987. A Comparative Study of the Performance of Temperature-based and Enthalpy-based Economy Cycles. *ASHRAE Transactions* 93(2):13-22.
- Seem, J.E., and J.M. House. 2010. Development and evaluation of optimization-based air economizer strategies. *Applied Energy* 87(3):910-924.
- Chao, C., and J. Hu. 2004. Development of Dual-Mode Demand Control Ventilation Strategy for Indoor Air Quality Control and Energy Saving. *Building and Environment* 39:385-397.
- Chao, C.Y.H., and J.S. Hu. 2004. Development of an enthalpy and carbon dioxide based demand control ventilation for indoor air quality and energy saving with neural network control. *Indoor and Built Environment* 13(6):463-475.
- Gasparella, A., and G.A. Longo. 2002. Indirect Evaporative Cooling and Economy Cycle in Summer Air Conditioning. *International Journal of Energy Research* 27:625-637.
- Kreider, J.F., P.S. Curtiss, A. Rabl. 2002. *Heating and Cooling of Buildings - Design for Efficiency*, Second Edition. New York: McGraw-Hill.
- Mazzei, P., and A. Palombo. 1999. Economic evaluation of hybrid evaporative technology implementation in Italy. *Building and Environment* 34(5):571-582.
- Seem, J.E., C. Park, and J.M. House. 1999. A New Sequencing Control Strategy for Air Handling Units. *HVAC &R Research* 5(1):35-58.
- Rock, B.A., and C.T. Wu. 1998. Performance of Fixed, Air-Side Economizer, and Neural Network Demand-Controlled Ventilation in CAV Systems. *ASHRAE Transactions* 104(2):234-245.
- Ardehali, M.M., and T.F. Smith. 1996. Evaluation of variable volume and temperature HVAC system for commercial and residential buildings. *Energy Conversion and Management* 37:1469-1479.
- Kreider, J., and A. Rabl. 1994. *Heating and Cooling of Buildings: Design for efficiency*. Chapter 11, Secondary Systems for Heating and Cooling. New York: McGraw-Hill, Inc.

- Brown, W.K. 1991. Application of evaporative cooling concepts to save energy while improving the indoor and outdoor environment. *ASHRAE Transactions* 97(2):843-851.
- Brown, W.K. 1990. Fundamental concepts integrating evaporative techniques in HVAC systems. *ASHRAE Transactions* 96(1):1227-1234.
- Brown, W.K. 1990. Makeup air systems energy-saving opportunities. *ASHRAE Transactions* 96(2):609-615.
- Mutammar, A.W., and D.C. Hittle. 1990. Energy Effects of Various Control Strategies for Variable-Air-Volume Systems. *ASHRAE Transactions* 96(1):98-102.
- Haines, R.W., and D.C. Hittle. 1983. *Control Systems for Heating, Ventilating, and Air Conditioning*, 5<sup>th</sup> Edition. New York: Chapman & Hall.
- Spitler, J.D., C.O. Pedersen, and R.J. Bunkofske. 1987. Experimental Study of Interior Convective and Radiative Heat Transfer in Buildings. *Heat Transfer in Buildings and Structures ASME HTD* 78:67-76.
- Medina, M.A. 1999. A Quasi-Steady-State Heat Balance Model of Residential Walls. *Mathematical and Computer Modeling* 30:103-112.
- Mathews, E. 1994. A First-Order Thermal Model for Building Design. *Energy and Buildings* 21:133-145.
- Spitler, J.D., D.C. Hittle, D.L. Johnson, and C.O. Pedersen. 1986. Fan Electricity Consumption for Variable Air Volume Systems. *ASHRAE Transactions* 92(2B):5-18.
- Hung, C., and H. Lam. 2003. Pressure loss characteristics of thin single-blade flat dampers for square airflow branch ducts. *HVAC&R RESEARCH* 9(3):327-345.
- Bose, J., J. Parker, and F. McQuiston. 1985. Design/Data Manual for Closed-Loop Ground Coupled Heat Pump Systems. Oklahoma State University, Stillwater, OK.
- Zeng, H., N. Diao, and Z. Fang. 2003. Heat transfer analysis of boreholes in vertical ground heat exchangers. *International Journal of Heat and Mass Transfer* 46:4467-4481.