

Papers that summarize research by CBE and affiliated institutions have appeared in the following journals, trade magazines, and conference proceedings. Many of these publications are also available from the eScholarship Repository, online at http://escholarship.org/uc/cedr_cbe.

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Xu, X., Zhang, H., Schiavon, S., Lian, Z., Parkinson, T., & Lo, J. C. (2025). The effects of personal comfort systems on sleep: A systematic review. *Renewable and Sustainable Energy Reviews*, 213, 115474. <https://doi.org/10.1016/j.rser.2025.115474> **NEW**

Tartarini, F., & Schiavon, S. (2025). Comparative analysis of PMV Models accuracy implemented in the ISO 7730:2005 and ASHRAE 55:2023. *Building and Environment*, 275, 112766. <https://doi.org/10.1016/j.buildenv.2025.112766> **NEW**

Roberts, M., Ouellet-Plamondon, C., & Raftery, P. (2025). Embodied carbon in mechanical, electrical, and plumbing systems: A critical literature review. *Building and Environment*, 275, 112823. <https://doi.org/10.1016/j.buildenv.2025.112823> **NEW**

Aijazi, A., Schiavon, S., & Callaway, D. (2025). Building and occupant characteristics as predictors of temperature-related health hazards in American homes. *Building and Environment*, 275, 112805. <https://doi.org/10.1016/j.buildenv.2025.112805> **NEW**

Cascione, V., Roberts, M., Allen, S., Charbel, C., Maskell, D., Dams, B., Shea, A., Walker, P., & Emmitt, S. (2025). Evaluating environmental impacts of bio-based insulation materials through scenario-based and dynamic life cycle assessment. *The International Journal of Life Cycle Assessment*, 30(4), 601–620. <https://doi.org/10.1007/s11367-024-02425-4> **NEW**

Duarte Roa, C., Raftery, P., Schiavon, S., & Bauman, F. (2025). How high can You Go: Determining the warmest supply water temperature for high thermal mass radiant cooling systems under thermal comfort constraints. *Energy and Buildings*, 331, 115387. <https://doi.org/10.1016/j.enbuild.2025.115387> **NEW**

Sun, R., Schiavon, S., Brager, G., Yan, H., & Parkinson, T. (2025). Causal effects estimation: Using natural experiments in observational field studies in building science. *Indoor Environments*, 2(1), 100080. <https://doi.org/10.1016/j.indenv.2025.100080> **NEW**

Zou, A., Duarte Roa, C., & Schiavon, S. (2025). Quantifying Office Building HVAC Marginal Operating Carbon Emissions and Load Shift Potential: A Case Study in California. <http://escholarship.org/uc/item/6nx97049> **NEW**

Nambiar, C., Schiavon, S., Brager, G., & Rosenberg, S. (2025). Assessing thermal comfort and participation in residential demand flexibility programs. *Energy and Buildings*, 328, 115153. <https://doi.org/10.1016/j.enbuild.2024.115153> **NEW**

Lv, G., Duarte Roa, C., Zhao, K., & Ge, J. (2025). Energy Flexibility and Sensitivity Analysis of High Thermal Mass Radiant Terminals. <https://escholarship.org/uc/item/3c2958x1> **NEW**

Jiang, H., Wang, Y., Huizenga, C., Duarte Roa, C., Raftery, P., Schiavon, S., & Brager, G. (2025). Assessing Overheating Risk and Energy Impacts in California's Residential Buildings. <https://escholarship.org/uc/item/1876400c> **NEW**

Lamberti, V., & Lehrer, D. (2025). Mapping Advanced Facades. In U. Berardi (Ed.), *Multiphysics and Multiscale Building Physics* (pp. 284–289). *Springer Nature*. https://doi.org/10.1007/978-981-97-8313-7_39 **NEW**

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Arens, E. A., & Zhang, H. (2024). *Ceiling fan airflow diffuser apparatus* (United States Patent No. US12180976B2). <https://patents.google.com/patent/US12180976B2/en> **NEW**

Raftery, P., Zou, A., Parkinson, T., & Hancock, G. (2024). Reliably estimating the impact of an active control strategy in a building. *Journal of Building Engineering*, 98, 111134. <https://doi.org/10.1016/j.jobbe.2024.111134> **NEW**

Li, P., Zhao, X., Wang, S., Parkinson, T., de Dear, R., & Shi, X. (2024). Evidence-based strategies for optimizing long-term temperature monitoring in offices. *Indoor Environments*, 1(4), 100059. <https://doi.org/10.1016/j.indenv.2024.100059> **NEW**

Wendler, P., Raftery, P., & Cheng, H. (2024). Results from Lab Testing: Rethinking VAV Hot Water Terminal Unit Design. *ASHRAE*, 66(12). <https://escholarship.org/uc/item/6n39m6h8> **NEW**

Huizenga, C., Zhang, H., Schiavon, S., Kwong, L. (Layla) H., Brager, G., Arens, E., Duarte Roa, C., Exss, K., Lehrer, D., Luna-Navarro, A., Nomoto, A., Ouellet-Plamondon, C., Raftery, P., Sun, R., Thero, R., & Wang, Y. (2024). Establishing Maximum Safe Indoor Temperatures for U.S. Residential Buildings. <https://escholarship.org/uc/item/2bt19287> **NEW**

Chen, X., Lv, G., Zhuang, X., Duarte, C., Schiavon, S., & Geyer, P. (2024). Integrating Symbolic Neural Networks with Building Physics: A Study and Proposal (No. arXiv:2411.00800). arXiv. <https://doi.org/10.48550/arXiv.2411.00800> **NEW**

Lamberti, V., Lehrer, D., Betti, G., Carlucci, F., & Fiorito, F. (2024). The Development of an Advanced Facade Map: An Evolving Resource for Documenting Case Studies. *Sustainability*, 16(23), Article 23. <https://doi.org/10.3390/su162310405> **NEW**

Kramer, T., Schiavon, S., & Garcia-Hansen, V. (2024). Spatial Thermal Autonomy (sTA): A New Metric for Enhancing Building Design Towards Comfort, Heat Resilience and Energy Autonomy. <https://escholarship.org/uc/item/9pj5g228> **NEW**

Aijazi, A., Parkinson, T., Zhang, H., & Schiavon, S. (2024). Passive and low-energy strategies to improve sleep thermal comfort and energy resilience during heat waves and cold snaps. *Scientific Reports*, 14(1), 12568. <https://doi.org/10.1038/s41598-024-62377-5>

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Belyamani, M. A., Hurley, R. F., Djamasbi, S., Somasse, G. B., Strauss, S., Zhang, H., Smith, M. J., Van Dessel, S., & Liu, S. (2024). Local wearable cooling may improve thermal comfort, emotion, and cognition. *Building and Environment*, 254, 111367. <https://doi.org/10.1016/j.buildenv.2024.111367>

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Duarte Roa, C., Webster, B., Hu, X., Ackerly, K., Merkel, G. G., & Raftery, P. (2024). *Harmonized Resilience at Roosevelt Village: How Futuristic Grid-Interactivity and Resilience Come Together in Senior Affordable Housing*. <https://escholarship.org/uc/item/8tq4k81m>

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