

Air leakages in air handling units with rotary heat exchanger : estimating extract air transfer to supply air flow

Simson, Raimo; Vösa, Karl-Villem; Kiil, Martin; Mikola, Alo; Kurnitski, Jarek Healthy Buildings America 2021, Honolulu, Hawaii, USA, January 18-20, 2022 : virtual format 2022 / 2 p. : ill https://hb2021-america.exordo.com/files/papers/309/final_draft/HB2021_AHU_air_leakages.pdf

Annual performance analysis of heat emission in radiator and underfloor heating systems in the European reference room

Vösa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 / art. 04009, 8 p <https://doi.org/10.1051/e3sconf/201911104009> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Assessment of downward draught in high-glazing facades in cold climates – experimental and CFD study into draught control with a 21-type radiator

Vösa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 02002, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124602002> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Assessment of SARS-CoV-2 transmission in room with mixing ventilation using CO2 tracer gas technique

Simson, Raimo; Kiil, Martin; Vösa, Karl-Villem; Kesküll, Andre; Kurnitski, Jarek Healthy Buildings America 2021, Honolulu, Hawaii, USA, January 18-20, 2022 : virtual format 2022 / 2 p. : ill https://hb2021-america.exordo.com/files/papers/397/final_draft/HB2021_SARS-CoV-2_infection_risk.pdf

Building performance indicators and IEQ assessment procedure for the next generation of EPC-s

Vösa, Karl-Villem; Ferrantelli, Andrea; Tzanev, Dragomir; Simeonov, Kamen; Camero, Pablo; Espigares, Carlos; Navarro Escudero, Miriam; Quiles, Pedro Vicente; Andrieu, Thibault; Battezzati, Florian; Kurnitski, Jarek E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 13003, 9 p <https://doi.org/10.1051/e3sconf/202124613003> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A combined analytical model for increasing the accuracy of heat emission predictions in rooms heated by radiators

Vösa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek Journal of building engineering 2019 / p. 291-300 <https://doi.org/10.1016/j.jobe.2019.02.009> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cooling thermal comfort and efficiency parameters of ceiling panels, underfloor cooling, fan-assisted radiators, and fan coil

Vösa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek Energies 2022 / art. 4156 <https://doi.org/10.3390/en15114156> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental analysis of emission efficiency of parallel and serial connected radiators in EN442 test chamber

Vösa, Karl-Villem; Ferrantelli, Andrea; Kull, Tuule Mall; Kurnitski, Jarek Applied thermal engineering 2018 / p. 531-544 : ill <https://doi.org/10.1016/j.applthermaleng.2017.12.109> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental study of radiator, underfloor, ceiling and air heater systems heat emission performance in TUT nZEB test facility

Vösa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 / art. 04005, 7 p <https://doi.org/10.1051/e3sconf/201911104005> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Infection risk-based ventilation effectiveness assessment in cruise ship common spaces using tracer gas measurements

Mikola, Alo; Kiil, Martin; Vösa, Karl-Villem; Kurnitski, Jarek E3S Web of Conferences : Roomvent Conference 2024 2024 / 5 p <https://invitepeople.com/public/events/fe41371a0b/pages/ed19d3ae89>

National methods fail to calculate standardized deep renovation concepts for dwellings: Benchmarking in three EU climates

Vösa, Karl-Villem; Kurnitski, Jarek; Felsmann, Clemens; Meinsenbach, Andrea; Carli, Michele De; Tonon, Massimo; Iivonen, Mikko E3S Web of Conferences : 11th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings, IAQVE C2023 2023 / art. 04014, 8 p.: ill <https://doi.org/10.1051/e3sconf/202339604014> [Journal metrics at Scopus](#) [Article at Scopus](#)

A novel method for calculating heat emitter and controller configuration setpoint variations with EN15316-2

Vösa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek Journal of building engineering 2020 / art. 101387 <https://doi.org/10.1016/j.jobe.2020.101387> <https://aaltodoc.aalto.fi/handle/123456789/43872> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization of radiators, underfloor and ceiling heater towards the definition of a reference ideal heater for energy efficient buildings

Ferrantelli, Andrea; Vösa, Karl-Villem; Kurnitski, Jarek Applied sciences 2018 / art. 2477, 22 p. : ill <https://doi.org/10.3390/app8122477> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimized energy scheduling of residential DC building: Case of Nordic climate

Sidorova, Aleksandra; Blinov, Andrei; Ahmadihangar, Roya; Vinnikov, Dmitri; Võsa, Karl-Villem; Kurnitski, Jarek 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 7 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227437>

PCSP's diagonal tie connectors thermal bridges impact on energy performance and operational cost : case study of a high-rise residential building in Estonia

Kiil, Martin; Käärid, Martin-Sven; Klõšeiko, Paul; Võsa, Karl-Villem; Simson, Raimo; Sarevet, Henri; Thalfeldt, Martin; Kurnitski, Jarek E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 80060, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017208006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Point source ventilation effectiveness of mixing ventilation solutions used in non-residential settings

Kiil, Martin; Mikola, Alo; Võsa, Karl-Villem; Simson, Raimo; Kurnitski, Jarek Proceedings, Indoor Air 2024 2024 / 8 p https://www.isiaq.org/conference_proceedings.php

Post-COVID ventilation design : infection risk-based target ventilation rates and point source ventilation effectiveness

Kurnitski, Jarek; Kiil, Martin; Mikola, Alo; Võsa, Karl-Villem; Aganovic, Amar; Schild, Peter G.; Seppänen, Olli Energy and buildings 2023 / art. 113386 <https://doi.org/10.1016/j.enbuild.2023.113386> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Respiratory infection risk based ventilation and room conditioning design method with year-round thermal comfort control in modern office buildings

Kiil, Martin; Simson, Raimo; Võsa, Karl-Villem; Mikola, Alo; Thalfeldt, Martin; Kurnitski, Jarek E3S Web Conference: The 16th ROOMVENT Conference 2022 / art. 05008 <https://doi.org/10.1051/e3sconf/202235605008> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Stratification and draught measurements of ceiling panels, underfloor cooling and fan-assisted radiators

Võsa, Karl-Villem; Eist, Egert; Kurnitski, Jarek CLIMA 2022: the 14th REHVA HVAC World Congress, 22nd – 25th May in Rotterdam, The Netherlands 2022 / p. 1-8 <https://doi.org/10.34641/clima.2022.170>

TalTechis valmistatakse ette hoonete energiatõhususe arenguhüpet

Võsa, Karl-Villem 2025 [TalTechis valmistatakse ette hoonete energiatõhususe arenguhüpet](#)

Temperature calibration and annual performance of cooling for ceiling panels

Seyed Salehi, Seyed Shahabaldin; Võsa, Karl-Villem; Kurnitski, Jarek; Thalfeldt, Martin CLIMA 2022: the 14th REHVA HVAC World Congress, 22nd – 25th May in Rotterdam, The Netherlands 2022 / p. 1-8 <https://doi.org/10.34641/clima.2022.344>

Towards the definition of a reference ideal radiator for the assessment of heat emission efficiency in buildings

Ferrantelli, Andrea; Võsa, Karl-Villem; Kurnitski, Jarek IOP conference series : materials science and engineering 2018 / art. 012034, 8 p. : ill <https://doi.org/10.1088/1757-899X/415/1/012034> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Ventilation effectiveness and incomplete mixing in air distribution design for airborne transmission

Kiil, Martin; Mikola, Alo; Võsa, Karl-Villem; Simson, Raimo; Kurnitski, Jarek Building and environment 2025 / art. 112207 <https://doi.org/10.1016/j.buildenv.2024.112207>

Ventilation effectiveness in classroom infection risk control

Kiil, Martin; Valgma, Ingo; Võsa, Karl-Villem; Simson, Raimo; Mikola, Alo; Tark, Teet; Kurnitski, Jarek E3S Web of Conferences : 11th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings, IAQVEC2023 2023 / art. 01043, 8 p <https://doi.org/10.1051/e3sconf/202339601043> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Ventilation effectiveness measurements and CFD simulations in classrooms for infection risk control

Mikola, Alo; Kiil, Martin; Võsa, Karl-Villem; Ejaz, Muhammad Farhan; Kilpeläinen, Simo; Kosonen, Risto; Kurnitski, Jarek E3S Web of Conferences : Roomvent Conference 2024 2024 / 6 p <https://invitepeople.com/public/events/fe41371a0b/pages/ed19d3ae89>