

Dr. Simon Gant, CEng FIMechE

Contact Details

Health & Safety Executive (HSE) Science & Research Centre Harpur Hill Buxton SK17 9JN, UK	Phone: Email:	+44(0) 7855 121895 simon.gant@hse.gov.uk
---	------------------	--

Profile

I am currently the Strategic Science Adviser for Net Zero at HSE. My responsibility is to identify and prioritise knowledge gaps on Net Zero related to health and safety, and to develop a research strategy to ensure that these gaps are addressed, either through research undertaken by HSE or through us working with external partners. In addition to fulfilling the role of Strategic Science Adviser, I continue to be involved in technical delivery of HSE research in the field of fluid flow modelling and atmospheric dispersion. Over the last 19 years at HSE, I have led and overseen fluid dynamics analysis on a range of projects including incident investigations, support work on new guidance and standards, model reviews, government-funded research and consultancy for various companies. I led work using Computational Fluid Dynamics (CFD) to investigate the Buncefield Incident in 2005 and the fluid flow analysis at the Institute of Animal Health during the investigation into the foot-and-mouth outbreak in 2007. From 2010 to 2015, I was heavily involved in research aimed at assessing the risks posed by leaks from pipelines transporting dense-phase carbon dioxide (CO₂). I led HSL's involvement in a large CO₂ pipelines project sponsored by National Grid (COOLTRANS) and was heavily involved in an EU-sponsored CO₂ pipelines project (CO₂PipeHaz). During that time, I also led the CFD modelling work in a four year industry-sponsored project on flammable mists. In the period from 2014 – 2020, I led HSE's contribution to the Jack Rabbit II project, which involved analysis of large-scale chlorine release experiments undertaken at the US Army Dugway Proving Ground. This led to my further involvement in the ongoing Jack Rabbit III project, which is focused on large-scale anhydrous ammonia releases. The project is coordinated by the US Departments of Homeland Security and Defense. I am co-chairing the Jack Rabbit III modellers working group with Joe Chang (RAND Corporation) and together we are coordinating efforts of an international group of more than 20 expert modelling groups. I have also contributed to various UK hydrogen-safety research projects aimed at evaluating the use of the UK natural gas distribution network to distribute hydrogen (the HyDeploy and H21 projects). In 2019, I was elected as chair of the Atmospheric Dispersion Modelling Liaison Committee (www.admlc.com), which commissions small-scale research projects, hold seminars on topics of current interest, publishes guidance and works to bring together the UK dispersion modelling community.

Work Experience

2024 – Present	Band 1, Strategic Science Adviser for Net Zero, HSE
2021 – 2024	Band 1, Technical Fellow, Fluid Dynamics Team, HSE
2011 – 2021:	Band 2, Principal Scientist, Fluid Dynamics Team, HSL
2006 – 2011:	Band 3, Senior Scientist, Fluid Dynamics Team, HSL
2005 – 2006:	Band 4, Fluid Flow Modeller, Health and Safety Laboratory, Buxton
2016 – 2017:	Two month-long secondments working with Jeff Weil at the US National Center for Atmospheric Research (NCAR) in Boulder, Colorado
2015 – 2022:	Several week-long visits working at L'Institut National de l'Environnement Industriel et des Risques (INERIS), Verneuil-en-Halatte, France Participated in the PhD examination of two INERIS-sponsored students: Le Hong Duc in 2018 and Stéphanie El-Zahlanieh in 2022
2007:	Research Fellow for six months part time, undertaking research on marine current turbines, Joule Centre, Manchester University
1998 – 2004:	PhD Student, Research Assistant/Associate, Temporary Lecturer, Mech. Aero. Civil Eng. (MACE) School, Manchester University – inc. four-month post-doc at Université d'Aix-Marseille, France
1997 – 1998:	Building Services Design Engineer, Ove Arup & Partners, Manchester
1993 – 1997:	Sponsored Student, Ove Arup & Partners, London, Edinburgh, Italy, Manchester

Qualifications & Professional Membership

- Since 2019, Chair of the Atmospheric Dispersion Modelling Liaison Committee (ADMLC), a committee of dispersion modelling experts primarily from UK and Irish government agencies, including the Met Office, PHE, EA, SEPA, EPA, AWE, DSTL, FSA, HSE, ONR, EDF and RiskAware. We meet three times per year, commission research projects, publish research, host technical webinars and hold a public workshop/seminar every two years. For more information see: www.admlc.com.
- Chartered Engineer and Fellow of the Institute of Mechanical Engineers (CEng FIMechE)
- PhD in CFD and turbulence Modelling, MACE School, Manchester University, 2002
 - Thesis entitled: "Development and application of a new wall function for complex turbulent flows"
 - Presented with Sheila Mo Award for contribution to MACE School
- MEng (Distinction) in Mechanical Engineering, Leeds University, 1997
 - One year spent at Waterloo University, Ontario, Canada
 - Awarded IMechE Best Student Prize

Journal Peer Reviews

Since 2010, I have completed over 30 peer reviews for the following journals and conferences:

- Atmospheric Environment
- Boundary Layer Meteorology
- Chemical Engineering Science
- IChemE Hazards conference
- Fuel Journal
- International Journal of Environment and Pollution
- International Journal of Greenhouse Gas Control
- International Journal of Heat and Fluid Flow
- Journal of Loss Prevention in the Process Industries
- Journal of Wind Engineering and Industrial Aerodynamics
- Process Safety and Environmental Protection
- Safety Science
- International Pipeline Conference

Publications

Links to my published papers are provided on my website: www.gant.org.uk/research

Journal Papers

1. Gant S.E., Stavrakakis P., Slater D., Mounaim-Rouselle C. and Valera-Medina A., "Health and Safety Workshop Report from 2nd Symposium on Ammonia Energy", Journal of Ammonia Energy, Volume 2, Issue 1, 2024, <https://jae.cardiffuniversitypress.org/>
2. Slater D., Stavrakakis P., Gant S.E. and Valera-Medina A. "Health, Safety and Security Workshop report (2022)", Journal of Ammonia Energy, Volume 1, Issue 1, 4 July 2023, <https://jae.cardiffuniversitypress.org/>
3. Hanna S., Mazzola T., Chang J., Spicer T., Gant S.E. and Batt R. "Gaps in Toxic Industrial Chemical (TIC) model systems: improvements and changes over past ten years", Process Safety Progress, June 2021. <http://dx.doi.org/10.1002/prs.12289>
4. Hanna S., Tickle G., Mazzola T. and Gant S.E. "Dense gas plume rise and touchdown for Jack Rabbit II Trial 8 chlorine field experiment", Atmospheric Environment, p118551, 2021. <https://doi.org/10.1016/j.atmosenv.2021.118551>
5. Fox S., Hanna S., Mazzola T., Spicer T., Chang J. and Gant S.E. "Overview of Jack Rabbit II (JR II) field experiment and summary of the methods used in the dispersion model comparisons", Atmospheric Environment, p118783, 2021. <https://doi.org/10.1016/j.atmosenv.2021.118783>
6. Mazzola T., Hanna, S., Chang J., Bradley S., Meris R., Simpson S., Miner S., Gant S., Weil J., Harper M., Nikmo J., Kukkonen J., Lacombe J.-M. , Nibart M., Björnham O., Khajehnajafi S., Habib K., Armand P., Bauer T., Fabbri L., Spicer T., Ek N., "Results of comparisons of the predictions of 17 dense gas dispersion models with observations from the Jack Rabbit II chlorine field experiment", Atmospheric Environment, p117887, 2021. <https://doi.org/10.1016/j.atmosenv.2020.117887>
7. Gant S.E., Tickle G.T., Kelsey A. and Tucker H. "DRIFT Dispersion Model Predictions for the Jack Rabbit II Model Inter-Comparison Exercise", Atmospheric Environment, p117717, 2021. <https://doi.org/10.1016/j.atmosenv.2020.117717>
8. Gant S.E., Weil J., Delle Monache L., McKenna B., Garcia M.M., Tickle G., Tucker H., Stewart J., Kelsey A., McGillivray A., Batt R., Witlox H. and Wardman M. "Dense gas dispersion model development and testing for the Jack Rabbit II Phase 1 Chlorine Release Experiments", Atmospheric Environment, 192, p218-240, 2018. <https://doi.org/10.1016/j.atmosenv.2018.08.009>

9. Gant, S.E. and Tucker, H., "Computational Fluid Dynamics (CFD) modelling of atmospheric dispersion for land-use planning around major hazards sites in Great Britain", *Journal of Loss Prevention in the Process Industries*, 54, p340-345, 2018. <https://doi.org/10.1016/j.jlp.2018.03.015>
10. Batt, R., Gant, S.E., Lacombe, J.-M., Truchot, B. and Tucker, H., "CFD modelling of dispersion in neutrally and stably-stratified atmospheric boundary layers: results for Prairie Grass and Thorney Island", *International Journal of Environment and Pollution*, 63(1/2), p1-18, 2018. <https://doi.org/10.1504/IJEP.2018.093026>
11. Atkinson, G.T., Coldrick, S. Gant, S.E. and Cusco, L. "Flammable vapor cloud generation from overflowing tanks: learning the lessons from Buncefield", *Journal of Loss Prevention in the Process*, 35, p329-338, 2015. <http://dx.doi.org/10.1016/j.jlp.2014.11.011>
12. Woolley, R.M., Fairweather, M., Wareing, C.J., Falle, S.A.E.G., Mahgerefteh, H., Martynov, S., Brown, S., Narasimhamurthy, V.D., Storvik, I.E., Saelen, L., Skjold, T., Economou, I.G., Tsangaris, D.M., Boulougouris, G.C., Diamantonis, N., Cusco, L., Wardman, M., Gant, S.E., Wilday, J., Zhang, Y.C., Chen, S., Proust, C., Hebrard, J., Jamois, D. "CO₂PipeHaz: quantitative hazard assessment for next generation CO₂ pipelines", *Energy Procedia*, 63, p2510-2529, 2014. <http://dx.doi.org/10.1016/j.egypro.2014.11.274>
13. Gant, S.E., Narasimhamurthy, V.D., Skjold, T., Jamois, D. and Proust, C. "Evaluation of multi-phase atmospheric dispersion models for application to carbon capture and storage", *Journal of Loss Prevention in the Process Industries*, 32, p286-298, 2014. <http://dx.doi.org/10.1016/j.jlp.2014.09.014>
14. Lisbona D., McGillivray A., Saw J.L., Gant S.E., Bilio M. and Wardman M. "Risk assessment methodology for high-pressure CO₂ pipelines incorporating topography" *Process Safety and Environmental Protection Journal*, 92(1), p27-35, 2014. <https://doi.org/10.1016/j.psep.2013.09.003>
15. Gant S.E., Kelsey A., McNally K., Witlox H.W.M. and Bilio M. "Methodology for global sensitivity analysis of consequence models" *J. Loss Prev. Proc. Ind.*, 26, p792-802, 2013. <http://dx.doi.org/10.1016/j.jlp.2013.02.009>
16. Gant S.E. "Framework for validation of pipeline release and dispersion models for the COOLTRANS project", *Journal of Pipeline Engineering*, 11 (3), p201-212, 2012
17. Gant, S.E. and Kelsey, A. "Accounting for concentration fluctuations in gaseous releases of carbon dioxide", *J. Loss Prev. Proc. Ind.*, 25 (1), p52-59, 2012. <http://dx.doi.org/10.1016/j.jlp.2011.06.028>
18. Coldrick, S., Atkinson, G.T. and Gant, S.E. "Factors affecting vapour production in large scale evaporating liquid cascades", *Process Safety and Environmental Protection*, 89 (6), p371-381, 2011. <http://dx.doi.org/10.1016/j.psep.2011.07.004>
19. Gant, S.E. and Atkinson, G.T. "Dispersion of the vapour cloud in the Buncefield Incident", *Process Safety and Environmental Protection*, 89 (6), p391-403, 2011. <http://dx.doi.org/10.1016/j.psep.2011.06.018>
20. Gant, S.E., Pursell, M.R., Lea, C.J., Fletcher, J., Rattigan, W., Thyer, A.M., Connolly, S. "Flammability of hydrocarbon and carbon dioxide mixtures", *Process Safety and Environmental Protection*, 89 (6), p472-481, 2011. <http://dx.doi.org/10.1016/j.psep.2011.06.017>
21. Walsh, P.T., Gant S.E., Dowker, K.P. and Batt, R. "Response of electrochemical oxygen sensors to inert gas-air and carbon dioxide-air mixtures: measurements and mathematical modelling", *J. Haz. Mat.*, 186(1), p190-196, 2011. <http://dx.doi.org/10.1016/j.psep.2011.06.017>
22. Ivings, M.J., Gant S.E., Saunders, C.J. and Pocock, D.J. "Flammable gas cloud build up in a ventilated enclosure", *J. Haz. Mat.*, 184 (1-3), p170-176, 2010. <http://dx.doi.org/10.1016/j.jhazmat.2010.08.020>
23. Gant S.E. "Reliability issues of LES-related approaches in an industrial context", *Flow, Turbulence and Combustion*, 84(2), p325-335, 2010. <http://dx.doi.org/10.1007/s10494-009-9237-8>
24. Craft T.J., Gant S.E., Gerasimov A.V., Iacovides H., and Launder B.E. "Development and application of wall-function treatments for forced and mixed convection flows", *Fluid Dynamics Research*, 38 (2-3), p127-144, 2006. <http://dx.doi.org/10.1016/j.fluidyn.2004.11.002>
25. Craft T.J., Gant S.E., Iacovides H., and Launder B.E. "A new wall function strategy for complex turbulent flows", *Numerical Heat Transfer Part B: Fundamentals* Vol. 45, No. 4, p301-318, 2004. <http://dx.doi.org/10.1080/10407790490277931>

Conference Papers and Presentations

1. Gant S.E., Pearson A. and Sullivan E. "Review of ammonia incidents and update on ongoing research activities on ammonia safety", Harnessing history: safe design and operation of future energy systems, FABIG Technical Meeting, London, UK, 23-24 October 2024
2. Hetherington R., McGillivray A., Gant S. and Tickle G. "Analyzing ammonia dispersion under varying atmospheric conditions using DRIFT", 2024 Annual Safety in Ammonia Plants and Related Facilities Symposium, American Institute of Chemical Engineers (AIChE), 9-12 September 2024, San Diego, California, USA
3. Hetherington R., Gant S., Tickle G. and McGillivray A. "Recent research activities on ammonia at HSE Science Division", 28th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, Fairfax, Virginia, USA, 21-22 May 2023
4. Gant S., Allason D., Spicer T., Sullivan E., Chaplin Z., Halford A., Warhurst K., Acton M., Harper M., Stene J., Ferrara G. and Tickle G. "Dispersion modeling and determination of impact zones for CO₂ pipelines", 2024 API Pipeline Conference and Expo: Pipeline, Control Room and Cybernetics, American Petroleum Institute (API), Salt Lake City, Utah, USA, 4-6 May 2023
5. Gant S.E. "Dense gas dispersion", invited talk at the Atmospheric Dispersion and Air Quality (ADAQ) group, Met Office, Exeter, UK, 18 April 2024
6. Gant S.E. "Ammonia, CCUS and hydrogen safety: scientific research at the Health and Safety Executive", invited talk at the Department of Energy Security and Net Zero (DESNZ), London, UK, 12 April 2024
7. Gant S.E. and McCann R. "Hydrogen infrastructure in the UK: regulatory challenges and scientific knowledge gaps", Hydrogen Fuel Risks Part 2, EU Technical Working Group for Seveso Inspections (TWG 2) and OECD Working Party on Chemical Accidents webinar, 14 February 2023
8. Gant S.E. Chair's welcome at the ADMLC webinar on katabatic flows, 13 December 2023
9. Gant S.E. "Atmospheric dispersion projects at HSE and the ADMLC" ADMS 6 User Group Meeting, York, UK, 29 November 2023
10. Gant S.E. "Skylark CO₂ Dispersion Project - update" CCSA Health and Safety Task Subgroup meeting on CO₂ venting, 27 November 2023
11. Gant S.E. and Chaplin Z. "Carbon Capture Utilisation and Storage (CCUS): Knowledge gaps and ongoing UK activities", PHMSA Pipeline Safety Research and Development Forum 2023, Arlington, Virginia, USA, 31 October - 1 November 2023
12. Gant S.E. "Skylark CO₂ dispersion project", PHMSA Pipeline Safety Research and Development Forum 2023, Arlington, Virginia, USA, 31 October - 1 November 2023
13. Chaplin Z. and Gant S.E. "Hydrogen knowledge gaps, research and ongoing work in the UK", PHMSA Pipeline Safety Research and Development Forum 2023, Arlington, Virginia, USA, 31 October - 1 November 2023
14. Gant S.E. Chair's welcome at the ADMLC Seminar on dry deposition and surface chemical reactivity, UK Health Security Agency, Harwell, UK, 4 October 2023
15. Gant S.E., Halford A.R., Coldrick S., Allason D., Huescar Medina C., Hall J., Oxley R., Mallinder R., Travers N., Dalziel S.B., Linden P.F. "Purging hydrogen distribution pipelines: Literature review, description of recent experiments and proposed future work", International Conference on Hydrogen Safety (IHS), Quebec City, Canada, 19-21 September 2023
16. Gant S.E. "Hydrogen research", Hydrogen Fuel Risks Part 1, EU Technical Working Group for Seveso Inspections (TWG 2) and OECD Working Party on Chemical Accidents webinar, 15 September 2023
17. Gant S.E., Chaplin Z., Thomson M., Allason D., Halford A., Warhurst K., Acton M., Harper M., Stene J., Ferrara G., Miles J., Bragg S., Howard J., Turner M., Hort M., Beckett F., Spicer T., Lang J. and Sullivan E. "Carbon dioxide pipeline risk assessment: Plans for a programme of CO₂ dispersion experiments and model development", Carbon Capture and Storage Association (CCSA) Health and Safety Technical Working Group, London, UK, 31 August 2023

18. Gant S.E. "Health, Safety and Security Workshop", 2nd Symposium on Ammonia Energy, Université d'Orléans, France, 11-13 July 2023
19. Gant S.E. and Wayland M. "Carbon Capture and Storage (CCS): Scientific knowledge gaps and regulation", Regulating UK CCS deployment and experience to date and research needs, UKCCSRC webinar, 6 July 2023
20. Gant S.E. "Carbon dioxide pipelines: dispersion modeling challenges and tentative plans for a program of field scale experiments" 27th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 20-22 June 2023 <http://camp.cos.gmu.edu/>
21. Tickle G., Hetherington R., Gant S.E., McGillivray A. and Tucker H. "Effect of humidity on the dispersion behaviour of pressure-liquefied ammonia jet releases", 27th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 20-22 June 2023 <http://camp.cos.gmu.edu/>
22. Hetherington R., McGillivray A., Newton A. and Gant S.E. "Preliminary results for ammonia pipeline releases to assist in planning possible JR III trials", 27th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 20-22 June 2023 <http://camp.cos.gmu.edu/>
23. Hetherington R., Gant S.E. and McGillivray A. "Notional 2-ton pressurized anhydrous ammonia nurse tank release - discharge and dispersion modelling in Phast", 27th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 20-22 June 2023 <http://camp.cos.gmu.edu/>
24. Gant S.E., panel discussion in "International perspectives on CO₂ pipeline safety and dispersion modelling", PHMSA CO₂ Safety Public Meeting 2023, Des Moines, Iowa, USA, 31 May - 1 June 2023
25. Chaplin Z., Gant S.E., Bannister A., Maloney C., Stevens O., Sexty T., Wayland M. and Lloyd Davies S. "Knowledge gaps in the risk assessment of hydrogen and carbon dioxide pipelines", 18th Pipeline Technology Conference, Berlin, Germany, 8-11 May 2023
26. Gant S.E. Chair's welcome at the ADMLC Webinar on "Dense gas dispersion modelling in complex terrain, with a focus on carbon dioxide pipelines", hosted by the UK Health Security Agency, 7 March.
27. Gant S.E. "Ammonia as a future clean energy fuel: knowledge gaps and ongoing risk studies", Safety and Reliability Society (SaRS) Midland Branch evening talk, 31 January 2023.
28. Gant S.E. "Developments in National Infrastructure to meet Net Zero targets: Potential new major accident hazards and scientific knowledge gaps", Group of Experts in Mitigation Systems (GEMS) meeting, Royal School of Military Engineering, Blackwater, Surrey, UK, 25 January 2023.
29. Hanna S., Spicer T., Languirand E., Björnham O., Chang J., Dillon M., Gant S., Henn D., Hicks B., Lichiheb N., McMasters S., Meris R., Pleim J. and Seebaugh W.R. "Deposition and surface chemical reactivity of anhydrous ammonia from accidental releases", 25th Conference on Atmospheric Chemistry, 103rd American Meteorological Society (AMS) Annual Meeting, Denver, Colorado, 8-12 January 2023.
30. Gant S. "Hydrogen research initiatives, challenges and opportunities", US Pipelines and Hazardous Materials Safety Administration (PHMSA) Public Meeting, Houston, Texas, 14 Dec 2022.
31. Gant S., Chang J., Hetherington R., Mauri L. and Mackie S. "Jack Rabbit III project on ammonia dispersion modelling", FLACS User Group Meeting, 1 November 2022.
32. Gant S. "Hydrogen, ammonia and CCUS risks: Recent research findings and knowledge gaps", Challenges and issues arising from decarbonisation and the energy transition, 32nd Meeting of the OECD Working Party on Chemical Accidents, 25-27 October 2022.
33. Hanna S., Meris R., McMasters S., Chang J., Mazzola T., Spicer T. and Gant S. "Planning for Jack Rabbit III field experiment focussing on anhydrous ammonia" 21st International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Aveiro, Portugal, 27-30 September 2022 <http://harmo21.web.ua.pt/>
34. Chang J., Gant S., McMasters S., Jablonski R., Mearns H., Fox S., Meris R., Bradley S., Miner S., King M., Hanna S., Mazzola T., Spicer T., Hetherington R., McGillivray A., Kelsey A., Tucker H., Tickle G., Björnham O., Carissimo B., Fabbri L., Wood M., Habib K., Harper M., Hart F., Vik T., Helgeland A., Howard J., Bowman V., Silk D., Mauri L., Mackie S., Mack A., Lacombe J.-M., Puttick S., Ibrahim A., Miller D., Dharmavaram S., Shen A., Cunningham A., Beverley D., O'Neal M., Verdier L., Burkhart S. and Dixon C. "Summary of results from the Jack Rabbit III international model inter-comparison exercise on Desert

- Tortoise and FLADIS", 21st International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Aveiro, Portugal, 27-30 September 2022 <http://harmo21.web.ua.pt/>
35. Hetherington R., Tickle G., Bowman V., Silk D., Gant S., Kelsey A., McGillivray A. and Tucker H. "DRIFT modelling of the Desert Tortoise and FLADIS ammonia trials for the Jack Rabbit III model inter-comparison exercise", 21st International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Aveiro, Portugal, 27-30 September 2022 <http://harmo21.web.ua.pt/>
 36. McGillivray A., Harper M., Hart F., Puttick S., Ibrahim A., Verdier L., Gant S. and Hetherington R. "Phast modelling of the Desert Tortoise and FLADIS ammonia trials for the Jack Rabbit III model inter-comparison exercise", 21st International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Aveiro, Portugal, 27-30 September 2022 <http://harmo21.web.ua.pt/>
 37. Schaap S., Silk D., Bowman V., Howard J., Gant S., Hetherington R., Kelsey A. and Tickle G. "Calibrating ensemble predictions from the Jack Rabbit III international model inter-comparison exercise", 21st International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Aveiro, Portugal, 27-30 September 2022 <http://harmo21.web.ua.pt/>
 38. Gant S. "Research on anhydrous ammonia hazards at HSE and scientific knowledge gaps" Workshop on Health and Safety, First Symposium on Ammonia Energy, Cardiff University, UK, 2 September 2022, <https://www.ammoniasymposium2022.com/>
 39. Gant S.E., Hetherington R., Chang J., McMasters S., Jablonski R., Mearns H., Fox S., Meris R., Bradley S., Miner S., King M., Hanna S., Mazzola T., Spicer T., McGillivray A., Kelsey A., Tucker H. and Tickle G. "Design of the Jack Rabbit III international model inter-comparison exercise on Desert Tortoise and FLADIS", 26th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 26-28 July 2022 <http://camp.cos.gmu.edu/>
 40. Chang J., Gant S., McMasters S., Jablonski R., Mearns H., Fox S., Meris R., Bradley S., Miner S., King M., Hanna S., Mazzola T., Spicer T., Hetherington R., McGillivray A., Kelsey A., Tucker H., Tickle G., Björnham O., Carissimo B., Fabbri L., Wood M., Habib K., Harper M., Hart F., Vik T., Helgeland A., Howard J., Bowman V., Silk D., Mauri L., Mackie S., Mack A., Lacombe J.-M., Puttick S., Ibrahim A., Miller D., Dharmavaram S., Shen A., Cunningham A., Beverley D., O'Neal M., Verdier L., Burkhart S. and Dixon C. "Summary of results from the Jack Rabbit III international model inter-comparison exercise on Desert Tortoise and FLADIS", 26th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 26-28 July 2022 <http://camp.cos.gmu.edu/>
 41. Hetherington R., Tickle G., Bowman V., Silk D., Gant S., Kelsey A., McGillivray A. and Tucker H. "DRIFT modelling and sensitivity analysis of pressure-liquefied ammonia releases", 26th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 26-28 July 2022 <http://camp.cos.gmu.edu/>
 42. McGillivray A., Harper M., Hart F., Puttick S., Ibrahim A., Verdier L., Gant S. and Hetherington R. "Phast modelling of the Desert Tortoise and FLADIS ammonia trials for the Jack Rabbit III model inter-comparison exercise", 26th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 26-28 July 2022 <http://camp.cos.gmu.edu/>
 43. Schaap S., Silk D., Bowman V., Howard J., Gant S., Hetherington R., Kelsey A. and Tickle G. "Calibrating multi-model ensemble predictions from the Jack Rabbit III international model inter-comparison exercise", 26th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 26-28 July 2022 <http://camp.cos.gmu.edu/>
 44. Gant S.E. and Wardman M. "Use of ammonia in the maritime sector: possible future developments, knowledge gaps in atmospheric dispersion, and summary of recent risk studies", 26th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 26-28 July 2022 <http://camp.cos.gmu.edu/>
 45. Gant S.E. "Overview of previous CCUS research and remaining knowledge gaps", UKCCSRC Industry and policy led 'what are our research needs' workshop on Environmental impacts (including Health and Safety), Tuesday 1 February 2022.
 46. Gant S.E. and Bannister A. "UK perspectives on hydrogen and CO2 pipelines" PHMSA Pipeline Transportation and Emerging Fuels Research and Development Forum, 30 November - 2 December 2021
 47. El-Zahlanieh S., Santos I., Tostain H., Vignes A., Dufaud O. and Gant S. "Demystifying mist explosion hazards", IChemE Hazards 31 Symposium, 16-18 November 2021.

48. Chang J.C., Gant S.E., Meris R., McMasters S., Hanna S., Spicer T. and Mazzola T. "Jack Rabbit III Modelers Working Group: Initial model inter-comparison exercise for 2021-2022", 25th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 2-4 November 2021
49. Hanna S., Mazzola T., Tickle G. and Gant S.E. "Plume rise and touchdown during Jack Rabbit Trial 8", 25th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 2-4 November 2021
50. Gant S.E. "Recent work and future plans of the Atmospheric Dispersion Modelling Liaison Committee (ADMLC)", 25th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 2-4 November 2021
51. Bannister A., Chaplin Z., Gant S.E., Spriggs C. and Thomson N. "Approaches and methods to demonstrate repurposing of the UK's Local Transmission System (LTS) for transporting hydrogen" International Conference on Hydrogen Safety, 21-24 September 2021
52. Garrison A. and Gant S.E. "Investigation into the change in leakage when switching from natural gas to hydrogen in the UK gas distribution network" International Conference on Hydrogen Safety, 21-24 September 2021
53. Isaac T., Mahmood S., Madgett A., Hooker P., Torrado D., Pursell M., Gant S.E., Kelsey A. and Lander D. "Evidence base utilised to justify a hydrogen blend gas network safety case" International Conference on Hydrogen Safety, 21-24 September 2021
54. Gant S.E., Halford A., Atkinson G., Torrado D., Hooker P., Garrison A., Kelsey A., Spriggs C., Isaac T. and Oxley R. "Preliminary analysis of gas release and dispersion behaviour relevant to the use of hydrogen in the natural gas distribution network" FABIG lunchtime webinar, Wednesday 23 June 2021
55. Gant S.E., Batt R., Herring S., Tucker H., Nibart M., Moussafir J., Habib K., Glynn K., Tan F., Armand P., Price C., Carruthers D., Trini Castelli S., Venetsanos A., Harper M., Carissimo B., Vik T., Helgeland A., Karpinnen A., Bjørnham O., van Wingerden K., Mauri L., Tickle G., Lacomme J.-M., Truchot B., Brunold C., Fabbri L., Mack A., Spruijt M., Witham C., Leadbetter S., Stewart-Evans J., Kooi E., Wolting B., Dixon C., Puttick S., Zevenbergen J., Laboureur D. and Buckingham S. "Identification of knowledge gaps for future testing in Jack Rabbit III: a European perspective", 24th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 8-10 December 2020
56. Gant S.E. "Flammable mists from high flashpoint fluids", Safety and Reliability Society (SaRS) Midland Branch evening talk, DNV GL Loughborough, UK, 17 March 2020 - rescheduled online on 3 Nov 2020
57. Gant S.E., Giles A., Bettis R. and Bowen P. "Flammable mist hazards involving high-flashpoint fluids" 2020 Mary Kay O'Connor Process Safety Symposium, Virtual Symposium from Texas A&M University, 20-21 October 2020
58. Gant S.E. "Overview of research on Carbon Capture, Utilisation and Storage (CCUS) at HSE Science and Research Centre" CCSA Technical Working Group Meeting, 12 August 2020
59. Gant S.E. "Overview of HSE's approach to dispersion modeling of major accident hazards in Great Britain" Refineries and Chemical Industry Emissions Symposium, UC Davis, California, USA, 6-8 November 2019.
60. Gant S.E. "Hydrogen safety research: Gas transmission, distribution and storage", Hydrogen - Energy Transition Workshop, Energy Institute, 8 October 2019.
61. McEwen S., Rutherford J., Gant S.E. and Chaplin Z. "Carbon Capture, Utilization and Storage (CCUS): Policy Perspectives and Science", Carbon Capture, Use and Storage - Energy Transition Workshop, Energy Institute, 7 October 2019.
62. Hanna S, Chang J., Mazzola T., Bradley S., Meris R., Simpson S., Miner S., Gant S., Weil J., Harper M., Nikmo J., Kukkonen J., Lacomme J.M., Nibart M., Bjørnham O., Khajehnajafi S., Habib K., Armand P., Bauer T., Fabbri L., Spicer T. and Ek N. "Results of comparisons of the predictions of 17 dense gas dispersion models with observations from the Jack Rabbit II chlorine field experiment" 37th International Technical Meeting on Air Pollution Modelling and its Applications (ITM 2019), Hamburg, Germany, 23-27 September 2019.
63. Stewart J. and Gant S.E. "A review of the Q9 Equivalent Cloud Method for Explosion Modelling" 61st UK Explosion Liaison Group (UKELG) Discussion Meeting on Explosion Risk Management: Challenges and Progress, Imperial College, London, UK, 26 June 2019.

64. Gant S.E., Tickle G., Kelsey A. and Tucker H. "DRIFT dispersion model predictions for the Jack Rabbit II model inter-comparison exercise" 19th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (Harmo-19), Bruges, Belgium, 3 - 6 June 2019.
65. Hort M., Gant S.E., Smith J., Bedwell P., Haywood S., Tong S., Stewart-Evans J., Finnie T., Casey S., Delaney K., Herring S., Marnane I., McDonald A., Parkes D., Scott S., Smith K., Streeter S., Timmis R., Thomas C., Tucker H., and Witham C. "Atmospheric dispersion knowledge gaps and research priorities: results from a recent survey of ADMLC members" 19th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (Harmo-19), Bruges, Belgium, 3 - 6 June 2019.
66. Lees P., Gant S.E., Bettis R., Vignes A., Lacombe J.-L. and Dufaud O. "Review of recent incidents involving flammable mists" IChemE Hazards 29 Conference, Birmingham, UK, 22-24 May 2019.
67. Gant S.E. "Jack Rabbit II Chlorine Release Experiments and Modelling", Safety and Reliability Society, Midland Branch, Loughborough, UK, 12 February 2019
68. Gant S.E., Kelsey A., Tucker H., Wardman M. and Tickle G. "DRIFT Results for the Jack Rabbit II Coordinated Model Inter-Comparison Exercise" 22st Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, Fairfax, Virginia, USA, 19-21 June 2018.
69. Chang J., Gant S.E. and Hanna S. "First Look of 2015 and 2016 Jack Rabbit II Concentration Data" 22st Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, Fairfax, Virginia, USA, 19-21 June 2018.
70. Gant S.E. "Jack Rabbit II chlorine dispersion modelling and other recent work at HSL", Group of Experts on Mitigation Systems (GEMS) 19th Annual Meeting, Defence Academy of the United Kingdom, Shrivenham, 1 February 2018.
71. Gant S.E. and Tucker H., "Computational Fluid Dynamics (CFD) modelling of atmospheric dispersion for land-use planning around major hazards sites in the UK", 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (Harmo-18), Bologna, Italy, 9-12 October 2017
72. McKenna B., Garcia M.M., Gant S.E., McGillivray A., Batt R., Wardman M., Tucker H., Tickle G. and Witlox, H.W.M. "Jack Rabbit II 2015 chlorine release experiments: simulations of the trials using Drift and Phast and comparisons against preliminary experimental data", 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (Harmo-18), Bologna, Italy, 9-12 October 2017
73. Gant S.E. and Tucker H. (2017) "CFD results for near-field dispersion in Jack Rabbit II", 21st Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, Fairfax, Virginia, USA, 13-15 June 2017
74. Gant S.E., McKenna B., Garcia M.M., Stewart J., McGillivray A., Wardman M., Tucker H., Tickle G. and Witlox H.W.M. (2017) "Integral model predictions of the Jack Rabbit II 2015 experiments using DRIFT and PHAST", 21st Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, Fairfax, Virginia, USA, 13-15 June 2017
75. Gant S.E., Tucker H., McKenna B., Garcia M.M., McGillivray A., Batt R., Stewart J., Tickle G. and Witlox H.W.M. (2017) "Dispersion model predictions of the Jack Rabbit II chlorine release experiments", 10th Euro Chlor International Chlorine Technology Conference & Exhibition, Berlin, Germany, 16-18 May 2017
76. McKenna B., Garcia M.M., Gant S.E., McGillivray A., Batt R., Wardman M., Tucker H., Tickle G. and Witlox H.W.M. (2017) "Jack Rabbit II 2015 trials: preliminary comparison of the experimental results against Drift and Phast dispersion model predictions", IChemE Hazards 27 Conference, Birmingham, UK, 10-12 May 2017
77. Kelsey A. and Gant S.E. "Sensitivity and uncertainty analysis of consequence models", FABIG UK Technical Meeting: New Insights into Risk Assessment, Aberdeen and London, UK, 30 November - 1 December 2016
78. Gant S.E. "Review of recent LNG research at HSL and possible future R&D topics", PHMSA Pipeline Safety Research and Development Forum, Cleveland, Ohio, USA, 16-17 November 2016
79. Gant S.E., Atkinson G.T. and Tucker H. "Dispersion behavior in severe vapor cloud explosion incidents", 20th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, Fairfax, Virginia, USA, 14-16 June 2016

80. McKenna B., Garcia M.M., Gant S.E., Tucker H., Tickle G., Batt R., Witlox H.W.M. and Stene J. "Integral model predictions of chlorine dispersion for the proposed Jack Rabbit II experiments in 2016", 20th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, Fairfax, Virginia, USA, 14-16 June 2016
81. Batt R., Gant S.E., Lacombe J.-M. and Truchot B. "Modelling of stably-stratified atmospheric boundary layers with commercial CFD software for use in risk assessment", 15th International Symposium on Loss Prevention and Safety Promotion in the Process Industries (Loss Prevention 2016), Freiburg, Germany, 5-8 June 2016
82. Gant S.E. "Vapor Dispersion Model Evaluation Protocol (MEP) Update", Pipelines and Hazardous Materials Safety Administration (PHMSA) Public Workshop on Liquefied Natural Gas (LNG) Regulations, Washington DC, USA, 18-19 May 2016
83. Gant S.E., Coldrick S., Tickle G. and Tucker H. "Impact of alternative model validation methods: A case study on the LNG model validation database using Drift", 17th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (Harmo-17), Budapest, Hungary, 9-12 May 2016
84. Batt R., Gant S.E., Lacombe J.-M., Truchot B. and Tucker H. "CFD modelling of dispersion in neutral and stable atmospheric boundary layers: Results for Prairie Grass and Thorney Island", 17th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (Harmo-17), Budapest, Hungary, 9-12 May 2016
85. Gant S.E., Bettis R., Coldrick S. Burrell G., Santon R., Fullam B., Mouzakitis K., Giles A. and Bowen P. "Area classification of flammable mists; summary of joint-industry project findings", IChemE Hazards 26 Conference, Edinburgh, UK, 24-26 May 2016
86. Pursell M., Gant S.E., Newton A., Bennett D., O'Sullivan L., Hooker P. and Piper D. "Investigation of cargo tank vent fires on the GP3 FPSO, Part 1: Identification of ignition mechanisms and analysis of material ejected from the flare", IChemE Hazards 26 Conference, Edinburgh, UK, 24-26 May 2016
87. Gant S.E., Pursell M., Newton A., Bennett D. and O'Sullivan L. and Piper D. "Investigation of cargo tank vent fires on the GP3 FPSO, Part 2: Analysis of vapour dispersion", IChemE Hazards 26 Conference, Edinburgh, UK, 24-26 May 2016
88. McKenna B., Garcia M.M., Gant S.E., Batt R., Tucker H., Wardman M., Tickle G., Witlox H.W.M., Fernandez M., Harper M. and Stene J. "Dispersion model predictions of the Jack Rabbit II chlorine experiments using Drift and Phast", IChemE Hazards 26 Conference, Edinburgh, UK, 24-26 May 2016
89. Atkinson G., Betteridge S., Hall J., Hoyes J. and Gant S.E. "Experimental determination of the rate of flame spread across LNG pools", IChemE Hazards 26 Conference, Edinburgh, UK, 24-26 May 2016
90. Gant S.E., McKenna B., Garcia M., Batt R., Witlox H.W.M., Stene J., Fernandez M. and Tickle G. "Integral dispersion model predictions for the proposed Jack Rabbit II experiments", 19th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 9-10 June 2015, Fairfax, Virginia, USA
91. Woolley R.M., Fairweather M., Wareing C.J., Falle S.A.E.G., Mahgerefteh H., Martynov S., Brown S., Narasimhamurthy V.D., Storvik I.E., Saalen L., Skjold T., Economou I.G., Tsangaris D.M., Boulougouris, G.C., Diamantonis N., Cusco L., Wardman M., Gant S.E., Wilday J., Zhang Y.C., Chen S., Proust C., Hebrard J., Jamois D. "CO2PipeHaz: quantitative hazard assessment for next generation CO2 pipelines", International Conference on Greenhouse Gas Technologies (GHGT-12), Austin, Texas, USA, 6-9 October 2014
92. Betteridge, S., Hoyes, J., Gant S.E. and Ivings, M. "Consequence Modelling of Large LNG Pool Fires on Water", Submitted to the IChemE Hazards 24 Conference, Edinburgh, UK, 7-9 May 2014
93. Kelsey A., Gant S.E., McNally K., and Betteridge S. "Application of global sensitivity analysis to FDS simulations of large LNG fire plumes", Submitted to the IChemE Hazards 24 Conference, Edinburgh, UK, 7-9 May 2014
94. Atkinson G.T., Coldrick S., Gant S.E. and Cusco L. "Flammable vapour cloud generation from overfilling tanks: learning the lessons from Buncefield", Mary Kay O'Connor Process Safety Center International Symposium, College Station, Texas, USA, 22-24 October 2013

95. Kelsey A., Gant S.E., McNally K., and Betteridge S. "Application of global sensitivity analysis to FDS simulations of large LNG fire plumes" EDF-ERCOFTAC Workshop on Uncertainty Quantification in Computational Fluid Dynamics, Lyon, France, 17 June 2013
96. Mahgerefteh, H., Martynov, S., Brown, S., Fairweather, M., Woolley, R., Falle, S., Narasimhamurthy, V., Taraldset, O.J., Skjold, T., Economou, I., Tsangaris, D., Cusco, L., Wardman, M., Gant, S., Wilday, J., Zhang, Y.C., Chen, S., Proust, C. "CO2PipeHaz: quantitative hazard assessment for next generation CO2 pipelines", Fourth International Forum on the Transportation of CO2 by Pipeline, Newcastle, UK, 19-20 June 2013.
97. Gant, S.E., Kelsey, A., McNally, K. Witlox, H. and Bilio, M. "Sensitivity analysis of dispersion models for jet releases of dense-phase carbon dioxide", submitted to Loss Prevention 2013 conference, Florence, Italy, 12-15 May 2013
98. Dixon C.M., Gant S.E., Obiorah C. and Bilio M. "Validation of dispersion models for high pressure carbon dioxide releases" IChemE Hazards XXIII Conference, Southport, UK, 12-15 November 2012.
99. Gant S.E., Bettis R., Santon R., Buckland I., Bowen P. and Kay P. "Generation of flammable mists from high flashpoint fluids: Literature Review" IChemE Hazards XXIII Conference, Southport, UK, 12-15 November 2012.
100. Mahgerefteh H., Fairweather M., Falle S., Melheim J., Ichard M., Storvik I., Taraldset O.J., Skjold T., Economu I., Tsangaris D., Cusco L., Wardman M., Gant S.E., Wilday J., Zhang Y.C., Chen S., and Proust C. "CO2PIPEHAZ: Quantitative hazard assessment for next generation CO2 pipelines" Hazards XXIII, p606-610, 12-15 Nov 2012
101. Gant S.E. "Framework for validation of pipeline release and dispersion models for the COOLTRANS project", The Third International Forum on the Transportation of CO2 by Pipeline, 20-21 June 2012, Newcastle, UK
102. Gant, S.E. and Atkinson, G.T. "CFD for reconstruction of the Buncefield Incident", Dechema 50th Tutzing Conference, Tutzing, Germany, 22-25 May 2011
103. Lamont D., Bettis R., Fletcher J., Nicol A., Gant S. and Coldrick S. "Water spray barriers in tunnels under construction" World Tunnel Congress and 37th General Assembly, Helsinki, Finland, 20-26 May 2011
104. Coldrick, S., Atkinson, G.T. and Gant, S.E. "Large scale evaporating liquid cascades – an experimental and computational study", accepted for publication at the IChemE Hazards XXII Symposium & Workshop, Liverpool, UK, 11-14 April 2011
105. Pursell, M.R., Gant, S.E., Fletcher, J., Rattigan, W., Thyer, A.M., Connolly, S. "Flammability of hydrocarbon/CO2 mixtures: Part 1. Ignition and explosion characteristics", accepted for publication at the IChemE Hazards XXII Symposium & Workshop, Liverpool, UK, 11-14 April 2011
106. Gant, S.E., Pursell, M.R., Lea, C.J., Thyer, A.M., Connolly, S. "Flammability of hydrocarbon/CO2 mixtures: Part 2. Predictive models for gas jet ignition", accepted for publication at the IChemE Hazards XXII Symposium & Workshop, Liverpool, UK, 11-14 April 2011
107. Thyer, A. M., Kay, J., and Gant, S. E. "Investigations into the flammability of propane/carbon dioxide, hydrogen/carbon dioxide and hydrogen/nitrogen mixtures" Proc. IChemE Hazards XXI Symposium & Workshop, Manchester, UK, 10-12 November 2009
108. Atkinson G., Gant S.E., Painter D., Shirvill L. and Ungut A., "Liquid dispersal and vapour production during overfilling incidents" Proc. IChemE Hazards XX Symposium & Workshop, Manchester, UK, 15-17 April 2008. Also published in IChemE Loss Prevention Bulletin, June 2009
109. Gant S.E., "Practical quality measures for large-eddy simulation" ERCOFTAC Workshop on Direct and Large Eddy Simulation 7 (DLES7), Trieste, Italy, 8-10 September 2008
110. Gant S.E. and Stallard, T. "Modelling a tidal turbine in unsteady flow", ISOPE conference, Vancouver, Canada, 2008
111. Gant S.E., Ivings M.J., Jones A. and Santon R. "Hazardous area classification of low pressure natural gas systems using CFD predictions" Proc. IChemE Hazards XIX Symposium & Workshop, Manchester, UK, 27-30 March 2006

112. Craft T.J., Gant S.E. and Iacovides H. "Application of a generalised RANS wall function to recirculating flows with heat transfer", Fourth Int. Conf. on Computational Heat & Mass Transfer (ICCHMT), 17-20 May, Paris-Cachan, France, 2005
113. Craft T.J., Gant S.E., Gerasimov A.V., Iacovides H., and Launder B.E. "Advances in Practical Near-Wall Turbulence Modelling", Fourth European Thermal Sciences Conference, Birmingham, UK, 2004
114. Craft T.J., Gant S.E., Gerasimov A.V., Iacovides H., and Launder B.E. "Wall-function approaches for turbulent flow CFD" 6th ISHMT-ASME Heat and Mass Transfer Conference, Kalpakkam, Tamil Nadu, India, 5-7 January 2004
115. Craft T.J., Gant S.E., Gerasimov A.V., Iacovides H. and Launder B.E. "Wall Function Strategies for use in Turbulent Flow CFD", Proc. 12th International Heat Transfer Conference, Grenoble, France, 2002
116. Craft T.J., Gant S.E., Iacovides H., Launder B.E. and Robinson C.M.E. "Computational study of flow around the "Ahmed" car body (case 9.4)", 9th ERCOFTAC/IAHR/COST Workshop on Refined Turbulence Modelling, Darmstadt, Germany, 4-5 October 2001
117. Craft T.J., Gant S.E., Iacovides H. and Launder B.E. "Development and Application of a New Wall Function for Complex Turbulent Flows", ECCOMAS CFD2001 Conference, Swansea, Wales, UK, 4-7 September 2001

Journal Special Issues

1. Hanna S., Mazzola T., Chang J., Gant S. and Spicer T. (Eds.) "Comparisons of Widely-Used Dense Gas Dispersion Models using Observations from the 2015-2016 Jack Rabbit II Chlorine Release Experiments", Special Issue of the Atmospheric Environment journal, <https://www.sciencedirect.com/journal/atmospheric-environment/special-issue/10FRFPWRB27>

Book Chapters

1. Gant, S.E. and Atkinson, G.T. "CFD for reconstruction of the Buncefield Incident", Chapter 18, Process & Plant Safety: Applying Computational Fluid Dynamics, Schmidt, J. (Editor), Wiley-VCH, 2012.
2. Craft T.J., Gant S.E., Gerasimov A.V., Iacovides H., and Launder B.E. "Numerical modeling of heat transfer in wall-adjacent turbulent flows" Chapter 11, Handbook of Numerical Heat Transfer, 2nd Edition, Minkowycz, Sparrow & Murthy (Editors), ISBN 0-471-34878, 2006

Reports

1. Gant S., Tickle G., Tucker H., McKenna B., Batt R., Kelsey A., Garcia M., McGillivray A., Stewart J. and Wardman M. "Jack Rabbit II chlorine release experiments: HSE scientific contribution and main findings", Health and Safety Executive Research Report RR1174.
2. Hooker P. and Gant S. "HyDeploy 2 - Gas characteristics - Summary and Interpretation", Health and Safety Executive Report EA/20/9.
3. Kelsey A., Pocock D., Stewart J. and Gant S. "HyDeploy 2 - Gas characteristics - Accumulation", Health and Safety Executive Report FD/20/03.
4. Gant S., Halford A., Atkinson G., Kelsey A., Torrado D., Hooker P., Lander D., Isaac T., Oxley R., Garrison A., Goff R. and Spriggs C. "Preliminary analysis of gas release and dispersion behaviour relevant to the use of hydrogen in the natural gas distribution network", Health and Safety Executive Report FD/20/02, 2020.
5. Bannister A., Chaplin Z. and Gant S. "Role of Local Transmission Systems (LTS) in the Decarbonisation Pathway. Phase 1: LTS Pipeline Characterisation and Feasibility Study", Health and Safety Executive Report EM/19/38.
6. Gant S.E. and Atkinson G.T. "Buncefield investigation: dispersion of the vapour cloud" Health and Safety Executive, Research Report RR1129, 2019.
7. Coldrick S. and Gant S.E., "CFD modelling of oil mists for area classification", Health and Safety Executive, Research Report RR1111, 2018.

8. Bettis R., Burrell G., Gant S.E., Coldrick S., Mouzakis K. and Giles A., "Area classification for oil mists - final report of a Joint Industry Project", Health and Safety Executive, Research Report RR1107, 2018.
9. Gant S.E., Pursell M., McGillivray A., Wilday J., Wardman M. and Newton A. "Overview of Carbon Capture and Storage (CCS) Projects at HSE's Buxton Laboratory", Health and Safety Executive, Research Report RR1121, 2017
10. Ivings M.J., Gant S.E., Jagger S.F., Lea C.J., Stewart J.R. and Webber D.M. "Evaluating vapor dispersion models for safety analysis of LNG facilities", Final report for the Fire Protection Research Foundation, Quincy, Massachusetts, USA, September 2016
11. Stewart J.R., Coldrick S., Lea C.J., Gant S.E. and Ivings M.J. "Guide to the LNG model validation database version 12", Final report for the Fire Protection Research Foundation, Quincy, Massachusetts, USA, September 2016
12. Gant S.E. "Generation of flammable mists from high flashpoint fluids: literature review", Health and Safety Executive, Research Report RR980, 2013.
13. Atkinson G.T. and Gant S.E. "Flammable vapour cloud risks from tank overfilling incidents" Health and Safety Executive, Research Report RR937, 2012
14. Gant, S.E., Lea, C.J., Pursell, M., Fletcher, J., Rattigan, W., Thyer, A., Connolly, S. "Flammability of hydrocarbon and carbon dioxide mixtures: measurements and modelling", HSL Report MSU/2010/21, 2011.
15. Gant, S.E. "CFD Simulations of Spray Releases from Gasoline Pipelines", HSL Report MSU/2010/20, 2010.
16. McGillivray, A., Gant, S.E. And Cruse, H. "PHAST Simulations of Spray Releases from Gasoline Pipelines", HSL Report FP/2010/28, 2010.
17. Gant, S. E. and Hoyes, J. "Review of FLACS version 9.0: Dispersion modelling capabilities", Health and Safety Executive Report RR779, 2010.
18. Webber, D.M., Gant S.E., Ivings, M.J. and Jagger, S.F., "LNG Source term models for hazard analysis: a review of the state-of-the-art and an approach to model assessment", Final Report MSU/2008/24, The Fire Protection Research Foundation, March 2009.
19. Ivings, M. J., Clarke, S., Gant, S. E., Fletcher, B., Heather, A., Pocock, D. J., Pritchard, D. K., Santon, R. and Saunders, C. J. "Area classification for secondary releases from low pressure natural gas systems", Health and Safety Executive Report RR630, 2008.
20. Lea, C. J. and Gant, S. E. "Final report on Efectis' CFD simulations of fire on a channel tunnel HGV shuttle", HSL Report MSU/2008/05, 2008.
21. Kay, J., Thyer, A. M. and Gant, S. E. "Investigations into the effects of carbon dioxide and nitrogen on the flammability limits of gases", HSL Report PS/08/06, 2008.
22. Gant, S.E. "CFD Modelling of the Pirbright Drainage System", HSL Report MSU/2007/16, 2007.
23. Gant S.E., Heather A. and Kelsey A. "CFD models for evaporating hydrocarbon sprays", HSL Report CM/07/04, 2007.
24. Atkinson, G. and Gant S.E. "Buncefield Investigation: Liquid flow and vapour production", HSL Report FS/06/09, 2007.
25. Gant S.E. and Atkinson, G. "Buncefield Investigation: Dispersion of the vapour cloud", HSL Report CM/06/13, 2007.
26. Gant S.E. "CFD modelling of water spray barriers", HSL Report HSL/2006/79, 2006.
27. Gant S.E. and Kelsey A. "Factors influencing the indoor transport of contaminants and modelling implications", HSL Report HSL/2006/29, 2006.
28. Gant S.E. "Large-eddy simulation of gas dispersion in a room", HSL Report HSL/2006/28, 2006.
29. Gant S.E. and Ivings M.J. "CFD modelling of low pressure jets for area classification", HSL Report HSL/2005/11, 2005.

30. Gant S.E. and Iving M.J. "CFD modelling of low pressure 'coke oven gas' jets", HSL Report CM/05/08, 2005.

Other

1. Scientific evaluation of a proposed research project for Belgian Defence, June 2024
2. Scott S., Timmis R., McDonald A., Shi J.P., Strickland S., Carruthers D., Robins A., Tong S., Smith J., Bedwell P., Mayes P., Hort M., Gant S. and O'Brien M. "Guidelines for the preparation of short-range dispersion modelling assessments for compliance with regulatory requirements: an update to the ADMLC 2004 guidance", Atmospheric Dispersion Modelling Liaison Committee Report ADMLC-R12. <https://admlc.com/model-guidelines/>
3. Stewart J., Gant S.E. and Bilio M. "A review of the Q9 equivalent cloud method" FABIG Technical Newsletter, Issue 75.
4. Gant, S.E. "Axisymmetric buoyant far-field plume", Underlying Flow Regime 1-06, ERCOFTAC QNET Knowledge Base (<http://qnet-ercoftac.cfms.org.uk>), 2010.
5. Gant, S.E. "Unsteady near-field plume", Underlying Flow Regime 1-07, ERCOFTAC QNET Knowledge Base (<http://qnet-ercoftac.cfms.org.uk>), 2010.
6. Craft T.J., Gant S.E., Iacovides H., Launder B.E. and Serre E. "Three-dimensional simulation of rotor-stator cavity flow", CSAR Focus Magazine, Edition 12, 2004.
7. Gant S.E. "Development and Application of a New Wall Function for Complex Turbulent Flows", PhD Thesis, Dept. of Mechanical, Aerospace and Manufacturing Engineering, University of Manchester Institute for Science and Technology (UMIST) [now Manchester University], November 2002