

1973-1981

- **Berechnung der Luftbewegung in einem zwangsbelüfteten Raum** (Peter V. Nielsen, 1973)
- **Prediction of Temperature and Velocity distribution in an air conditioned room** (Peter V. Nielsen, 1974)
- **Moisture Transfer in Air Conditioned Rooms and Cold Stores** (Peter V. Nielsen, 1974A)
- **Die Berechnung von Raumströmungen** (Peter V. Nielsen, 1975)
- **Contaminant distribution in industrial areas with forced ventilation and two-dimensional flow** (Peter V. Nielsen, 1981)

1992-1994

- **Numerical prediction of flows confined by irregular boundaries, of relevance to room ventilation** (F. A. Castro and A. Restivo, 1992)
- Chen, Q. and Z. Jiang, **Significant Questions in Predicting Room Air Motion**, ASHRAE Transactions, Part 1, 1992, pp. 929-932.
- **Influence of turbulence parameters at supply inlet on room air diffusion** (M.N.A. Said, D.B. Jouini, E.G. Plett, 1993)
- **A Full Multigrid Method Applied to Turbulent Flow using the SIMPLEC Algorithm Together with a Collocated Arrangement** (P. Johansson and L. Davidson, 1994)
- **Room Air and Contaminant Flow, Evaluation of Computational Methods** (A. D. Lemaire, Q. Chen, M. Ewert, J. Heikkinen, C. Inard, A. Moser, P. V. Nielsen and G. Whittle, 1993)
- **Prospects for computational fluid dynamics in room air contaminant control** (Peter V. Nielsen, 1994)
- **Numerical computation of flow and heat transfer in air-conditioned rooms by a special velocity-pressure iteration and multigrid method** (M. Rösler and B. Hanel, 1992)
- Said, M.N.A., D.B. Jouini and E.G. Plett, **Influence of Turbulence Parameters at Supply Inlet on Room Air Distribution**, ASME Winter Annual Meeting, New Orleans, 1993.
- **Comparative studies of selected discretization methods for the numerical solution of room air flow problems** (T. Skalický, G. Morgenstern, A. Auge, B. Hanel and M. Rösler, 1992)
- **Numerical prediction of buoyant air flow in livestock buildings** (K. Svidt, 1993)

1995-1998

- **CFD-simulation of personal exposure to contaminant sources in ventilated rooms** (H. Brohus, 1997A)
- Chen, Q., **Comparison of Different k- $\epsilon$  Models for Indoor Air Flow Computations**, Numerical Heat Transfer Part B, 28: 353-369, 1995.
- Chen, Q., **Prediction of Room Air Motions by Reynolds-Stress Models**, Building and Environment, Vol. 3.1, No 3, pp. 233-244, 1996.
- **Simplified Method for Indoor Airflow Simulation** (Qingyan Chen and Weiran Xu, 1997)
- **Large Eddy simulations of the flow in a three-dimensional ventilated room** (L. Davidson and P. V. Nielsen, 1996)
- **Implementation of a large Eddy simulation method applied to recirculating flow in a ventilated room** (L. Davidson, 1996)
- **Numerical study of the influence of inlet boundary conditions on the air movement in a ventilated enclosure** (P. Joubert, A. Sandu, C. Béghein and F. Allard, 1996)
- P.V. Nielsen, **The Selection of Turbulence Models for Prediction of Room Airflow**, ASHRAE Transactions. – 1998; Vol. 104, Part 1B. – pp. 1119- 1127. – ISSN: 0001-2505.
- **Performance of two-equation turbulence models for numerical simulation of ventilation flows** (S. Peng, L. Davidson and S. Holmberg, 1996)
- **A modified low-Reynolds-number k-w model for recirculating flows** (S. Peng, L. Davidson and S. Holmberg, 1997)
- **The two-equation turbulence k-w model applied to circulating ventilation flows** (S. Peng, L. Davidson and S. Holmberg, 1996)
- **Evaporation controlled emission in ventilated room** (C. Topp, P.V. Nielsen and P. Heiselberg, 1997)

2000-2004

- Collignan, B. and J. Ribéron, **A Numerical Study on Pollutant Removal Effectiveness of a Room, Air Distribution in Rooms**, (ROOMVENT 2000), Elsevier 2000.
- **Zonal model based on airflow partitioning** (S. Guernouti, M. Musy, L. Mora and G. Hégron, 2004)
- Mora, L., A. J. Gadgil and E. Wurtz, **Comparing Zonal and CFD Model Predictions of Isothermal Indoor Airflows to Experimental Data**, Indoor Air 2003; 13; 77-85.
- Peng, S.-H. and L. Davidson, **The Potential of Large Eddy Simulation Techniques for Modelling Indoor Air Flows, Air Distribution in Rooms**, (ROOMVENT 2000), Elsevier 2000.
- **MODELING CHEMICAL REACTIONS IN THE INDOOR ENVIRONMENT BY CFD** (D. N. Sørensen, C. J. Weschler, 2002)
- Sørensen, D.N. and C.J. Weschler, **Model-Gas Phase Reactions in Indoor Environments Using Computational Fluid Dynamics**, Atmospheric Environment 36 (2002) 9-18.
- Teshome, E. J. and F. Haghighat, **Zonal Models for Indoor Air Flow – A Critical Review**, The International Journal of Ventilation, Vol. 3, No. 2, pp. 119-129, 2004.
- C. Topp, P. V. Nielsen and P. Heiselberg, **Influence of Local Airflow on the Pollutant Emission from Indoor Building Surfaces**. Indoor Air 2001; pp. 162-170.
- **Comparison of Turbulence Models for Numerical Calculation of Airflow in an annex 20 Room** (L. Voight, 2000)
- **Numerical analysis of particle dispersion in indoor air using Lagrangian method** (Z. Zhang and Q. Chen, 2004)
- **CFD for simulating air distribution in buildings: the state of the art, challenges, and opportunities** (Q. Chen, 2009)
- **Comparison of different subgrid turbulence models and boundary conditions for large-Eddy-simulations of room air flows** (D. Müller and L. Davidson, 2000)
- **Macroscopic and microscopic analysis of zonal models** (E. J. Teshome and F. Haghighat, 2005)
- **Applications of high-resolution schemes based on normalized variable formulation for 3D indoor airflow simulations** (K. C. Ng, E. Y. K. Ng, M. Z. Yusoff and T. K. Lim, 2008)
- **Validation of the zonal method for the case of isothermal airflow in a rectangular cavity** (T. Czelusniak, K. C. Mendonça, and M. O. Abadie, 2009)
- **The IEA Annex 20 Two-Dimensional Benchmark Test for CFD Predictions** (Peter V. Nielsen, Li Rong and Inés Olmedo, 2010)
- **Analysis of the IEA 2D test. 2D, 3D, steady or unsteady airflow?** (Inés Olmedo and Peter V. Nielsen, 2010)
- **Simulation with different turbulence models in an annex 20 room benchmark test using Ansys CFX 11.0** (L. Rong and P. V. Nielsen, 2008)
- **Real-time or faster-than-real-time simulation of airflow in buildings** (W. Zou and Q. Chen, 2008)

#### 2011- 2020

- **Simulation with different turbulence models in an Annex 20 benchmark test using Star-CCM+** (Jérôme Le Dréau, Per Heiselberg, Peter V. Nielsen, 2012)
- **A Discussion of Low Reynolds Number Flow for the Two-Dimensional Benchmark Test Case** (M. Weng, P. V. Nielsen and L. Liu, 2012)
- **CFD Benchmark Tests for Indoor Environmental Problems: Part 1 Isothermal/Non-Isothermal Flow in 2D and 3D Room Model** (K. Ito, K. Inthavong, etc., 2015)
- **Evaluation of mean velocity and mean speed for test ventilated room from RANS and LES CFD modeling** (N. Ivanov, et al., 2018)

#### 2021- PRESENT

- **Returning characteristics of pollutants for a local domain in the presence of returning and recirculating airflow in indoor environments** (Eunsu Lim, Mats Sandberg, Kazuhide Ito, 2021)

#### IEA ANNEX 20

- **Simulation of simple test cases** (Q. Chen, 1991)
- **Simulation of simple (two-dimensional) test cases** (J. Heikkinen and K. Piira, 1991)
- **Simulation of simple test cases 2d1, 2d2** (A. D. Lemaire, 1991)
- **Simulation of a two-dimensional benchmark test case** (M. N. Said, 1991)
- **Simulation of simple test case, case 2d1** (M. Skovgaard and P. V. Nielsen, 1991)
- **Simulation of simple test cases** (N. Vogel and U. Renz, 1991)

## PHD THESES

- **Numerical Simulation of Turbulent Airflow in Livestock Buildings** - abstract (J. C. Bennetsen, 1999)
- **Personal Exposure to Contaminant Sources in Ventilated Rooms** (H. Brohus, 1997)
- **Development and Implementation of Fast Implicit Multigrid Method for Large Eddy Simulations** (P. Emvin and L. Davidson, 1997)
- **Flow in air conditioned rooms - model experiments and numerical solution of the flow equations** (P. V. Nielsen, 1974)
- Zhengen Ren, **Enhanced modelling of indoor air flows, temperatures, pollutant emission and dispersion by nesting sub-zones within a multizone model**. PhD Thesis, The Queens University of Belfast, September 2002
- **Diffusion and evaporation-controlled emission in ventiated rooms** (C. Topp, 1999)
- **Navier-Stokes simulations of airflow in rooms and around a human body** (L. Voight, 2001)
- **Numerical study of three dimensional turbulent flows in a habitat with coupled heat and mass transfer** ( S. Luo, 2003)