

Dr. Susanne Horn

CURRENT WORK ADDRESS: Centre for Fluid and Complex Systems
Coventry University
Mile Lane
Coventry CV1 2NL, United Kingdom

EMAIL: susanne.horn@coventry.ac.uk



EMPLOYMENTS AND RESEARCH EXPERIENCE

COVENTRY UNIVERSITY, UNITED KINGDOM
Centre for Fluid and Complex Systems

Professor of Numerical and Mathematical Fluid Dynamics	AUG 2023–PRESENT
Associate Professor of Numerical and Mathematical Fluid Dynamics	AUG 2022–JUL 2023
Senior Lecturer in Numerical and Mathematical Fluid Dynamics	JUL 2019–JUL 2022

UNIVERSITY OF CALIFORNIA, LOS ANGELES, USA
Department of Earth, Planetary, and Space Sciences
Postdoctoral Scholar

OCT 2016–MAY 2019

IMPERIAL COLLEGE LONDON, UNITED KINGDOM
Department of Mathematics
Research Associate

SEP 2014–AUG 2016

MAX PLANCK INSTITUTE FOR DYNAMICS AND SELF-ORGANIZATION, GÖTTINGEN, GERMANY
Laboratory for Fluid Dynamics, Pattern Formation and Biocomplexity

Research Assistant	FEB 2014–AUG 2014
Guest Scientist	NOV 2013–JAN 2014

GERMAN AEROSPACE CENTER (DLR), GÖTTINGEN, GERMANY
Institute of Aerodynamics and Flow Technology

Research Assistant	JUL 2012–JAN 2014
Doctoral Researcher	OCT 2009–JUN 2012

ACADEMIC QUALIFICATIONS

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN, GERMANY

Doctoral studies in Physics	OCT 2009–SEP 2014
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Degree: **Dr. rer. nat. (PhD)**, Physics

Dissertation: *Rotation and non-Oberbeck–Boussinesq effects in turbulent Rayleigh–Bénard convection*

RUPRECHT-KARLS-UNIVERSITÄT HEIDELBERG, GERMANY

Graduate and undergraduate studies in Physics	OCT 2002–FEB 2009
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with minor in Astronomy and elective in General Relativity

Degree: **Dipl.-Phys. (MSc)**, Physics

Thesis: *Collimated Outflows from Young Stellar Objects*

GRANTS, FELLOWSHIPS, AND AWARDS

ERC Starting Grant (UKRI Horizon Europe guarantee) <i>MAGNADO—The Magnetohydrodynamics of Liquid Metal Tornadoes</i>	JAN 2023–DEC 2027
EPSRC New Investigator Award <i>Non-Oberbeck-Boussinesq Effects in the Ultimate State of Rapidly Rotating Rayleigh-Béard Convection</i>	SEP 2021–APR 2024
DFG Postdoctoral Research Fellowship <i>Rapidly rotating Rayleigh-Bénard convection in liquid metals</i>	JUN 2017– MAY 2019

RESEARCH INTERESTS AND EXPERTISE

planetary, geophysical, and astrophysical fluid dynamics, thermal convection, heat transfer, turbulence, magnetohydrodynamics, rotating flows, coherent structures, boundary layers, non-Oberbeck-Boussinesq effects, reduced-order modeling, mode decompositions, numerical methods, computational techniques

SUPERVISION

Ashna Aggarwal (2018–2022), PhD student at UCLA, co-supervised with Jonathan Aurnou, Dissertation: *Zonal Flows in Planetary Fluid Layers*
Yufan Xu (2019–2023), PhD student at UCLA, co-supervised with Jonathan Aurnou, Dissertation: *Forging Experimental Pathways to Planetary Core Convection*
Will Bloomer (2023–present), Postgraduate Researcher (PhD student)
Shahzad Sarwar (2021–present), Postdoctoral Fellow (EPSRC)
Declan Keogh (2024–present), Postdoctoral Fellow (ERC/UKRI)

TEACHING QUALIFICATIONS AND EXPERIENCE

FELLOW OF THE HIGHER EDUCATION ACADEMY (FHEA, ADVANCE HE)/ Postgraduate Certificate in Academic Practice in Higher Education	NOV 2021
COVENTRY UNIVERSITY, UK Undergraduate Final Year Project Supervisor Module Leader / Lecturer: <i>Mathematics for Computer Science</i> <i>Atomic and Molecular Physics</i> <i>Mathematics for Modern Physics and Numerical Analysis</i>	SEP 2020–DEC 2023 SEP 2019–JAN 2022 SEP 2021–JAN 2022 JAN 2020–MAY 2020
UNIVERSITY OF CALIFORNIA, LOS ANGELES, USA Co-Teaching: <i>Introduction to Planetary Dynamics</i>	MAR 2017–JUN 2017
GERMAN AEROSPACE CENTER (DLR), GÖTTINGEN, GERMANY Teaching Assistant: DNS/LES course	MAR–APR 2011, MAR 2012, MAR 2013
GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN, GERMANY Teaching Assistant: <i>Multidimensional Analysis for Physicists</i> <i>Thermodynamics and Statistical Mechanics</i> <i>Lab Course in Fluid Mechanics</i>	APR 2011–SEP 2011 OCT 2010–FEB 2011 APR 2010–SEP 2010

INVITED KEYNOTE LECTURES

- Large-Scale Circulation Modes in Turbulent Liquid Metal Convection* MAY 2023
Closing Workshop of DFG Priority Programme on Turbulent Superstructures SPP 1881,
Seeheim, Germany
- Flow Structures and Instabilities in Rotating Magneto-Convection of Liquid Metals* MAY 2018
Rotating Convection: From the Lab to the Stars, Lorentz Center,
Leiden, The Netherlands
- Coriolis-Centrifugal Convection and its Geophysical Relevance* MAY 2018
International Conference on Rayleigh-Bénard Turbulence,
Enschede, The Netherlands

INVITED TALKS AT MINI-SYMPOSIA AND CONFERENCES

- Multimodal Rotating Magnetoconvection in Liquid Metals* Nov 2023
76th Annual Meeting of the Division of Fluid Dynamics (APS DFD);
Minisymposium III: Low Prandtl Number Dynamics in Stellar and Planetary Interiors
Washington, DC., United States
- The Elbert Range of Turbulent Rotating Magnetoconvection* OCT 2023
9th International Conference on Rayleigh-Bénard Turbulence
Xi'an, China
- Insights into Planetary Core Convection using Idealised Numerical Simulations
and Laboratory Experiments in Liquid Metals* OCT 2022
Fluid Flow and Magnetic Field Generation in Fluids and Plasmas
– Theory and Laboratory Experiments
Leeds, United Kingdom
- Tornado-Like Vortices in the Quasi-Cyclostrophic Regime of
Coriolis-Centrifugal Convection* AUG 2021
XXXII IUPAP Conference on Computational Physics
Coventry, United Kingdom (online)
- Fourth-order finite volume scheme for the simulation of
rotating magnetoconvection at low magnetic Reynolds numbers* JUL 2021
International Conference on Spectral and High Order Methods (ICOSAHOM),
Vienna, Austria (online)
- Tornado-like Vortices in Coriolis-Centrifugal Convection* APR 2021
British Mathematical Colloquium - Applied Mathematics Colloquium (BMC - BAMC),
Glasgow, United Kingdom (online)

INVITED TALKS AT DEPARTMENTAL SEMINARS

- The Elbert Range of Turbulent Rotating Magnetoconvection* JUN 2023
Seminar, Mathematics Institute, University of Warwick, UK
- Tornado- and Hurricane-like Vortices in Coriolis-Centrifugal Convection* Nov 2022
Seminar, School of Engineering, University of Warwick, UK

<i>The Elbert Range of Magnetostrophic Convection</i> Seminar, Fluid Mechanics and Acoustics Laboratory, École centrale de Lyon, France	OCT 2022
<i>The Elbert Range of Magnetostrophic Convection</i> Seminar, Laboratoire National des Champs Magnétiques Intenses, CNRS, Grenoble, France	JUL 2022
<i>Tornado-like Vortices in Coriolis-Centrifugal Convection</i> Geophysical and Astrophysical Fluid Dynamics seminar, University of Exeter, UK	OCT 2021
<i>Multimodal rotating magnetoconvection in liquid metals</i> Colloquium, Macquarie University, Australia (online)	AUG 2021
<i>Rotating magnetoconvection in liquid metals: A window into planetary core turbulence</i> Fluids & MHD Seminar, University of Leeds, UK	FEB 2020
<i>Probing Planetary Core Turbulence via DNS of Liquid Metal Rotating Magnetoconvection</i> Fluids Seminar, Imperial College London, UK	JAN 2020
<i>Flow Structures in Low Prandtl Number Rotating Magneto-Convection</i> Seminar, HZDR, Dresden, Germany	APR 2019
<i>Tornado-like vortices in Coriolis-centrifugal convection</i> Seminar, Monash University, Australia	MAR 2019
<i>Tornado-like vortices in Coriolis-centrifugal convection</i> Seminar, The University of Melbourne, Australia	MAR 2019
<i>Formation of tornado-like vortices in Coriolis-centrifugal convection</i> Seminar, Technical University Ilmenau, Germany	JAN 2019
<i>Formation of tornado-like vortices in Coriolis-centrifugal convection</i> MPIDS Advances, MPI for Dynamics and Self-Organization, Göttingen, Germany	JAN 2019
<i>Tornado-like Vortices in Coriolis-Centrifugal Convection</i> Talk; Seminar at Atmospheric and Oceanic Sciences, UCLA; Los Angeles, USA	DEC 2018
<i>Tornado-like Vortices in Coriolis-Centrifugal Convection</i> Physics Colloquium, Occidental College, Los Angeles, USA	Nov 2018
<i>Transitions in rotating Rayleigh-Bénard convection</i> CRC 963 - AstroFIT Colloquium, University of Göttingen, Germany	FEB 2014
<i>Rotating Rayleigh-Bénard convection of SF₆ in a slender cylinder</i> Colloquium at Institute of Aerodynamics and Flow Technology, DLR, Göttingen, Germany	MAY 2013
<i>Numerical simulations of Rayleigh-Bénard convection beyond the classical case</i> Seminar, Faculty of Mathematics and Computer Science, University of Göttingen, Germany	JAN 2013
<i>Non-Oberbeck-Boussinesq effects in rotating Rayleigh-Bénard convection</i> Seminar, Eindhoven University of Technology, The Netherlands	SEP 2012
<i>Über den Einfluss temperaturabhängiger Stoffparameter bei Rayleigh-Bénard Konvektion in Flüssigkeiten</i> Colloquium at Institute of Aerodynamics and Flow Technology, DLR, Göttingen, Germany	JUN 2012
<i>Collimated Outflows from Young Stellar Objects</i> Talk; Colloquium at Institute of Aerodynamics and Flow Technology, DLR, Göttingen, Germany	FEB 2010

CONTRIBUTED TALKS AND POSTERS

- The Elbert Range of Turbulent Rotating Magnetoconvection* SEP 2023
Talk; European Turbulence Conference (ETC18); Valencia, Spain
- The Elbert Range of Turbulent Rotating Magnetoconvection* MAY 2023
Poster; UKMHD; Leeds, UK
- The Elbert Range of Magnetostrophic Convection* DEC 2022
Poster; AGU Fall Meeting; Chicago, USA
- The Elbert Subrange of Magnetostrophic Rotating Magnetoconvection* Nov 2019
Talk; 70th Annual Meeting of APS DFD; Seattle, USA
- Routes to turbulence in low Prandtl number rotating magnetoconvection* DEC 2018
Talk; AGU Fall Meeting; Washington, D.C., USA
- Temperature Distribution in Coriolis-Centrifugal Convection* Nov 2018
Talk; 71st Annual Meeting of APS DFD; Atlanta, USA
- Flow morphologies in low Prandtl number rotating magnetoconvection* SEP 2018
Talk; Waves, Turbulence, and Large-scale Structures in Rotating Magnetic Fluids: Above & Beyond Geophysical Fluid Dynamics, HAO; Boulder, USA
- Regimes of Coriolis-Centrifugal Convection* Nov 2017
Talk; 70th Annual Meeting of APS DFD; Denver, USA
- On the unique flow morphologies in rotating convection of liquid metals* Nov 2017
Poster; Fifty years after Roberts' MHD: Dynamos and planetary flows today; London, United Kingdom
- Identification of dominant flow structures in rapidly rotating convection of liquid metals using Dynamic Mode Decomposition* DEC 2016
Poster; AGU Fall Meeting; San Francisco, USA
- Identification of dominant flow structures in rapidly rotating convection of liquid metals using Dynamic Mode Decomposition* Nov 2016
Talk; 69th Annual Meeting of APS DFD; Portland, USA
- Numerical investigation of rotating turbulent convection* APR 2016
Talk; SuperMUC Status and Results Workshop; Garching, Germany
- Characterising turbulent Rayleigh-Bénard convection by means of the toroidal and poloidal energy* FEB 2014
Talk; Methods of characterizing turbulent convection: New perspectives; Münster, Germany
- Non-Oberbeck-Boussinesq effects in rotating turbulent Rayleigh-Bénard convection of water* SEP 2013
Talk; European Turbulence Conference (ETC14); Lyon, France
- Rotating Rayleigh-Bénard convection of SF_6 in a slender cylinder* APR 2013
Talk; Direct and Large-Eddy Simulation 9 (DLES9); Dresden, Germany
- Non-Oberbeck-Boussinesq effects in rotating Rayleigh-Bénard convection* DEC 2012
Talk; International Conference on Rayleigh-Bénard Turbulence, Hong Kong, China

- Rayleigh–Bénard convection in liquids with temperature-dependent material properties* AUG 2012
Talk; International Congress on Theoretical and Applied Mechanics (ICTAM); Beijing, China
- Rotating turbulent Rayleigh–Bénard convection in water* JUL 2012
Poster; European Postgraduate Fluid Dynamics Conference (EPFDC); London, United Kingdom
- Non-Oberbeck–Boussinesq effects in Rayleigh–Bénard convection of liquids* JUN 2012
Talk; 3rd International Conference on Turbulence and Interactions; La Saline-les-Bains, Réunion
- Non-Oberbeck–Boussinesq effects in rotating Rayleigh–Bénard convection* DEC 2011
Poster; AGU Fall Meeting; San Francisco, USA
- Non-Oberbeck–Boussinesq effects in rotating Rayleigh–Bénard convection* NOV 2011
Talk; 64th Annual Meeting of APS DFD; Baltimore, USA
- The influence of non-Oberbeck–Boussinesq effects on rotating turbulent Rayleigh–Bénard convection* SEP 2011
Talk; European Turbulence Conference (ETC13); Warsaw, Poland
- The Influence of Non-Oberbeck–Boussinesq Effects and Rotation on Turbulent Rayleigh–Bénard Convection* JUL 2011
Talk; Seventh International Symposium on Turbulence and Shear Flow Phenomena (TSFP-7); Ottawa, Canada
- Direct Numerical Simulation of non-Oberbeck–Boussinesq effects in turbulent Rayleigh–Bénard convection of water* NOV 2010
Talk; 16. DGLR-Fach-Symposium der STAB; Berlin, Germany
- Non-Oberbeck–Boussinesq effects in three-dimensional Rayleigh–Bénard convection* JUL 2010
Talk; Direct and Large-Eddy Simulation 8 (DLES8); Eindhoven, The Netherlands

SERVICE

MEMBER OF THE ORGANISING COMMITTEE

XXXII IUPAP Conference on Computational Physics 2021 in Coventry, United Kingdom
International Conference on Rayleigh–Bénard Turbulence 2015 in Göttingen, Germany
European Postgraduate Fluid Dynamics Conference (EPFDC) 2011 in Göttingen, Germany
DNS/LES course 2011, 2012 and 2013 at the DLR Göttingen, Germany

REVIEWER FOR FUNDING AGENCIES

European Commission - Marie Skłodowska-Curie Actions
European Commission - EuroHPC JU Call for Proposals for Extreme Scale access
German Research Foundation (DFG)
Natural Environment Research Council (NERC)
ETH Zurich Research Commission

REVIEWER FOR JOURNALS

Journal of Fluid Mechanics, Science Advances, Proceedings of the National Academy of Sciences, Physical Review Letters, Physical Review Fluids, Europhysics Letters, Physica D, Physics of the Earth and Planetary Interiors, Physical Review E, Physics of Fluids, Physics Letters A, International Journal of Thermal Sciences, International Journal of Heat and Mass Transfer, Geophysical Journal International

1. **HORN, S.** & AURNOU, J. M. 2024 The Elbert Range of Magnetostrophic Convection. II. Comparing Linear Predictions to Nonlinear DNS Submitted
2. XU, Y., **HORN, S.** & AURNOU, J.M. 2023 Transition from wall modes to multimodality in liquid gallium magnetoconvection. *Phys. Rev. Fluids* **8**, 103503
3. **HORN, S.** & AURNOU, J. M. 2022 The Elbert Range of Magnetostrophic Convection. I. Linear Theory. *Proc. Roy. Soc. A* **478** (2264), 20220313 **478**, 20220313
4. AGGARWAL, A., AURNOU, J. M. & **HORN, S.** 2022 Magnetic damping of jet flows in quasi-two-dimensional Rayleigh–Bénard convection. *Phys. Rev. E* **106**, 045104
5. **HORN, S.**, SCHMID, P.J. & AURNOU, J.M. 2022 Unravelling the large-scale circulation modes in turbulent Rayleigh–Bénard convection. *Europhys. Lett.* **136**, 14003
invited article for the focus issue of EPL on “Turbulent Thermal Convection”
6. GRANNAN, A. M., CHENG, J. S., AGGARWAL, A., HAWKINS, E. K., XU, Y., **HORN, S.**, SÁNCHEZ-ÁLVAREZ, J. & AURNOU, J. M. 2022 Experimental pub crawl from Rayleigh–Bénard to magnetostrophic convection. *J. Fluid Mech.* **939**, R1
featured in Focus on Fluids (JFM), written by Jörg Schumacher
7. AKASHI, M., YANAGISAWA, T., SAKURABA, A., SCHINDLER, F., **HORN, S.**, VOGT, T. & ECKERT, S. 2022 Jump rope vortex flow in liquid metal Rayleigh–Bénard convection in a cuboid container of aspect ratio five. *J. Fluid Mech.* **932**, A27
8. XU, Y., **HORN, S.** & AURNOU, J. M. 2022 Thermoelectric precession in turbulent magnetoconvection. *J. Fluid Mech.* **930**, A8
9. **HORN, S.** & AURNOU, J.M. 2021 Tornado-like vortices in the quasi-cyclostrophic regime of Coriolis-centrifugal convection. *J. Turbul.* **22** (4–5), 297–324
10. VOGT, T., **HORN, S.** & AURNOU, J.M. 2021 Oscillatory thermal–inertial flows in liquid metal rotating convection. *J. Fluid Mech.* **911**, A5
11. AURNOU, J. M., **HORN, S.** & JULIEN, K. 2020 Connections between non-rotating, slowly rotating, and rapidly rotating turbulent convection transport scalings. *Phys. Rev. Res.* **2**, 043115
12. ZHANG, X., VAN GILS, D.P.M., **HORN, S.**, WEDI, M., ZWIRNER, L., AHLERS, G., ECKE, R.E., WEISS, S., BODENSCHATZ, E. & SHISHKINA, O. 2020 Boundary Zonal Flow in Rotating Turbulent Rayleigh–Bénard Convection. *Phys. Rev. Lett.* **124** (8), 084505
13. **HORN, S.** & AURNOU, J.M. 2019 Rotating convection with centrifugal buoyancy: Numerical predictions for laboratory experiments. *Phys. Rev. Fluids* **4**, 073501
14. VOGT, T., **HORN, S.**, GRANNAN, A.M. & AURNOU, J.M. 2018 Jump Rope Vortex in Liquid Metal Convection. *Proc. Natl. Acad. Sci.* **115**, 12674–12679, co-first authorship
15. **HORN, S.** & AURNOU, J.M. 2018 Regimes of Coriolis-Centrifugal Convection. *Phys. Rev. Lett.* **120**, 204502
featured Focus article in the German Physik Journal, written by Stephan Stellmach
16. AURNOU, J.M., BERTIN, V., GRANNAN, A.M., **HORN, S.** & VOGT, T. 2018 Rotating thermal convection in liquid gallium: Multi-modal flow absent steady columns. *J. Fluid Mech.* **846**, 846–876
17. KOOIJ, G.L., BOTCHEV, M.A., FREDERIX E.M.A., GEURTS, B.J., **HORN, S.**, LOHSE, D., VAN DER POEL, E.P., SHISHKINA, O., STEVENS, R.J.A.M. & VERZICCO, R. 2018 Comparison of computational codes for direct numerical simulations of turbulent Rayleigh–Bénard convection. *Comp. & Fluids* **166**, 1–8
18. **HORN, S.** & SCHMID, P.J. 2017 Prograde, retrograde and oscillatory modes in rotating Rayleigh–Bénard convection. *J. Fluid Mech.* **831**, 182–211

19. SHISHKINA, O., **HORN, S.**, EMRAN, M.S. & CHING, E.S.C. 2017 Mean Temperature Profiles in Turbulent Thermal Convection. *Phys. Rev. Fluids* **2** (11), 113502
20. SHISHKINA, O. & **HORN, S.** 2016 Thermal convection in inclined cylindrical containers. *J. Fluid Mech.* **790**, R3
21. **HORN, S.** & SHISHKINA, O. 2015 Toroidal and poloidal energy in rotating Rayleigh–Bénard convection. *J. Fluid Mech.* **762**, 232–255
22. SHISHKINA, O., **HORN, S.**, WAGNER, S. & CHING, E.S.C. 2015 Thermal Boundary Layer Equation for Turbulent Rayleigh–Bénard Convection. *Phys. Rev. Lett.* **114** (11), 114302
23. **HORN, S.** & SHISHKINA, O. 2014 Rotating non-Oberbeck–Boussinesq Rayleigh–Bénard convection in water. *Phys. Fluids* **26**, 055111
featured article on the cover of Physics of Fluids
24. SHISHKINA, O., WAGNER, S. & **HORN, S.** 2014 Influence of the angle between the wind and the isothermal surfaces on the boundary layer structures in turbulent thermal convection. *Phys. Rev. E* **89** (3), 033014
selected for the Kaleidoscope of Phys. Rev. E, March 2014
25. **HORN, S.**, SHISHKINA, O. & WAGNER, C. 2013 On non-Oberbeck–Boussinesq effects in three-dimensional Rayleigh–Bénard convection in glycerol. *J. Fluid Mech.* **724**, 175–202
26. SHISHKINA, O., **HORN, S.** & WAGNER, S. 2013 Falkner–Skan boundary layer approximation in Rayleigh–Bénard convection. *J. Fluid Mech.* **730**, 442–463

OTHER REFEREED PUBLICATIONS

1. **HORN, S.**, WAGNER, S. & SHISHKINA, O. 2016 Natural thermal convection at high Rayleigh numbers. In *High Performance Computing in Science and Engineering*, pp. 134–135. Verlag der Bayerischen Akademie der Wissenschaften
2. **HORN, S.** & WAGNER, C. 2015 Rotating Rayleigh–Bénard convection of SF₆ in a slender cylinder. In *Direct and Large-Eddy Simulation IX*, pp. 353–359. Springer
3. **HORN, S.**, SHISHKINA, O. & WAGNER, C. 2014 Non-Oberbeck–Boussinesq effects in Rayleigh–Bénard convection of liquids. In *Turbulence and Interactions*, pp. 99–105. Springer Berlin Heidelberg
4. **HORN, S.**, SHISHKINA, O. & WAGNER, C. 2013 Direct Numerical Simulation of Non-Oberbeck–Boussinesq Effects in Turbulent Rayleigh–Bénard Convection of Water. In *New Results in Numerical and Experimental Fluid Mechanics VIII*, pp. 599–606. Springer Berlin Heidelberg
5. **HORN, S.**, KACZOROWSKI, M. & SHISHKINA, O. 2012 Direct Numerical Simulations of turbulent Rayleigh–Bénard convection. *inSiDE* **10**(2), 34–37
6. SHISHKINA, O., **HORN, S.** & KACZOROWSKI, M. 2012 Direct Numerical Simulations of turbulent Rayleigh–Bénard convection. In *High Performance Computing in Science and Engineering*, pp. 144–146. Verlag der Bayerischen Akademie der Wissenschaften
7. **HORN, S.**, SHISHKINA, O. & WAGNER, C. 2011 The influence of non-Oberbeck–Boussinesq effects on rotating turbulent Rayleigh–Bénard convection. *J. Phys.: Conf. Ser.* **318** (8), 082005
8. **HORN, S.**, SHISHKINA, O. & WAGNER, C. 2011 The Influence of Non-Oberbeck–Boussinesq Effects and Rotation on Turbulent Rayleigh–Bénard Convection. In *Proceedings of TSFP-7*
9. **HORN, S.**, SHISHKINA, O. & WAGNER, C. 2011 Non-Oberbeck–Boussinesq effects in three-dimensional Rayleigh–Bénard convection. In *Direct and Large-Eddy Simulation VIII, ERCOFTAC Series*, vol. 15, pp. 377–382. Springer Netherlands
10. BANERJEE, R., **HORN, S.** & KLESSEN, R.S. 2009 Jet Driven Turbulence? In *Protostellar Jets in Context*, pp. 421–427. Springer Berlin Heidelberg