

# Journalartikel (Auszug)

2025

Wegmann, Tim; Niemöller, Ansgar; Meinke, Matthias; Schröder, Wolfgang - "Parallel Eulerian-Lagrangian coupling method on hierarchical meshes" - Journal of computational physics - vol 521 no Part 1 content/page 113509 - [doi:10.1016/j.jcp.2024.113509](https://doi.org/10.1016/j.jcp.2024.113509)

2024

Hübenthal, Fabian; Meinke, Matthias; Schröder, Wolfgang - "Surrogate Modeling for Active Drag Reduction in Turbulent Boundary Layer Flows Using Multitask Gaussian Process Regression" - Proceedings in applied mathematics and mechanics : PAMM - vol 24 no 4 content/page e202400186 - [doi:10.1002/pamm.202400186](https://doi.org/10.1002/pamm.202400186)

Tchoupe Sambou, Elio; Lauwers, Daniel; Petersen, Timm; Herrig, Tim; Klink, Andreas; Meinke, Matthias; Schröder, Wolfgang - "Investigating Workpiece Deflection in Precise Electrochemical Machining of Turbine Blades" - Journal of manufacturing and materials processing - vol 8 no 4 content/page 138 - [doi:10.3390/jmmp8040138](https://doi.org/10.3390/jmmp8040138)

Hösgen, Thomas; Meinke, Matthias; Schröder, Wolfgang - "Analysis of Ingress Into the Downstream Wheel Space of a 1.5-Stage Turbine By Full Circumference and Single Blade Passage Large-Eddy Simulations" - Journal of turbomachinery - vol 146 no 9 content/page 091006 - [doi:10.1115/1.4065129](https://doi.org/10.1115/1.4065129)

Hösgen, Thomas; Meinke, Matthias; Schröder, Wolfgang - "Analysis of single-blade passage and full circumference large-eddy simulations of turbine rim seal flows" - Journal of turbomachinery - vol 146 no 4 content/page 041002 - [doi:10.1115/1.4064086](https://doi.org/10.1115/1.4064086)

Wegmann, Tim; Meinke, Matthias; Fleischmann, Maximilian; Pischinger, Stefan; Schröder, Wolfgang - "Numerical Analysis of Mixing of Bio-Hybrid Fuels in a Direct Injection Engine with a Pre-Chamber Ignition System" - SAE technical paper - vol 2024-01-2619 content/page 1-16 - [doi:10.4271/2024-01-2619](https://doi.org/10.4271/2024-01-2619)

Lürkens, Thomas; Meinke, Matthias; Schröder, Wolfgang - "Impact of 2D engine nacelle flow on buffet" - CEAS Aeronautical Journal - vol 15 no 1 content/page 23-35 - [doi:10.1007/s13272-024-00728-8](https://doi.org/10.1007/s13272-024-00728-8)

2023

Tchoupe Sambou, Elio; Lauwers, Daniel; Herrig, Tim; Klink, Andreas; Meinke, Matthias; Klaas, Michael; Schröder, Wolfgang - "Optical in Situ Analysis of Gas Bubble Evolution in Electrochemical Machining Based on Similarity Theory Using Particle Image Velocimetry" - Procedia CIRP - vol 117 content/page 257-262

Hübenthal, Fabian; Albers, Marian; Meinke, Matthias; Schröder, Wolfgang - "Surrogate-based optimization for active drag reduction of turbulent boundary layer flows" - Proceedings in applied mathematics and mechanics : PAMM - vol 23 no 4 content/page e202300190 - [doi:10.1002/pamm.202300190](https://doi.org/10.1002/pamm.202300190)

Tchoupe Sambou, Elio; Lauwers, Daniel; Heidemanns, Lukas Franz; Herrig, Tim; Klink, Andreas; Meinke, Matthias; Klaas, Michael; Schröder, Wolfgang - "Optical in Situ Analysis of Gas Bubble Evolution in Electrochemical Machining Based on Similarity Theory Using Particle Image Velocimetry" - Procedia CIRP - vol 117 content/page 257-262 - [doi:10.1016/j.procir.2023.03.044](https://doi.org/10.1016/j.procir.2023.03.044)

Wegmann, Tim; Meinke, Matthias; Schröder, Wolfgang - "Numerical Analyses of Spray Penetration and Evaporation in a Direct Injection Engine" - SAE technical papers - vol 2023-01-0310 content/page 16 Seiten - [doi:10.4271/2023-01-0310](https://doi.org/10.4271/2023-01-0310)

Gondrum, Miro; Satcunanathan, Sutharsan; Niemöller, Ansgar; Meinke, Matthias; Schröder, Wolfgang - "A direct-hybrid CFD/CAA method based on lattice Boltzmann and acoustic perturbation equations" - Acta Acustica - vol 7 content/page 5 - [doi:10.1051/aacus/2022062](https://doi.org/10.1051/aacus/2022062)

Zamponi, R.; Satcunanathan, S.; Moreau, S.; Meinke, Matthias; Schröder, Wolfgang; Schram, C. - "Effect of porosity on Curle's dipolar sources on an aerofoil in turbulent flow" - Journal of sound and vibration - vol 542 content/page 117353 - [doi:10.1016/j.jsv.2022.117353](https://doi.org/10.1016/j.jsv.2022.117353)

2022

Frotscher, Ophelia; Schaarschmidt, Ingo; Lauwers, Daniel; Paul, Raphael; Meinke, Matthias; Steinert, Philipp; Schubert, Andreas; Schröder, Wolfgang; Richter, Markus - "Investigation of Lorentz force-induced flow of NaNO<sub>3</sub>-electrolyte for magnetic field-assisted electrochemical machining" - The international journal of advanced manufacturing technology - vol 121 no 1/2 content/page 937-947 - [doi:10.1007/s00170-022-09349-z](https://doi.org/10.1007/s00170-022-09349-z)

Kiwitt, Thede; Fröhlich, Konstantin; Meinke, Matthias; Schröder, Wolfgang - "Nusselt correlation for ellipsoidal particles" -

International journal of multiphase flow - vol 149 content/page 103941 - [doi:10.1016/j.ijmultiphaseflow.2021.103941](https://doi.org/10.1016/j.ijmultiphaseflow.2021.103941)

Satcunanathan, Sutharsan; Meinke, Matthias; Schröder, Wolfgang - "Impact of Porous Media on Boundary Layer Turbulence" - Fluids - vol 7 no 4 content/page 139 - [doi:10.3390/fluids7040139](https://doi.org/10.3390/fluids7040139)

Herff, Sohel; Pausch, Konrad; Meinke, Matthias; Schröder, Wolfgang - "Analysis of the sound sources of lean premixed methane-air flames" - GAMM-Mitteilungen - vol 45 no 1 content/page 20 - [doi:10.1002/gamm.202200001](https://doi.org/10.1002/gamm.202200001)

## 2021

Rommes, Bob; Lauwers, Daniel; Herrig, Tim; Meinke, Matthias; Schröder, Wolfgang; Klink, Andreas - "Concept for the experimental and numerical study of fluid-structure interaction and gas transport in Precise Electrochemical Machining" - Procedia CIRP - vol 102 content/page 204-209

Fröhlich, Konstantin; Farmand, Pooria; Pitsch, Heinz; Meinke, Matthias; Schröder, Wolfgang - "Particle Reynolds number effects on settling ellipsoids in isotropic turbulence" - International journal of multiphase flow - vol 139 content/page 103566 - [doi:10.1016/j.ijmultiphaseflow.2021.103566](https://doi.org/10.1016/j.ijmultiphaseflow.2021.103566)

Herff, Sohel Sebastian; Niemöller, Ansgar; Meinke, Matthias; Schröder, Wolfgang - "LES of a turbulent swirl flame using a mesh adaptive level-set method with dynamic load balancing" - Computers & fluids - vol 221 content/page 104900 - [doi:10.1016/j.compfluid.2021.104900](https://doi.org/10.1016/j.compfluid.2021.104900)

Brito Gadeschi, Gonzalo; Schilden, Thomas; Albers, Marian; Vorspohl, Julian; Meinke, Matthias; Schröder, Wolfgang - "Direct particle-fluid simulation of flushing flow in electrical discharge machining" - Engineering applications of computational fluid mechanics - vol 15 no 1 content/page 328-343 - [doi:10.1080/19942060.2021.1877198](https://doi.org/10.1080/19942060.2021.1877198)

## 2020

Vorspohl, Julian; Frerichs, Friedhelm; Schneider, Sebastian; Meinke, Matthias; Schröder, Wolfgang; Lübben, Thomas; Klink, Andreas - "Determination of residual stresses in processes with multiple thermal loads" - Procedia CIRP - vol 87 content/page 509-514

Vorspohl, Julian; Frerichs, Friedhelm; Schneider, Sebastian; Meinke, Matthias; Schröder, Wolfgang; Lübben, Thomas; Klink, Andreas - "Determination of residual stresses in processes with multiple thermal loads" - Procedia CIRP - vol 87 content/page 509-514 - [doi:10.1016/j.procir.2020.02.066](https://doi.org/10.1016/j.procir.2020.02.066)

Hösgen, Thomas; Meinke, Matthias; Schröder, Wolfgang - "Large-Eddy Simulations of Rim Seal Flow in a One-Stage Axial Turbine" - Journal of the Global Power and Propulsion Society - vol 4 content/page 309-321 - [doi:10.33737/jgpps/129704](https://doi.org/10.33737/jgpps/129704)

Berger, Sven Christian; Wegmann, Tim; Meinke, Matthias; Schröder, Wolfgang - "Large-Eddy Simulation Study of Biofuel Injection in an Optical Direct Injection Engine" - SAE technical paper - vol 2020-01-2121 content/page [1]-18 - [doi:10.4271/2020-01-2121](https://doi.org/10.4271/2020-01-2121)

Marten, David; Paschereit, Christian O.; Huang, Xu; Meinke, Matthias; Schröder, Wolfgang; Müller, Jens; Oberleithner, Kilian - "Predicting Wind Turbine Wake Breakdown Using a Free Vortex Wake Code" - AIAA journal - vol 58 no 11 content/page 4672-4685 - [doi:10.2514/1.j058308](https://doi.org/10.2514/1.j058308)

Zamponi, R.; Satcunanathan, S.; Moreau, S.; Ragni, D.; Meinke, Matthias; Schröder, Wolfgang; Schram, C. - "On the role of turbulence distortion on leading-edge noise reduction by means of porosity" - Journal of sound and vibration - vol 485 content/page 115561 - [doi:10.1016/j.jsv.2020.115561](https://doi.org/10.1016/j.jsv.2020.115561)

Alavi Moghadam, Seyed Mohsen; Loosen, Simon André; Meinke, Matthias; Schröder, Wolfgang - "Reduced-order analysis of the acoustic near field of a ducted axial fan" - The international journal of heat and fluid flow - vol 85 content/page 108657 - [doi:10.1016/j.ijheatfluidflow.2020.108657](https://doi.org/10.1016/j.ijheatfluidflow.2020.108657)

Fröhlich, Konstantin; Meinke, Matthias; Schröder, Wolfgang - "Correlations for inclined prolates based on highly resolved simulations" - Journal of fluid mechanics - vol 901 content/page A5 - [doi:10.1017/jfm.2020.482](https://doi.org/10.1017/jfm.2020.482)

Huang, Xu; Albers, Marian; Meysonnat, Pascal; Meinke, Matthias; Schröder, Wolfgang - "Analysis of the effect of freestream turbulence on dynamic stall of wind turbine blades" - The international journal of heat and fluid flow - vol 85 content/page 108668 - [doi:10.1016/j.ijheatfluidflow.2020.108668](https://doi.org/10.1016/j.ijheatfluidflow.2020.108668)

Lintermann, Andreas; Meinke, Matthias; Schröder, Wolfgang - "Zonal Flow Solver (ZFS): a highly efficient multi-physics simulation framework" - International journal of computational fluid dynamics - content/page 1-28 - [doi:10.1080/10618562.2020.1742328](https://doi.org/10.1080/10618562.2020.1742328)

Niemöller, Ansgar; Schlottke-Lakemper, Michael Alexander; Meinke, Matthias; Schröder, Wolfgang - "Dynamic load balancing for direct-coupled multiphysics simulations" - Computers & fluids - vol 199 content/page 104437 - [doi:10.1016/j.compfluid.2020.104437](https://doi.org/10.1016/j.compfluid.2020.104437)

Loosen, Simon André; Meinke, Matthias; Schröder, Wolfgang - "Numerical Investigation of Jet-Wake Interaction for a Dual-Bell Nozzle" - Flow, turbulence and combustion - vol 104 no 2/3 content/page 553-578 - [doi:10.1007/s10494-019-00056-6](https://doi.org/10.1007/s10494-019-00056-6)

## 2019

Schneiders, Lennart; Fröhlich, Konstantin; Meinke, Matthias; Schröder, Wolfgang - "The decay of isotropic turbulence carrying non-spherical finite-size particles" - Journal of fluid mechanics - vol 875 content/page 520-542 - [doi:10.1017/jfm.2019.516](https://doi.org/10.1017/jfm.2019.516)

Schlottke-Lakemper, Michael Alexander; Niemöller, Ansgar; Meinke, Matthias; Schröder, Wolfgang - "Efficient parallelization for volume-coupled multiphysics simulations on hierarchical Cartesian grids" - Computer methods in applied mechanics and engineering - vol 352 content/page 461-487 - [doi:10.1016/j.cma.2019.04.032](https://doi.org/10.1016/j.cma.2019.04.032)

Satcunanathan, Sutharsan; Meinke, Matthias; Schröder, Wolfgang - "Prediction of Noise Mitigation by Porous Media based on a Direct-Hybrid CFD/CAA Method" - AIAA paper - vol 2019-2696 content/page 15 pages - [doi:10.2514/6.2019-2696](https://doi.org/10.2514/6.2019-2696)

Niemöller, Ansgar; Meinke, Matthias; Schröder, Wolfgang; Albring, Tim A.; Gauger, Nicolas R. - "Noise Reduction Using a Direct-Hybrid CFD/CAA Method" - AIAA paper - vol 2019-2579 content/page 15 pages - [doi:10.2514/6.2019-2579](https://doi.org/10.2514/6.2019-2579)

Huang, Xianshu; Alavi Moghadam, Seyed Mohsen; Meysonnat, Pascal; Meinke, Matthias; Schröder, Wolfgang - "Numerical analysis of the effect of flaps on the tip vortex of a wind turbine blade" - The international journal of heat and fluid flow - vol 77 content/page 336-351 - [doi:10.1016/j.ijheatfluidflow.2019.05.004](https://doi.org/10.1016/j.ijheatfluidflow.2019.05.004)

Alavi Moghadam, Seyed Mohsen; Meinke, Matthias; Schröder, Wolfgang - "Analysis of tip-leakage flow in an axial fan at varying tip-gap sizes and operating conditions" - Computers & fluids - vol 183 content/page 107-129 - [doi:10.1016/j.compfluid.2019.01.014](https://doi.org/10.1016/j.compfluid.2019.01.014)

Alavi Moghadam, Seyed Mohsen; Meinke, Matthias; Schröder, Wolfgang - "Numerical Analysis of the Acoustic Field of a Ducted Axial Fan at Varying Tip Clearances" - Acta acustica united with acustica - vol 105 no 1 content/page 43-55 - [doi:10.3813/AAA.919286](https://doi.org/10.3813/AAA.919286)

## 2018

Brinksmeier, E.; Reese, Stefanie; Klink, Andreas; Langenhorst, L.; Lübben, T.; Meinke, Matthias; Meyer, D.; Riemer, O.; Sölter, J. - "Underlying Mechanisms for Developing Process Signatures in Manufacturing" - Nanomanufacturing and Metrology - vol 1 no 4 content/page 193-208 - [doi:10.1007/s41871-018-0021-z](https://doi.org/10.1007/s41871-018-0021-z)

Miller, Julian; Wienke, Sandra Juliane; Schlottke-Lakemper, Michael Alexander; Meinke, Matthias; Müller, Matthias S. - "Applicability of the software cost model COCOMO II to HPC projects" - International journal of computational science and engineering : IJCSE - vol 17 no 3 content/page 283-296 - [doi:10.1504/IJCSE.2018.095849](https://doi.org/10.1504/IJCSE.2018.095849)

Pogorelov, Alexej; Meinke, Matthias; Schröder, Wolfgang - "Large-Eddy Simulation of the Unsteady Full 3D Rim Seal Flow in a One-Stage Axial-Flow Turbine" - Flow, turbulence and combustion - vol 101 no 1 content/page 189-220 - [doi:10.1007/s10494-018-9956-9](https://doi.org/10.1007/s10494-018-9956-9)

Fröhlich, Konstantin; Schneiders, Lennart; Meinke, Matthias; Schröder, Wolfgang - "Validation of Lagrangian Two-Way Coupled Point-Particle Models in Large-Eddy Simulations" - Flow, turbulence and combustion - vol 101 no 2 content/page 317-341 - [doi:10.1007/s10494-018-9933-3](https://doi.org/10.1007/s10494-018-9933-3)

Zhou, Beckett; Koh, Seong Ryong; Gauger, Nicolas R.; Meinke, Matthias; Schröder, Wolfgang - "A discrete adjoint framework for trailing-edge noise minimization via porous material" - Computers & fluids - vol 172 content/page 97-108 - [doi:10.1016/j.compfluid.2018.06.017](https://doi.org/10.1016/j.compfluid.2018.06.017)

Cetin, Mehmet Onur; Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Computational analysis of exit conditions on the sound field of turbulent hot jets / Edited by Lutz Lesshafft, Peter Jordan, Anurag Agarwal" - Comptes rendus mécanique - vol 346 no 10 content/page 932-947 - [doi:10.1016/j.crme.2018.07.006](https://doi.org/10.1016/j.crme.2018.07.006)

Loosen, Simon André; Statnikov, Vladimir; Meinke, Matthias; Schröder, Wolfgang - "Modal analysis of passive flow control for the turbulent wake of a generic planar space launcher" - CEAS space journal - vol 10 no 2 content/page 189-202 - [doi:10.1007/s12567-017-0183-3](https://doi.org/10.1007/s12567-017-0183-3)

Koh, Seong Ryong; Zhou, Beckett Y.; Meinke, Matthias; Gauger, Nicolas Ralph; Schröder, Wolfgang - "Numerical Analysis of the Impact of Variable Porosity on Trailing-Edge Noise" - Computers & fluids - vol 132 content/page 43-48 - [doi:10.1016/j.compfluid.2018.02.015](https://doi.org/10.1016/j.compfluid.2018.02.015)

Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Numerical analysis of the impact of permeability on trailing-edge noise" - Journal of sound and vibration - vol 421 content/page 348-376 - [doi:10.1016/j.jsv.2018.02.017](https://doi.org/10.1016/j.jsv.2018.02.017)

Pogorelov, Alexej; Schneiders, Lennart; Meinke, Matthias; Schröder, Wolfgang - "An Adaptive Cartesian Mesh Based Method to Simulate Turbulent Flows of Multiple Rotating Surfaces" - Flow, turbulence and combustion - vol 100 no 1 content/page 19-38 - [doi:10.1007/s10494-017-9827-9](https://doi.org/10.1007/s10494-017-9827-9)

## 2017

Cetin, Mehmet Onur; Meinke, Matthias; Schröder, Wolfgang - "Numerical analysis of the impact of exit conditions on low Mach number turbulent jets" - The international journal of heat and fluid flow - vol 67 no Part A content/page 1-12 - [doi:10.1016/j.ijheatfluidflow.2017.07.003](https://doi.org/10.1016/j.ijheatfluidflow.2017.07.003)

Bönisch, Thomas; Resch, Michael; Schwitalla, Thomas; Meinke, Matthias; Wulfmeyer, Volker; Warrach-Sagi, Kirsten - "Hazel Hen - leading HPC technology and its impact on science in Germany and Europe" - Parallel computing - vol 64 content/page 3-11 - [doi:10.1016/j.parco.2017.02.002](https://doi.org/10.1016/j.parco.2017.02.002)

Brito Gadeschi, Gonzalo; Schneider, Sebastian; Mohammadnejad, Menoush; Meinke, Matthias; Klink, Andreas; Schröder, Wolfgang; Klocke, Fritz - "Numerical Analysis of Flushing-Induced Thermal Cooling Including Debris Transport in Electrical Discharge Machining (EDM)" - Procedia CIRP - vol 58 content/page 116-121 - [doi:10.1016/j.procir.2017.03.325](https://doi.org/10.1016/j.procir.2017.03.325)

Schneiders, Lennart; Meinke, Matthias; Schröder, Wolfgang - "On the accuracy of Lagrangian point-mass models for heavy non-spherical particles in isotropic turbulence" - Fuel : the science and technology of fuel and energy - vol 201 content/page 2-14 - [doi:10.1016/j.fuel.2016.11.096](https://doi.org/10.1016/j.fuel.2016.11.096)

Schneiders, Lennart; Meinke, Matthias; Schröder, Wolfgang - "Direct particle-fluid simulation of Kolmogorov-length-scale size particles in decaying isotropic turbulence" - Journal of fluid mechanics - vol 819 content/page 188-227 - [doi:10.1017/jfm.2017.171](https://doi.org/10.1017/jfm.2017.171)

Statnikov, Vladimir; Meinke, Matthias; Schröder, Wolfgang - "Reduced-order analysis of buffet flow of space launchers" - Journal of fluid mechanics - vol 815 content/page 1-25 - [doi:10.1017/jfm.2017.46](https://doi.org/10.1017/jfm.2017.46)

Cetin, Mehmet Onur; Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Numerical Analysis of the Impact of the Interior Nozzle Geometry on Low Mach Number Jet Acoustics" - Flow, turbulence and combustion - vol 98 no 2 content/page 417-443 - [doi:10.1007/s10494-016-9764-z](https://doi.org/10.1007/s10494-016-9764-z)

Schlottke-Lakemper, Michael Alexander; Yu, Hans; Berger, Sven Christian; Meinke, Matthias; Schröder, Wolfgang - "A fully coupled hybrid computational aeroacoustics method on hierarchical Cartesian meshes" - Computers & fluids - vol 144 content/page 137-153 - [doi:10.1016/j.compfluid.2016.12.001](https://doi.org/10.1016/j.compfluid.2016.12.001)

Schlimpert, S.; Koh, Seong Ryong; Pausch, K.; Meinke, Matthias; Schröder, Wolfgang - "Analysis of combustion noise of a turbulent premixed slot jet flame" - Combustion and flame - vol 175 content/page 292-306 - [doi:10.1016/j.combustflame.2016.08.001](https://doi.org/10.1016/j.combustflame.2016.08.001)

## 2016

Yu, Jiangang; Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Noise Reduction via Jet Injection near the Trailing Edge" - AIAA paper - vol 2831 content/page 2013-2028 - [doi:10.2514/6.2016-2831](https://doi.org/10.2514/6.2016-2831)

Statnikov, Vladimir; Roidl, Benedikt; Meinke, Matthias; Schröder, Wolfgang - "Analysis of spatio-temporal wake modes of space launchers at transonic flow" - AIAA paper - vol 1116 content/page 9850-9861 - [doi:10.2514/6.2016-1116](https://doi.org/10.2514/6.2016-1116)

Pogorelov, Alexej; Meinke, Matthias; Schröder, Wolfgang - "Impact of periodic boundary conditions on the flow field in an axial fan" - AIAA paper - vol 610 content/page 5782-5794 - [doi:10.2514/6.2016-0610](https://doi.org/10.2514/6.2016-0610)

Statnikov, Vladimir; Stephan, S.; Pausch, K.; Meinke, Matthias; Radespiel, R.; Schröder, Wolfgang - "Experimental and numerical investigations of the turbulent wake flow of a generic space launcher at  $M=3$  and  $M=6$ " - CEAS space journal - vol 8 no 2 content/page 101-116 - [doi:10.1007/s12567-016-0112-x](https://doi.org/10.1007/s12567-016-0112-x)

Pogorelov, Alexej; Meinke, Matthias; Schröder, Wolfgang - "Effects of tip-gap width on the flow field in an axial fan" - The international journal of heat and fluid flow - vol 61 no Part B content/page 466-481 - [doi:10.1016/j.ijheatfluidflow.2016.06.009](https://doi.org/10.1016/j.ijheatfluidflow.2016.06.009)

Cetin, Mehmet Onur; Pauz, Vitali; Meinke, Matthias; Schröder, Wolfgang - "Computational analysis of nozzle geometry variations for subsonic turbulent jets" - Computers & fluids - vol 136 content/page 467-484 - [doi:10.1016/j.compfluid.2016.05.033](https://doi.org/10.1016/j.compfluid.2016.05.033)

Statnikov, Vladimir; Bolgar, I.; Scharnowski, S.; Meinke, Matthias; Kähler, C. J.; Schröder, Wolfgang - "Analysis of characteristic wake flow modes on a generic transonic backward-facing step configuration" - European journal of mechanics / B - vol 59 content/page 124-134 - [doi:10.1016/j.euromechflu.2016.05.008](https://doi.org/10.1016/j.euromechflu.2016.05.008)

Schlimpert, Stephan; Meinke, Matthias; Schröder, Wolfgang - "Nonlinear analysis of an acoustically excited laminar premixed flame" - Combustion and flame - vol 163 content/page 337-357 - [doi:10.1016/j.combustflame.2015.09.035](https://doi.org/10.1016/j.combustflame.2015.09.035)

Schlimpert, S.; Feldhusen, A.; Grimmen, J. H.; Roidl, B.; Meinke, Matthias; Schröder, Wolfgang - "Hydrodynamic instability and shear layer effects in turbulent premixed combustion" - Physics of fluids - vol 28 no 1 content/page 017104 - [doi:10.1063/1.4940161](https://doi.org/10.1063/1.4940161)

Schneiders, Lennart; Günther, Claudia; Meinke, Matthias; Schröder, Wolfgang - "An efficient conservative cut-cell method for rigid bodies interacting with viscous compressible flows" - Journal of computational physics - vol 311 content/page 62-86 - [doi:10.1016/j.jcp.2016.01.026](https://doi.org/10.1016/j.jcp.2016.01.026)

## 2015

Brito Gadeschi, Gonzalo; Schneiders, Lennart; Meinke, Matthias; Schröder, Wolfgang - "A numerical method for multiphysics simulations based on hierarchical Cartesian grids" - Journal of fluid science and technology - vol 10 no 1 content/page JFST0002 - [doi:10.1299/jfst.2015jfst0002](https://doi.org/10.1299/jfst.2015jfst0002)

Schneiders, Lennart; Grimmen, Jerry H.; Meinke, Matthias; Schröder, Wolfgang - "An efficient numerical method for fully-resolved particle simulations on high-performance computers" - Proceedings in applied mathematics and mechanics : PAMM - vol 15 no 1 content/page 495-496 - [doi:10.1002/pamm.201510238](https://doi.org/10.1002/pamm.201510238)

Koh, Seong Ryong; Meysonnat, Pascal; Statnikov, Vladimir; Meinke, Matthias; Schröder, Wolfgang - "Dependence of turbulent wall-shear stress on the amplitude of spanwise transversal surface waves" - Computers & fluids - vol 119 content/page 261-275 - [doi:10.1016/j.compfluid.2015.06.021](https://doi.org/10.1016/j.compfluid.2015.06.021)

Koh, Seong Ryong; Meysonnat, Pascal; Meinke, Matthias; Schröder, Wolfgang - "Drag Reduction Via Spanwise Transversal Surface Waves at High Reynolds Numbers" - Flow, turbulence and combustion - vol 95 no 1 content/page 169-190 - [doi:10.1007/s10494-015-9614-4](https://doi.org/10.1007/s10494-015-9614-4)

Pogorelov, Alexej; Meinke, Matthias; Schröder, Wolfgang - "Cut-cell method based large-eddy simulation of tip-leakage flow" - Physics of fluids - vol 27 no 7 content/page 075106 - [doi:10.1063/1.4926515](https://doi.org/10.1063/1.4926515)

Statnikov, Vladimir; Sayadi, Taraneh; Meinke, Matthias; Schmid, Peter; Schröder, Wolfgang - "Analysis of pressure perturbation sources on a generic space launcher after-body in supersonic flow using zonal turbulence modeling and dynamic mode decomposition" - Physics of fluids - vol 27 no 1 content/page 016103 - [doi:10.1063/1.4906219](https://doi.org/10.1063/1.4906219)

Winnemöller, Tobias; Meinke, Matthias; Schröder, Wolfgang - "Comparison of the mixing efficiency of different injector configurations" - Computers & fluids - vol 117 content/page 262-272 - [doi:10.1016/j.compfluid.2015.05.017](https://doi.org/10.1016/j.compfluid.2015.05.017)

Schlimpert, Stephan; Hemchandra, Santosh; Meinke, Matthias; Schröder, Wolfgang - "Hydrodynamic instability and shear layer effect on the response of an acoustically excited laminar premixed flame" - Combustion and flame - vol 162 no 2 content/page 345-367 - [doi:10.1016/j.combustflame.2014.08.001](https://doi.org/10.1016/j.combustflame.2014.08.001)

## 2014

Siewert, Christoph; Bordás, Róbert; Wacker, Ulrike; Beheng, K. D.; Kunnen, R. P. J.; Meinke, Matthias; Schröder, Wolfgang; Thevenin, Dominique - "Influence of turbulence on the drop growth in warm clouds, Part I : comparison of numerically and experimentally determined collision kernels" - Meteorologische Zeitschrift - vol 23 no 4 content/page 397-410 - [doi:10.1127/0941-2948/2014/0566](https://doi.org/10.1127/0941-2948/2014/0566)

Günther, Claudia; Meinke, Matthias; Schröder, Wolfgang - "A flexible level-set approach for tracking multiple interacting interfaces in embedded boundary methods" - Computers & fluids - vol 102 content/page 182-202 - [doi:10.1016/j.compfluid.2014.06.023](https://doi.org/10.1016/j.compfluid.2014.06.023)

Lintermann, Andreas; Schlimpert, S.; Grimmen, J. H.; Günther, C.; Meinke, Matthias; Schröder, Wolfgang - "Massively parallel grid generation on HPC systems" - Computer methods in applied mechanics and engineering - vol 277 content/page 131-153 - [doi:10.1016/j.cma.2014.04.009](https://doi.org/10.1016/j.cma.2014.04.009)

Siewert, C.; Kunnen, R. P. J.; Meinke, Matthias; Schröder, Wolfgang - "Orientation statistics and settling velocity of ellipsoids in decaying turbulence" - Atmospheric research - vol 142 no SI content/page 45-56 - [doi:10.1016/j.atmosres.2013.08.011](https://doi.org/10.1016/j.atmosres.2013.08.011)

Roidl, B.; Meinke, Matthias; Schröder, Wolfgang - "Boundary layers affected by different pressure gradients investigated computationally by a zonal RANS-LES method" - The international journal of heat and fluid flow - vol 45 content/page 1-13 - [doi:10.1016/j.ijheatfluidflow.2013.11.004](https://doi.org/10.1016/j.ijheatfluidflow.2013.11.004)

## 2013

Statnikov, V.; Meiß, J.-H.; Meinke, Matthias; Schröder, Wolfgang - "Investigation of the turbulent wake flow of generic launcher

configurations via a zonal RANS/LES method" - CEAS space journal - vol 5 no 1/2 content/page 75-86 - [doi:10.1007/s12567-013-0045-6](https://doi.org/10.1007/s12567-013-0045-6)

Koh, Seong Ryong; Schröder, Wolfgang; Meinke, Matthias - "Noise sources in heated coaxial jets" - Computers & fluids - vol 78 content/page 24-28 - [doi:10.1016/j.compfluid.2011.08.021](https://doi.org/10.1016/j.compfluid.2011.08.021)

Lintermann, Andreas; Meinke, Matthias; Schröder, Wolfgang - "Fluid mechanics based classification of the respiratory efficiency of several nasal cavities" - Computers in biology and medicine - vol 43 no 11 content/page 1833-1852 - [doi:10.1016/j.compbiomed.2013.09.003](https://doi.org/10.1016/j.compbiomed.2013.09.003)

Konopka, Martin; Meinke, Matthias; Schröder, Wolfgang - "Large-eddy simulation of shock-cooling-film interaction at helium and hydrogen injection" - Physics of fluids - vol 25 no 10 content/page 106101 - [doi:10.1063/1.4823745](https://doi.org/10.1063/1.4823745)

Konopka, Martin; Jessen, Wilhelm; Meinke, Matthias; Schröder, Wolfgang - "Large-Eddy Simulation of Film Cooling in an Adverse Pressure Gradient Flow" - Journal of turbomachinery - vol 135 no 3 content/page 031031 - [doi:10.1115/1.4007583](https://doi.org/10.1115/1.4007583)

Meinke, Matthias; Schneiders, Lennart; Günther, Claudia; Schröder, Wolfgang - "A cut-cell method for sharp moving boundaries in Cartesian grids" - Computers & fluids - vol 85 no SI content/page 135-142 - [doi:10.1016/j.compfluid.2012.11.010](https://doi.org/10.1016/j.compfluid.2012.11.010)

Roidl, Benedikt; Meinke, Matthias; Schröder, Wolfgang - "A reformulated synthetic turbulence generation method for a zonal RANS-LES method and its application to zero-pressure gradient boundary layers" - The international journal of heat and fluid flow - vol 44 content/page 28-40 - [doi:10.1016/j.ijheatfluidflow.2013.03.017](https://doi.org/10.1016/j.ijheatfluidflow.2013.03.017)

Kunnen, R. P. J.; Siewert, C.; Meinke, Matthias; Schröder, Wolfgang; Beheng, K. D. - "Numerically determined geometric collision kernels in spatially evolving isotropic turbulence relevant for droplets in clouds" - Atmospheric research - vol 127 content/page 8-21 - [doi:10.1016/j.atmosres.2013.02.003](https://doi.org/10.1016/j.atmosres.2013.02.003)

Schneiders, Lennart; Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "An accurate moving boundary formulation in cut-cell methods" - Journal of computational physics - vol 235 content/page 786-809 - [doi:10.1016/j.jcp.2012.09.038](https://doi.org/10.1016/j.jcp.2012.09.038)

Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Impact of multi-species gas injection on trailing-edge noise" - Computers & fluids - vol 75 content/page 72-85 - [doi:10.1016/j.compfluid.2013.01.016](https://doi.org/10.1016/j.compfluid.2013.01.016)

Eitel-Amor, G.; Meinke, Matthias; Schröder, Wolfgang - "A lattice-Boltzmann method with hierarchically refined meshes" - Computers & fluids - vol 75 content/page 127-139 - [doi:10.1016/j.compfluid.2013.01.013](https://doi.org/10.1016/j.compfluid.2013.01.013)

## 2012

Konopka, Martin; Meinke, Matthias; Schröder, Wolfgang - "Large-Eddy Simulation of Shock/Cooling-Film Interaction" - AIAA journal - vol 50 no 10 content/page 2102-2114 - [doi:10.2514/1.j051405](https://doi.org/10.2514/1.j051405)

Roidl, B.; Meinke, Matthias; Schröder, Wolfgang - "A zonal RANS-LES method for compressible flows" - Computers & fluids - vol 67 content/page 1-15 - [doi:10.1016/j.compfluid.2012.07.003](https://doi.org/10.1016/j.compfluid.2012.07.003)

## 2011

Freitas, Rainhill K.; Henze, Andreas; Meinke, Matthias; Schröder, Wolfgang - "Analysis of Lattice-Boltzmann methods for internal flows" - Computers & fluids - vol 47 no 1 content/page 115-121 - [doi:10.1016/j.compfluid.2011.02.019](https://doi.org/10.1016/j.compfluid.2011.02.019)

Klumpp, Stephan Werner; Meinke, Matthias; Schröder, Wolfgang - "Friction Drag Variation via Spanwise Transversal Surface Waves" - Flow, turbulence and combustion - vol 87 no 1 content/page 33-53 - [doi:10.1007/s10494-011-9326-3](https://doi.org/10.1007/s10494-011-9326-3)

Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "A level-set based adaptive-grid method for premixed combustion" - Combustion and flame - vol 158 no 7 content/page 1318-1339 - [doi:10.1016/j.combustflame.2010.11.007](https://doi.org/10.1016/j.combustflame.2010.11.007)

Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "A strictly conservative Cartesian cut-cell method for compressible viscous flows on adaptive grids" - Computer methods in applied mechanics and engineering - vol 200 no 9/12 content/page 1038-1052 - [doi:10.1016/j.cma.2010.05.015](https://doi.org/10.1016/j.cma.2010.05.015)

## 2010

Winnemöller, Tobias; Meinke, Matthias; Schröder, Wolfgang - "Turbulent Mixing in an Accelerated Nozzle Flow" - The international journal of heat and fluid flow - vol 31 no 3 content/page 342-350 - [doi:10.1016/j.ijheatfluidflow.2010.02.022](https://doi.org/10.1016/j.ijheatfluidflow.2010.02.022)

Klumpp, Stephan Werner; Meinke, Matthias; Schröder, Wolfgang - "Drag reduction by spanwise transversal surface waves" -

Journal of turbulence - vol 11 no 22 content/page 13 S. - [doi:10.1080/14685248.2010.494606](https://doi.org/10.1080/14685248.2010.494606)

Klumpp, Stephan Werner; Meinke, Matthias; Schröder, Wolfgang - "Numerical simulation of riblet controlled spatial transition in a zero-pressure gradient boundary layer" - Flow, turbulence and combustion - vol 85 no 1 content/page 57-71 - [doi:10.1007/s10494-010-9251-x](https://doi.org/10.1007/s10494-010-9251-x)

Hörschler, Ingolf; Schröder, Wolfgang; Meinke, Matthias - "On the Assumption of steadiness of Nasal Cavity Flow" - Journal of biomechanics - vol 43 no 6 content/page 1081-1085 - [doi:10.1016/j.jbiomech.2009.12.008](https://doi.org/10.1016/j.jbiomech.2009.12.008)

Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Turbulence and heat excited noise sources in single and coaxial jets" - Journal of sound and vibration : JSV - vol 329 no 7 content/page 786-803 - [doi:10.1016/j.jsv.2009.10.012](https://doi.org/10.1016/j.jsv.2009.10.012)

König, Daniel; Meinke, Matthias; Schröder, Wolfgang - "Embedded LES-to-RANS boundary in zonal simulations" - Journal of turbulence - vol 7 no 11 content/page 1-25 - [doi:10.1080/14685241003698159](https://doi.org/10.1080/14685241003698159)

Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "On accuracy and efficiency of constrained reinitialization" - International journal for numerical methods in fluids - vol 63 no 11 content/page 1347-1358 - [doi:10.1002/flid.2135](https://doi.org/10.1002/flid.2135)

König, Daniel; Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Two-step simulation of slat noise" - Computers & fluids - vol 39 no Issue 3 content/page 512-524 - [doi:10.1016/j.compfluid.2009.10.004](https://doi.org/10.1016/j.compfluid.2009.10.004)

Hartmann, Daniel; Schröder, Wolfgang; Meinke, Matthias - "The Constrained Reinitialization Equation for Level Set Methods" - Journal of computational physics - vol 229 no 5 content/page 1514-1535 - [doi:10.1016/j.jcp.2009.10.042](https://doi.org/10.1016/j.jcp.2009.10.042)

Zhang, Qinyin; Schröder, Wolfgang; Meinke, Matthias - "A zonal RANS-LES method to determine the flow over a high-lift configuration" - Computers & fluids - vol 39 no 7 content/page 1241-1253 - [doi:10.1016/j.compfluid.2010.02.006](https://doi.org/10.1016/j.compfluid.2010.02.006)

Koh, Seong Ryong; Schröder, Wolfgang; Meinke, Matthias - "Numerical study of noise reduction via wall turbulence control" - AIAA meeting papers on disc - vol [15.]2010 no 5

Klumpp, Stephan Werner; Guldner, Th.; Meinke, Matthias; Schröder, Wolfgang - "Riblets in a turbulent adverse-pressure gradient boundary layer" - AIAA meeting papers on disc - vol [15.]2010 no 6

Klumpp, Stephan Werner; Meinke, Matthias; Schröder, Wolfgang - "Drag reduction in a turbulent boundary layer by spanwise transversal surface waves" - AIAA meeting papers on disc - vol [15.]2010 no 6

Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "An Adaptive Dual-Mesh Method for Premixed Combustion Using the Level-Set Approach" - AIAA meeting papers on disc - vol [15.]2010 no 1 content/page 29 S.

## 2009

Mosges, R.; Meinke, Matthias; Lintermann, Andreas; Henkel, K.; Wein, Berthold B. - "3D-visualization Of The Nasal Flow After Allergen Challenge And The Effect Of Mometasone Furoate Nasal Spray (MFNS)" - The journal of allergy and clinical immunology - vol 123 no Suppl. 2 content/page 512, 135-135 - [doi:10.1016/j.jaci.2008.12.499](https://doi.org/10.1016/j.jaci.2008.12.499)

Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "A General Formulation of Boundary Conditions on Cartesian Cut-Cells for Compressible Viscous Flow" - AIAA meeting papers on disc - vol [14.]2009 no 7 content/page 1-10

Koh, Seong Ryong; Schröder, Wolfgang; Meinke, Matthias - "Sound Generation Control by Fluid Bleeding" - AIAA meeting papers on disc - vol [14.]2009 no 6 content/page 13 S.

Winnemöller, Tobias; Meinke, Matthias; Schröder, Wolfgang - "Mixing in an Accelerated Nozzle Flow" - AIAA meeting papers on disc - vol [14.]2009 no 7 content/page 15 S.

Bui, Thanh Phong; Schröder, Wolfgang; Meinke, Matthias - "Acoustic refraction effects in turbulent reacting flows" - AIAA meeting papers on disc - vol [14.]2009 no 6 content/page 9 S.

## 2008

Mösger, R.; Meinke, Matthias; Wein, Berthold B.; Lintermann, Andreas; Henkel, K. - "3D-MRI-visualization of nasal allergen challenge with and without mometasone furoate nasal spray" - Allergy : European journal of allergy and clinical immunology - vol 63 no Suppl. s 88 content/page 1845 - [doi:10.1111/j.1398-9995.2008.01762.x](https://doi.org/10.1111/j.1398-9995.2008.01762.x)

Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "A multilevel formulation for Cartesian hierarchical grid methods with adaptive mesh refinement" - Computers & fluids - vol 37 no 9 content/page 1103-1125 - [doi:10.1016/j.compfluid.2007.06.007](https://doi.org/10.1016/j.compfluid.2007.06.007)

Alkishiwi, Nouri; Meinke, Matthias; Schröder, Wolfgang - "Large-eddy simulation of rotating turbulent channel flow" - Flow,

turbulence and combustion - vol 80.2008 no 1 content/page 119-132 - [doi:10.1007/s10494-007-9080-8](https://doi.org/10.1007/s10494-007-9080-8)

Bui, Thanh Phong; Schröder, Wolfgang; Meinke, Matthias - "Numerical analysis of the acoustic field of reacting flows via acoustic perturbation equations" - Computers & fluids - vol 37 no 9 content/page 1157-1169 - [doi:10.1016/j.compfluid.2007.10.014](https://doi.org/10.1016/j.compfluid.2007.10.014)

Gröschel, Elmar; Schröder, Wolfgang; Renze, Peter Clemens-August; Meinke, Matthias; Comte, Pierre - "Noise prediction for a turbulent jet using different hybrid methods" - Computers & fluids - vol 37 no 4 : special issue content/page 414-426 - [doi:10.1016/j.compfluid.2007.02.010](https://doi.org/10.1016/j.compfluid.2007.02.010)

Renze, Peter Clemens-August; Schröder, Wolfgang; Meinke, Matthias - "Large-eddy simulation of film cooling flows at density gradients" - The international journal of heat and fluid flow - vol 29 no 1 content/page 18-34 - [doi:10.1016/j.ijheatfluidflow.2007.07.010](https://doi.org/10.1016/j.ijheatfluidflow.2007.07.010)

Hörschler, Ingolf; Schröder, Wolfgang; Meinke, Matthias - "Numerical analysis of the impact of the nose geometry on the flow structure : Part II: Natural valve and lower turbine" - Computational fluid dynamics journal - vol 16 no 3 content/page 243-260

Hörschler, Ingolf; Schröder, Wolfgang; Meinke, Matthias - "Numerical analysis of the impact of the nose geometry on the flow structure : Part I: Septum spurs" - Computational fluid dynamics journal - vol 16 no 2 content/page 219-234

Hartmann, Daniel; Meinke, Matthias; Schröder, Wolfgang - "Differential equation based constrained reinitialization for level set methods" - Journal of computational physics - vol 227 no 14 content/page 6821-6845 - [doi:10.1016/j.jcp.2008.03.040](https://doi.org/10.1016/j.jcp.2008.03.040)

König, Daniel; Koh, Seong Ryong; Meinke, Matthias; Schröder, Wolfgang - "Slat Noise Source Identification" - AIAA meeting papers on disc - vol [13.]2008 no 4 content/page 17 S.

Bui, Thanh Phong; Ihme, Matthias; Meinke, Matthias; Schröder, Wolfgang; Pitsch, Heinz Günter - "Numerical applicability of different sound source formulations to compute combustion noise using acoustic perturbation equations for reacting flows" - AIAA meeting papers on disc - vol [13.]2008 no 5

## 2007

Bui, Thanh Phong; Schröder, Wolfgang; Meinke, Matthias - "Acoustic perturbation equations for reacting flows to compute combustion noise" - International journal of aeroacoustics - vol 6 no 4 content/page 335-355 - [doi:10.1260/147547207783359468](https://doi.org/10.1260/147547207783359468)

Renze, Peter Clemens-August; Schröder, Wolfgang; Meinke, Matthias - "LES of film cooling for different jet fluids" - Hangkong-dongli-xuebao : jikan = Journal of aerospace power - vol 22 no 4 content/page 521-530

Alkishiwi, Nouri; Schröder, Wolfgang; Meinke, Matthias - "Large-eddy simulation of streamwise-rotating turbulent channel flow" - Computers & fluids - vol 37 no 7 content/page 786-792 - [doi:10.1016/j.compfluid.2007.03.018](https://doi.org/10.1016/j.compfluid.2007.03.018)

Renze, Peter Clemens-August; Meinke, Matthias; Schröder, Wolfgang - "Hole shape comparison for film cooling flows using large-eddy simulations" - AIAA meeting papers on disc - vol 2007 no 1/5

Koh, Seong Ryong; Gröschel, Elmar; Meinke, Matthias; Schröder, Wolfgang - "Numerical analysis of sound sources in high Reynolds number single jets" - AIAA meeting papers on disc - vol [12.]2007 no 10-11

## 2006

Hörschler, Ingolf; Schröder, Wolfgang; Meinke, Matthias - "Comparison of steady and unsteady nasal cavity flow solutions for the complete respiration cycle" - Computational fluid dynamics journal - vol 15 no 3 content/page 354-377

Guo, Xiao; Schröder, Wolfgang; Meinke, Matthias - "Large-eddy simulations of film cooling flows" - Computers & fluids - vol 35 no 6 content/page 587-606 - [doi:10.1016/j.compfluid.2005.02.007](https://doi.org/10.1016/j.compfluid.2005.02.007)

Alkishiwi, Nouri; Meinke, Matthias; Schröder, Wolfgang - "A large-eddy simulation method for low Mach number flows using preconditioning and multigrid" - Computers & fluids - vol 35 no 10 content/page 1126-1136 - [doi:10.1016/j.compfluid.2005.06.002](https://doi.org/10.1016/j.compfluid.2005.06.002)

Hörschler, Ingolf; Brücker, Christoph; Schröder, Wolfgang; Meinke, Matthias - "Investigation of the impact of the geometry on the nose flow" - European journal of mechanics / B, Fluids - vol 25 no 4 content/page 471-490 - [doi:10.1016/j.euromechflu.2005.11.006](https://doi.org/10.1016/j.euromechflu.2005.11.006)

Alkishiwi, Nouri; Meinke, Matthias; Schröder, Wolfgang; Braun, Alexander; Pfeifer, Herbert - "Large-eddy simulations and particle-image velocimetry measurements of turbulent flow" - Steel research international - vol 77 no 8 content/page 565-575 - [doi://WQS:000240182900006](https://doi.org/10.1002/200600006)

Gröschel, Elmar; Schröder, Wolfgang; Meinke, Matthias - "Noise generation mechanisms in single and coaxial jets" - AIAA meeting papers on disc - vol [11.]2006 no 8/9



## 2005

Alkishriwi, Nouri; Meinke, Matthias; Schröder, Wolfgang - "Preconditioned large-eddy simulations for turbulent flows" - The international journal of heat and fluid flow - vol 27.2006 no 4

Rütten, Frank; Schröder, Wolfgang; Meinke, Matthias - "Large-eddy simulation of low frequency oscillations of the Dean vortices in turbulent pipe bend flows" - Physics of fluids - vol 17 no 3 content/page 035107 - [doi:10.1063/1.1852573](https://doi.org/10.1063/1.1852573)

Gröschel, Elmar; Meinke, Matthias; Schröder, Wolfgang - "Noise prediction for a turbulent jet using an LES/CAA method" - AIAA meeting papers on disc - vol [10.]2005 no 10

## 2003

El-Askary, Wageeh Ahmed Abd-El-Fattah; Meinke, Matthias; Schröder, Wolfgang - "Large eddy simulation of a compressible boundary layer" - Proceedings in applied mathematics and mechanics : PAMM - vol 2 no 1 content/page 304-305 - [doi:10.1002/pamm.200310136](https://doi.org/10.1002/pamm.200310136)

Gerndt, Andreas; van Reimersdahl, Thomas; Kuhlen, Torsten; Bischof, Christian; Hörschler, Ingolf; Meinke, Matthias; Schröder, Wolfgang - "Large-scale CFD data handling in a VR-based otorhinolaryngological CAS-system using a Linux-Cluster" - The journal of supercomputing - vol 25 no 2 content/page 143-154 - [doi:10.1023/A:1023992511823](https://doi.org/10.1023/A:1023992511823)

Hörschler, Ingolf; Meinke, Matthias; Schröder, Wolfgang - "Numerical Simulation of the Flow Field in a Model of the Nasal Cavity" - Computers & fluids - vol 32 no 1 content/page 39-45 - [doi:10.1016/S0045-7930\(01\)00097-4](https://doi.org/10.1016/S0045-7930(01)00097-4)

Schröder, Wolfgang; Ewert, Roland; Meinke, Matthias - "A two-step LES/APE approach for airframe noise" - ERCOFTAC bulletin - vol 53

## 2002

Meinke, Matthias; Schröder, Wolfgang; Krause, Egon; Rister, Thomas - "A comparison of second- and sixth-order methods for large-eddy simulations" - Computers & fluids - vol 31 no Vol. 31 content/page 695-718 - [doi:10.1016/S0045-7930\(01\)00073-1](https://doi.org/10.1016/S0045-7930(01)00073-1)

Ewert, Roland; Schröder, Wolfgang; Meinke, Matthias; El-Askary, Wageeh Ahmed Abd-El-Fattah - "LES as a basis to determine sound emission" - AIAA papers - vol 2002 no 0001-2002,1143

## 2001

Rütten, Frank; Meinke, Matthias; Schröder, Wolfgang - "Large-eddy simulations of 90°-pipe bend flows" - Journal of turbulence - vol 2 no 1 content/page 003-003 - [doi:10.1088/1468-5248/2/1/003](https://doi.org/10.1088/1468-5248/2/1/003)

Schröder, Wolfgang; Meinke, Matthias; Schvorak, Alexander - "Large-eddy simulations of accelerated pipe flows" - Computational fluid dynamics journal - vol 10 no 1 content/page 96-118

## 2000

Ewert, Roland; Meinke, Matthias; Schröder, Wolfgang - "Aeroacoustics source terms for the linearized Euler equations" - AIAA paper - vol 2000 no 046

Thomer, Oliver; Schröder, Wolfgang; Meinke, Matthias - "Numerical simulation of normal and oblique shock vortex interaction" - GAMM 99 - vol 801999,1 no Suppl. 1 content/page 181-184 - [doi://WQS:000086621000046](https://doi.org/10.1007/978-3-319-00000-4_6)

Ewert, Roland; Opiela, Mario; Meinke, Matthias; Schröder, Wolfgang - "Computation of the aeroacoustic sound field generated by the turbulent flow behind a blunt trailing edge" - Computational fluid dynamics journal - vol 9 no 1

Fares, Ehab Mahmoud Aziz Mohamed; Meinke, Matthias; Schröder, Wolfgang - "A differential equation to determine the wall distance" - International journal for numerical methods in fluids - vol 34

Fares, Ehab Mahmoud Aziz Mohamed; Meinke, Matthias; Schröder, Wolfgang - "Numerical simulation of the interaction of wingtip vortices and engine jets in the near field" - AIAA paper - vol 2000 no 222

Ewert, Roland; Meinke, Matthias; Schröder, Wolfgang - "Comparison of numerical schemes applied to CAA problems" - Zeitschrift für angewandte Mathematik und Mechanik : ZAMM = Journal of applied mathematics and mechanics - vol 80 no Suppl. 1 content/page S605-S606 - [doi://WOS:000086621200015](https://doi.org/10.1002/zamm.2000015)

1996

Domröse, U.; Krause, E.; Meinke, Matthias - "Numerical simulation of laminar hypersonic shock-boundary layer interaction" - Zeitschrift für Flugwissenschaften und Weltraumforschung : ZFW = Journal of flight sciences and space research - vol 20 content/page 89-94

1993

Breuer, M.; Hänel, D.; Klöcker, J.; Meinke, Matthias - "Computation of unsteady vortical flows" - Computers & fluids - vol 22 no 2/3 content/page 229-237 - [doi:10.1016/0045-7930\(93\)90055-E](https://doi.org/10.1016/0045-7930(93)90055-E)

1989

Hänel, Dieter; Meinke, Matthias; Schröder, Wolfgang - "Multigrid Solutions for the Navier-Stokes Equations" - Notes on numerical fluid mechanics and multidisciplinary design - vol 25 content/page 176-190